



DOCTORATE OF BUSINESS ADMINISTRATION

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FROM DISRUPTIVE INNOVATION TO META-INNOVATION: RECONCEPTUALISING AND DIRECTING INNOVATION AT SCALE

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A handwritten signature in black ink that reads "Shereen Amos". The script is cursive and fluid, with the first name "Shereen" and the last name "Amos" clearly distinguishable.

Date: 31.5.2025

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FOREWORD

This dissertation represents the culmination of a long journey sparked by a persistent question of how we might, as a collective humanity, effectively co-create deeply regenerative and equitable solutions for how we live in this world.

As our global challenges grow increasingly complex and interconnected – from climate change to social inequality to technological transformation – I have observed with both fascination and concern how our traditional approaches to innovation often fall short. We develop brilliant solutions in isolated domains that fail to address systemic interdependencies. We create technological marvels without sufficiently considering their social implications. We pursue commercial innovation that sometimes comes at environmental cost.

These observations led me to explore disruptive innovation – a concept that has profoundly shaped how we understand transformative change – and to trace its evolution toward more collaborative, systemic forms. What began as an investigation into how disruptive innovation has expanded beyond its original conceptualisation, gradually revealed something more profound: the emergence of meta-innovation as a higher-order phenomenon that involves multiple actors and works across multiple systems, domains, and levels simultaneously.

This work offers not just theoretical advancement but a framework for how we might collectively orchestrate innovation at a scale commensurate with our most pressing challenges. It represents my contribution to a collaborative movement committed to creating more regenerative and equitable systems through deliberate, multi-domain transformation. The Meta-Innovation Praxis presented here is offered as a humble tool for those engaged in this vital work – ecosystem builders, policymakers, entrepreneurs, and change agents who recognise that addressing our complex interconnected challenges requires new approaches to how innovation itself unfolds.

My hope is that this dissertation provides both theoretical clarity and practical guidance for those working at the frontiers of systemic change. In offering this work, I join countless others who are committed to this path of collaborative transformation. If these ideas contribute even modestly to our collective ability to address complex challenges through coordinated innovation, this research will have fulfilled its purpose.

ABSTRACT

This dissertation investigates the evolution of disruptive innovation theory in contemporary contexts characterised by unprecedented technological change, environmental urgency, and social transformation. Since its introduction by Bower and Christensen (1995), disruptive innovation theory has profoundly shaped how scholars, practitioners, and policymakers understand transformative innovation dynamics and competitive change. However, as innovation increasingly unfolds through complex collaborative arrangements rather than isolated firm actions, the original conceptualisation faces significant explanatory limitations.

Despite disruptive innovation's enduring influence, the contexts in which innovation unfolds today bear little resemblance to those that shaped the original theory. Digital technologies have blurred industry boundaries and enabled ecosystem and platform-based business models. Environmental imperatives have created demands for solutions that preserve and regenerate natural and socio-technical systems. While scholars have progressively expanded disruptive innovation theory to address these changes, this expansion has occurred without a cohesive theoretical framework, creating a significant gap between established theory and contemporary innovation phenomena.

This dissertation, through three papers, develops a more comprehensive understanding of disruptive innovation by investigating how the concept has been reconceptualised for contemporary contexts, how disruptive innovation manifests through different configurations with distinctive characteristics, and how entrepreneurs intentionally direct disruptive innovation ecosystem emergence through specific practices. The research employs mixed-methods across these three papers: bibliometric analysis and systematic review to trace disruptive innovation's evolution, theoretical analysis to develop a configurational framework, and qualitative process research through a longitudinal case study of Regen Farmers Mutual to identify entrepreneurial practices in ecosystem development.

The research reveals how disruptive innovation has expanded from a firm-centric competitive phenomenon to a multi-dimensional force for ecosystem and societal transformation. It identifies three distinct configurations – enterprise-led, innovation ecosystem, and socio-technical system – through which disruptive innovation manifests in different contexts. Through the process model of ecosystem work it also illuminates seven micro-practices contributing to six directing processes that entrepreneurs deploy to direct disruptive innovation ecosystem emergence across developmental stages.

From further synthesis of these three papers emerges a new theoretical construct, meta-innovation, which represents a fundamental reconceptualisation of how innovation processes themselves can be transformed to address complex challenges that span multiple domains simultaneously. This emergent construct is precisely defined through necessary and sufficient conditions that distinguish it from adjacent innovation concepts, with a practical framework for implementation. The meta-innovation concept and praxis offer both theoretical advancement and practical guidance for addressing complex interconnected challenges. Future research could productively examine meta-innovation across diverse contexts, investigate the capabilities and leadership approaches it requires, explore the evolution of governance arrangements, and develop more nuanced approaches to evaluation and impact assessment.

For organisational leaders and entrepreneurs, this dissertation provides practical frameworks for navigating increasingly complex innovation landscapes, enabling strategic decisions about which innovation pattern best suits specific challenges and contexts. For investors and funders, it challenges conventional investment logics by revealing the non-linear development trajectory of contemporary innovation. For policymakers, it highlights how policy approaches need to evolve to support innovation at scale, developing new metrics that capture ecosystem-level impacts and multi-dimensional value creation.

Key words: meta-innovation, disruptive innovation, innovation ecosystems, ecosystem orchestration, entrepreneurial direction, socio-technical transitions, configurational theory, multi-level innovation

ABSTRAIT

Cette thèse étudie l'évolution de la théorie de l'innovation de rupture dans des contextes contemporains caractérisés par des changements technologiques sans précédent, une urgence environnementale et une transformation sociale. Depuis son introduction par Bower et Christensen (1995), la théorie de l'innovation de rupture a profondément façonné la manière dont les chercheurs, les praticiens et les décideurs politiques appréhendent la dynamique de l'innovation de rupture et l'évolution concurrentielle. Cependant, l'innovation se déployant de plus en plus par le biais d'accords collaboratifs complexes plutôt que par des actions isolées des entreprises, sa conceptualisation initiale se heurte à d'importantes limites explicatives.

Malgré l'influence durable de l'innovation de rupture, les contextes dans lesquels elle se déploie aujourd'hui ressemblent peu à ceux qui ont façonné la théorie initiale. Les technologies numériques ont brouillé les frontières sectorielles et permis l'émergence de modèles économiques basés sur des écosystèmes et des plateformes. Les impératifs environnementaux ont créé une demande de solutions qui préservent et régénèrent les systèmes naturels et sociotechniques. Si les chercheurs ont progressivement élargi la théorie de l'innovation de rupture pour répondre à ces changements, cette expansion s'est faite sans cadre théorique cohérent, créant un fossé important entre la théorie établie et les phénomènes d'innovation contemporains.

Cette thèse, à travers trois articles, développe une compréhension plus holistique de l'innovation de rupture en examinant comment le concept a été reconceptualisé pour les contextes contemporains, comment l'innovation de rupture se manifeste à travers différentes configurations aux caractéristiques distinctes, et comment les entrepreneurs pilotent intentionnellement l'émergence d'un écosystème d'innovation de rupture par des pratiques spécifiques. La recherche utilise des méthodes diverses dans ces trois articles : analyse bibliométrique et revue systématique pour retracer l'évolution de l'innovation de rupture ; analyse théorique pour développer un cadre configurationnel ; et recherche qualitative des processus à travers une étude de cas de Regen Farmers Mutual pour identifier les pratiques entrepreneuriales dans le développement de l'écosystème.

La recherche révèle comment l'innovation de rupture est passée d'un phénomène concurrentiel centré sur l'entreprise à une force multidimensionnelle de transformation de l'écosystème et de la société. Elle identifie trois configurations distinctes – dirigée par l'entreprise, écosystème d'innovation et système sociotechnique – à travers lesquelles l'innovation de rupture se manifeste dans différents contextes. Grâce au modèle de processus

du travail écosystémique, elle met également en lumière sept micro-pratiques contribuant à six processus directeurs que les entrepreneurs déploient pour piloter l'émergence d'un écosystème d'innovation de rupture à travers les étapes de développement.

De la synthèse de ces trois articles émerge un nouveau concept théorique, la méta-innovation, qui représente une reconceptualisation fondamentale de la manière dont les processus d'innovation eux-mêmes peuvent être transformés pour relever des défis complexes couvrant simultanément plusieurs domaines. Ce concept émergent est précisément défini par des conditions nécessaires et suffisantes qui le distinguent des concepts d'innovation adjacents, avec un cadre pratique pour sa mise en œuvre. Le concept et la pratique de la méta-innovation offrent à la fois des avancées théoriques et des orientations pratiques pour relever des défis complexes et interconnectés. Les recherches futures pourraient examiner de manière productive la méta-innovation dans divers contextes, étudier les capacités et les approches de leadership qu'elle requiert, explorer l'évolution des dispositifs de gouvernance et développer des approches plus nuancées en matière d'évaluation et d'analyse d'impact.

Pour les dirigeants d'organisations et les entrepreneurs, cette thèse fournit des cadres pratiques pour naviguer dans des environnements d'innovation de plus en plus complexes, facilitant des décisions stratégiques quant au modèle d'innovation le mieux adapté aux défis et aux contextes spécifiques. Pour les investisseurs et les bailleurs de fonds, elle remet en question les logiques d'investissement conventionnelles en révélant la trajectoire de développement non linéaire de l'innovation contemporaine. Pour les décideurs politiques, elle met en évidence la manière dont les approches politiques doivent évoluer pour soutenir l'innovation à grande échelle, en développant de nouvelles mesures qui capturent les impacts au niveau de l'écosystème et la création de valeur multidimensionnelle.

Mots clés: méta-innovation, innovation de rupture, écosystèmes d'innovation, orchestration des écosystèmes, agence entrepreneuriale, transitions sociotechniques, théorie configurationnelle, innovation multi-niveaux

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CHAPTER 1: INTRODUCTION

1.1 Introduction

In an era marked by unprecedented technological change, environmental urgency, and social transformation, innovation has emerged as a central mechanism through which societies address complex challenges. Since the mid-1990s, rooted in Schumpeter's (1942) concept of creative destruction, disruptive innovation theory has profoundly shaped how scholars, practitioners, and policymakers understand transformative innovation dynamics and competitive change. Introduced by Bower and Christensen (1995) and later expanded by Christensen and Raynor (2003), disruptive innovation offered a compelling narrative of how new entrants with initially inferior but more accessible offerings could eventually displace established incumbents – transforming industries and creating new value propositions in the process.

Disruptive innovation, as originally defined by Christensen, refers to a process whereby new entrants introduce simpler, more affordable products or services that initially serve less demanding customers at the low end of the market or create entirely new markets. These innovations typically underperform on attributes valued by mainstream customers but excel on other dimensions such as price, convenience, or simplicity. Over time, as these offerings improve, they move upmarket to serve mainstream customers, eventually displacing established incumbents who were focused on sustaining innovations for their most demanding customers.

Yet the contexts in which innovation unfolds today bear little resemblance to those that shaped the original theory. Digital technologies have blurred industry boundaries and enabled platform-based business models that connect previously separate domains (Antonio & Kanbach, 2023; Kumaraswamy, Garud, & Ansari, 2018; Palmié, Wincent, Parida, & Caglar, 2020; Si & Chen, 2020). Environmental imperatives have created new demands for sustainable solutions that preserve and regenerate natural and socio-technical systems (Kuokkanen, Uusitalo, & Koistinen, 2019). In response to these changing contexts, scholars have progressively expanded, critiqued, and reconceptualised disruptive innovation, extending the concept beyond its original firm-centric, technology-focused framing toward more collaborative, ecosystem-oriented, and societally transformative understandings (Ansari, Garud, & Kumaraswamy, 2016; Cozzolino, Verona, & Rothaermel, 2018; Geels, 2004; Kivimaa & Rogge, 2022; Kumaraswamy et al., 2018; Ma, Rong, Mangalagiu, Thornton, & Zhu, 2018; Ozalp, Cennamo, & Gawer, 2018; Palmié et al., 2020).

Despite these important extensions, the field lacks a comprehensive framework that coherently explains how disruptive innovation manifests across different organisational arrangements, how it unfolds in varied contexts, and how entrepreneurs intentionally shape its trajectory. Practitioners, too, face growing uncertainty about how to effectively navigate increasingly complex innovation landscapes where success depends not only on individual firm capabilities but on orchestrating complementary innovations across organisational boundaries and system levels.

This dissertation addresses these theoretical and practical challenges through three papers that collectively advance our understanding of disruptive innovation in contemporary contexts. By, first, tracing the concept's evolution from a firm-level competitive phenomenon to a multi-dimensional force for ecosystem and societal transformation, second, developing a configurational framework that identifies distinct patterns of disruptive innovation, and third, examining the concrete activities through which entrepreneurs direct disruptive innovation ecosystem emergence, development, and integration, the research provides both theoretical clarity and practical guidance for those seeking to harness disruptive innovation's transformative potential across traditional boundaries.

1.2 Research Aims and Questions

This dissertation aims to develop a more comprehensive and nuanced understanding of disruptive innovation that reflects its diverse manifestations in contemporary contexts and provides practical guidance for innovation orchestration. To achieve this aim, the research addresses three questions across three papers, which collectively illuminate the emergence of meta-innovation as a higher-order phenomenon.

The first is, *how has disruptive innovation been collectively reconceptualised to address contemporary innovation contexts?* This paper examines how scholars have expanded and transformed disruptive innovation theory over time, identifying key expansionary characteristics and tracing their evolution across distinct periods. It showed disruptive innovation manifesting in fundamentally different ways without a coherent theoretical framework to frame and include this diversity.

This fragmentation directly motivated the second question, *how does disruptive innovation manifest through different configurations, and what are their distinctive characteristics?* This paper develops a configurational framework that identifies three distinct patterns of disruptive innovation, examining how they differ across key dimensions and what capabilities they require. The first paper's finding that different "expansions" were actually coherent patterns rather than random variations led directly to the second paper's central

insight: what appeared to be theoretical confusion was actually three distinct configurations operating simultaneously in contemporary innovation landscapes. This understanding raised a new theoretical question: if these three patterns exist, how do they actually come about? The framework provided the "what" but not the "how." This gap was particularly acute for the innovation ecosystem configuration, which appeared most frequently in contemporary contexts but lacked process understanding in the literature.

This gap informed the third question, *how do entrepreneurs intentionally direct disruptive innovation ecosystem emergence, development, and integration through micro-level practices?* This paper investigates the concrete entrepreneurial practices that shape disruptive innovation ecosystem emergence and integration, examining how entrepreneurs orchestrate collaborative arrangements that enable transformative innovation at scale.

Together, these research questions form a progressive inquiry that moves from understanding disruptive innovation's conceptual evolution, to identifying its distinct manifestations, to examining how it is intentionally directed by entrepreneurs in practice. This integrated approach enables a more comprehensive understanding of disruptive innovation while revealing a higher-order phenomenon that emerges at the intersection of these investigations: meta-innovation.

Meta-innovation – the innovation of innovation processes at scale – represents a fundamental reconceptualisation of how innovation itself is organised, directed, and performed across organisational boundaries and system levels. By integrating insights across the three papers, this dissertation aims to conceptualise this emerging phenomenon and its potential for addressing complex contemporary challenges that exceed the capabilities of traditional innovation approaches. This synthesis enables the articulation of a precisely defined construct with clear boundaries distinguishing it from adjacent innovation concepts.

This theoretical development is complemented by a fourth aim: *to translate these conceptual insights into practical frameworks that can guide implementation of meta-innovation in diverse contexts.* Through the development of the Meta-Innovation Praxis, the research seeks to bridge theory and practice, providing practitioners with actionable tools for diagnosing, designing, and directing innovation initiatives that transcend traditional boundaries to address complex, interconnected challenges.

1.3 Overview of Research Papers

1.3.1 Reconceptualising Disruptive Innovation: From Disrupting Incumbents to Transforming Society

The first paper presents an integrative framework that systematises how scholars have collectively reconceptualised disruptive innovation to address contemporary innovation contexts. Through systematic bibliometric analysis and synthesis of literature from 1995 to 2023, the paper identifies four distinct but interrelated expansionary characteristics across which researchers have extended the concept: value creation (from technology-centric to collective value propositions); market evolution (from niche market entry to market creation and transformation); innovation alignment (from firm-centred to multi-actor, multi-level coordination); and context and impact (from industrial settings with commercial outcomes to diverse contexts with societal transformation).

This analysis reveals how disruptive innovation has transformed from a concept used primarily to inform innovation strategies to one that also addresses grand challenges, pursues collective ambitions, and drives large-scale societal change. By synthesising this expansionary perspective, the paper provides a broader theoretical foundation that acknowledges scholarly efforts to adapt the theory to changing technological, market, and societal contexts.

1.3.2 Configurations of Disruptive Innovation: Enterprise-Led, Innovation Ecosystem, and Socio-Technical System

The second paper introduces a configurational approach to disruptive innovation. Rather than treating disruptive innovation as a uniform concept with a singular trajectory, it conceptualises it as a multifaceted phenomenon that manifests through distinct patterns or configurations. Through theoretical analysis and synthesis, the paper identifies three distinct configurations – enterprise-led, innovation ecosystem, and socio-technical system – each characterised by unique patterns across five differentiating dimensions: structure, value creation, competition, scale and scope, and capabilities.

The enterprise-led configuration most closely resembles Christensen's original concept but recognises more complex coevolutionary processes. The innovation ecosystem configuration captures how disruptive innovation emerges from networks of interdependent actors collectively creating value through shared propositions. The socio-technical system configuration extends the concept to encompass innovation processes that transform entire socio-technical systems around grand societal challenges and higher-order ambitions.

By reconceptualising disruptive innovation through this configurational lens, the paper moves beyond the limitations of the original concept toward a more inclusive understanding

that better reflects the diverse manifestations of disruptive innovation in contemporary contexts. This configurational framework provides both theoretical clarity and practical guidance for navigating varied forms of disruptive innovation across different organisational, institutional, and societal settings.

1.3.3 Ecosystem Work – Entrepreneurial Direction in Innovation Ecosystem Emergence and Integration: Regen Farmers Mutual, a Case Study

The third paper examines how entrepreneurs intentionally direct disruptive innovation ecosystem emergence, development, and integration through concrete practices. Through a longitudinal study of Regen Farmers Mutual in Australia, the paper develops a process-oriented, practice-based model of ecosystem work that identifies seven micro-practices – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – that contribute to six directing processes – mobilising, architecting, manifesting, scaling, integrating, and embedding. Through these processes, entrepreneurs intentionally steer the emergence, development, and integration of innovation ecosystems across three developmental stages – ecosystem co-design, ecosystem co-development, and ecosystem readiness.

The findings reveal how these micro-practices evolve in sophistication and formalisation across developmental stages while simultaneously producing impacts at micro- (niche), meso- (regime), and macro-system (landscape) levels. This multi-level visualisation demonstrates how early investments in foundation-building enable accelerated development in later stages and how entrepreneurs navigate the complex temporal, relational, and structural dynamics of ecosystem development.

By providing an integrated, practice-based understanding of how entrepreneurs direct innovation ecosystems, this research contributes to both theoretical advancement and practical guidance for orchestrating multi-actor innovation in service of addressing pressing societal, economic, and environmental challenges and opportunities.

1.3.4 Meta-Innovation: Construct and Praxis

Building on the theoretical foundations established in the three research papers, Chapter 7 introduces meta-innovation as an emerging construct that represents innovation at scale involving multiple actors across multiple systems, domains, and levels simultaneously. Meta-innovation can be defined as a meta-scale and multi-level innovation process to realise higher-order visions and integrated value propositions and solve complex interconnected grand challenges that demand coordinated transformation across organisational, ecosystem, domain, and socio-technical boundaries simultaneously.

The chapter systematically examines the defining characteristics of meta-innovation, including its multi-dimensional integration, cross-configurational orchestration, and multi-level transformation capabilities. It explores the mechanisms and dynamics through which meta-innovation operates, including orchestration mechanisms (vision articulation, multi-actor co-creator recruitment, transdisciplinary knowledge integration) and operational mechanisms (market and institutional reconfiguration, technological and social recombination, multi-level embedding).

The chapter then translates these conceptual insights into a practical framework – the Meta-Innovation Praxis. This framework bridges theory and practice by providing an actionable approach for diagnosing, designing, and directing meta-innovation initiatives across diverse contexts. Organised into four interconnected domains – vision and opportunity space, ecosystem architecture, implementation strategy, and scaling and integration – with a central hub of cross-domain integrative elements, the Meta-Innovation Praxis guides practitioners through the complex process of reconceptualising innovation processes across organisational boundaries.

1.4 Integrated Research Design and Methods

This dissertation employs a mixed-methods approach that combines systematic bibliometric analysis, theoretical development, and in-depth qualitative process research. This methodological diversity was essential to address the multifaceted nature of the research questions and to capture disruptive innovation’s evolution across multiple levels of analysis – from broad conceptual developments to specific entrepreneurial practices.

The research design follows a deliberate progression that mirrors the theoretical journey from understanding what disruptive innovation has become, to how it manifests in different forms, to how it is actively shaped by entrepreneurs. This sequential approach allowed each study to build upon insights from the previous work while addressing distinct dimensions of the phenomenon.

Paper 1 employs bibliometric analysis using the ARTIREV tool to systematically map the disruptive innovation literature from 1995 to 2023. This method was specifically chosen to address our first research question about how disruptive innovation has been reconceptualised over time. By combining co-citation analysis (identifying foundational “schools of thought”) and bibliographic coupling analysis (mapping current research frontiers), we could trace both the intellectual foundations and emerging trajectories of the field. The subsequent systematic content review of key documents enabled identification of four expansionary characteristics, providing an integrative framework for understanding the concept’s evolution.

Paper 2 utilises theoretical analysis and synthesis to develop a configurational framework. This approach was necessary to move beyond cataloguing variations to understanding distinct patterns in how disruptive innovation manifests. Through systematic comparison of how five key dimensions – structure, value creation, competition, scale and scope, and capabilities – express themselves across different contexts, we identified three coherent configurations. This theoretical synthesis method allowed us to bridge previously disconnected literatures (innovation ecosystems, platforms, socio-technical transitions) while maintaining conceptual clarity.

Paper 3 adopts qualitative process research through a longitudinal case study of Regen Farmers Mutual. This methodological choice was driven by the need to understand not just what innovation ecosystems are, but how entrepreneurs actively shape their emergence. By combining 25 semi-structured interviews, participant observation, and documentary analysis over a two-year period, we could trace the micro-practices and directing processes through which entrepreneurs orchestrate ecosystem development. The process research approach – employing narrative analysis, temporal bracketing, and visual mapping – enabled us to capture both the temporal dynamics and multi-level complexity of ecosystem work.

This methodological progression creates a comprehensive understanding that no single method could achieve. The bibliometric analysis provides the broad conceptual landscape; the theoretical synthesis offers structured frameworks for understanding variation; and the qualitative process research reveals the mechanisms through which complex innovation unfolds in practice. Together, these complementary methods enable the conceptualisation of meta-innovation as an emergent phenomenon that transcends traditional analytical boundaries, providing both theoretical advancement and practical insight for orchestrating innovation in increasingly complex contexts.

1.5 Significance and Contributions

This dissertation makes several significant contributions to both theory and practice. By developing an expansionary framework, a configurational approach, and a process model of ecosystem work, the research advances theoretical understanding of disruptive innovation while providing practical guidance for disruptive innovation orchestration at scale.

For scholars, the dissertation offers a more inclusive conceptualisation of disruptive innovation that accommodates its diverse manifestations while maintaining conceptual integrity. By identifying expansionary characteristics, distinct configurations, and concrete entrepreneurial activities, the research provides a more nuanced framework for analysing disruptive innovation across different contexts and organisational arrangements.

For policymakers, the dissertation highlights how policy approaches need to evolve to support innovation at scale, as well as the importance of creating enabling environments for cross-domain collaboration rather than focusing solely on individual organisations or sectors. For organisational leaders and entrepreneurs, the research provides both conceptual clarity and practical guidance for navigating increasingly complex innovation landscapes. The temporal insights from Paper 3 highlight the strategic importance of patient foundation-building in early stages of ecosystem development, enabling leaders to make more informed investments in relationship-building and collaborative infrastructure before pursuing rapid scaling.

For ecosystem orchestrators, the research offers detailed insights into the practices and processes required to coordinate action across diverse stakeholders without relying on hierarchical control. The ecosystem work model in Paper 3 provides practical guidance for establishing directional momentum, designing collaborative value creation mechanisms, and institutionalising ecosystem-wide governance arrangements.

For impact investors and funders, the dissertation challenges conventional investment logics by revealing the distinctive non-linear development trajectory of meta-innovation. It points to the need for new metrics for evaluating potential and progress that account for multi-dimensional value creation and system-level transformation rather than focusing solely on firm-level outcomes.

Beyond these contributions, the dissertation introduces meta-innovation as an integrative theoretical construct that emerges from the synthesis of the three papers. This construct illuminates how innovation processes themselves are being fundamentally reimaged and reconfigured to address the unprecedented challenges and opportunities of contemporary contexts. Meta-innovation provides a valuable lens for understanding and directing innovation efforts that transcend traditional organisational and sectoral boundaries.

The development of the Meta-Innovation Praxis further enhances this practical contribution by translating theoretical insights into an actionable framework. This praxis serves as a bridge between theory and practice, offering practitioners a structured approach for diagnosing innovation landscapes, designing ecosystem architectures, implementing strategic initiatives, and orchestrating scaling pathways.

Through this new theoretical construct, the dissertation offers a framework for how society can mobilise collective innovation capacity to address grand challenges and drive regenerative socio-technical transitions. Meta-innovation represents more than a descriptive theory; it provides an actionable blueprint for how diverse stakeholders can collaboratively reconfigure innovation processes at scale to generate transformative solutions for complex

societal, economic, and environmental challenges. This perspective opens pathways for innovation that is simultaneously ambitious in scope and practical in implementation, connecting visionary aspirations with concrete orchestration mechanisms that can reshape systems toward more sustainable and equitable futures.

1.6 Dissertation Structure

The remainder of this dissertation is structured as follows:

Chapter 2: Theoretical Framework and Literature Review. This chapter provides a broad overview of theoretical developments that underpin this dissertation's examination of disruptive innovation in contemporary contexts, given that each paper in this dissertation has its own comprehensive theoretical background.

Chapter 3: Research Methodology. This chapter presents the overarching methodological framework that guided this dissertation's investigation, detailing the philosophical foundations, integrated research design, specific methods employed in each paper, and quality considerations.

Chapter 4: Paper 1 - Reconceptualising Disruptive Innovation: From Disrupting Incumbents to Transforming Society. This chapter presents the first paper, which develops an expansionary framework that systematises how scholars have collectively reconceptualised disruptive innovation across four expansionary characteristics.

Chapter 5: Paper 2 - Configurations of Disruptive Innovation: Enterprise-Led, Innovation Ecosystem, and Socio-Technical System. This chapter presents the second paper, which introduces a configurational approach to disruptive innovation, identifying three distinct patterns through which it manifests in contemporary contexts.

Chapter 6: Paper 3 - Ecosystem Work – Entrepreneurial Direction in Innovation Ecosystem Emergence and Integration: Regen Farmers Mutual, a Case Study. This chapter presents the third paper, which examines the concrete entrepreneurial practices that direct innovation ecosystem emergence, development, and integration.

Chapter 7: Meta-Innovation: Construct and Praxis. This chapter synthesises insights from the three papers to conceptualise meta-innovation – the innovation of innovation processes at scale – as an emerging theoretical construct with significant implications for future research and practice.

CHAPTER 2: THE EVOLUTION OF DISRUPTIVE INNOVATION THEORY: A LITERATURE REVIEW

2.1 Introduction

The literature on disruptive innovation reflects a significant evolution since its initial introduction. When Bower and Christensen (1995) first presented the concept of “disruptive technology”, they described a process where new entrants target low-end market segments with initially inferior but adequate technologies that gradually improve until they displace established incumbents. Christensen (1997) refined this theory in *The innovator’s dilemma: When new technologies cause great firms to fail*, providing a clear definition of disruptive innovation as a process whereby a new entrant with fewer resources can successfully challenge established incumbent businesses by targeting overlooked segments with simpler, more affordable products or services that mainstream customers initially view as inferior. As these offerings improve along traditional performance trajectories, they eventually satisfy the requirements of mainstream customers, displacing established market leaders.

Christensen and Raynor (2003) subsequently expanded this to “disruptive innovation”, encompassing not only technological products but also services and business models. This represented an important theoretical progression from a descriptive framework of technology change to an explanatory theory of disruptive innovation and competitive response (Christensen et al., 2018).

Analysis of the foundational literature reveals that the original conceptualisation positioned disruptive innovation as a primarily firm-level competitive phenomenon. It emphasised technology-centric value creation focused on performance-price trade-offs, binary competitive dynamics between disruptors and incumbents, clear organisational boundaries, and effects concentrated within established industry structures (Bower & Christensen, 1995; Christensen, 1997).

Despite its widespread adoption in both academic and practitioner circles, scholars have identified persistent limitations in the original theory. Critical analyses by Danneels (2004), Henderson (2006), Markides (2006), Tellis (2006), and Yu and Hang (2010) among others, questioned the theory’s deterministic view of incumbent failure, its limited applicability to non-technological innovations, and its binary framing of competitive dynamics as sustaining or disruptive, and incumbent versus new entrant. King and Baatartogtokh (2015) examined 77 alleged cases of disruptive innovation and found that many did not conform to the theory’s predictions, highlighting issues with its empirical validity. As contemporary innovation

landscapes have grown increasingly complex, these theoretical constraints have become more pronounced, spurring scholars to expand and reconceptualise the theory (Ansari et al., 2016; Kivimaa & Rogge, 2022; Kumaraswamy et al., 2018; Ma et al., 2018; Ozalp et al., 2018; Palmié et al., 2020).

2.2 Evolutionary Shifts in Disruptive Innovation Theory

Several evolutionary developments have progressively transformed our understanding of disruptive innovation to address its explanatory limitations in contemporary settings.

The first evolutionary development involves a shift from product to proposition. While the original theory focused primarily on technological performance attributes, researchers have increasingly recognised the importance of holistic value propositions that transcend product features. Initial research critical of the original conceptualisation of disruptive innovation acknowledged the significance of business model innovation (Markides, 2006; Christensen et al., 2018) and heterogeneous consumer preferences (Adner, 2002; Danneels, 2004). Recent literature has further expanded to emphasise collective value propositions orchestrated across multiple actors (Kumaraswamy et al., 2018; Palmié et al., 2020), vision-led propositions aligned with societal goals (Geels, 2002; 2004; 2018; Kivimaa & Rogge, 2022; Ma et al., 2018), and propositions addressing grand challenges like sustainability (Kuokkanen et al., 2019).

A second evolutionary shift reflects a transformation from competition to coevolution. The binary disruptor-incumbent relationship described in early theory has given way to more complex strategic interactions. Scholars have explored incumbent adaptation strategies (Cozzolino et al., 2018; Yu & Hang, 2010), collaborative innovation models and sophisticated coopetition dynamics where actors simultaneously cooperate and compete (Ansari et al., 2016; Kumaraswamy et al., 2018). This literature reveals disruptive innovation as an increasingly coevolutionary process shaped by complex interactions among multiple actors rather than simple competitive displacement et al., 2019; Schmidt, Petzold, Lahme-Hütig, & Tiemann, 2021).

A third evolutionary shift shows a progression from market entry to market creation. While the original theory emphasised entry into existing market segments, subsequent research has recognised disruptive innovation as a market-shaping force. Studies have identified diverse market entry patterns beyond the original low-end model (Govindarajan & Kopalle, 2006; Schmidt & Druehl, 2008) and the distinctive dynamics of platform-based markets (Gawer & Cusumano, 2014; Ozalp et al., 2018). Contemporary research emphasises how disruptive innovators actively create and reshape market structures (Geels, 2002, 2004; Kivimaa &

Rogge, 2022; Ma et al., 2018) establishing new connections between previously separate actors, resources, and value domains.

A fourth evolutionary shift involves an expansion from firm-level to system-level impact. The scope and scale of disruptive innovation have grown dramatically in theoretical conceptualisations. While early theory focused on firm-level competitive outcomes within defined industry boundaries, recent research examines how disruptive innovation can transform entire socio-technical systems (Geels, 2004, 2018; Kivimaa & Kern, 2016), redefine institutional arrangements, and catalyse broader societal transitions (Kivimaa & Rogge, 2022; Kuokkanen et al., 2019; Ma et al., 2018). This expanded understanding recognises disruptive innovation as a potential driver of systemic transformation rather than merely a competitive strategy.

A fifth evolutionary shift reflects a transition from single-firm capabilities to orchestration capabilities. Research has progressively recognised that successful disruptive innovation requires increasingly sophisticated capabilities for orchestrating complex networks of actors. Early theory emphasised dynamic capabilities within the firm (Teece, 2007), while more recent literature highlights capabilities for ecosystem orchestration (Adner, 2016; Jacobides, Cennamo, & Gawer, 2018), platform leadership (Gawer & Cusumano, 2014), and cross-sector coordination (Kivimaa & Rogge, 2022; Ma et al., 2018). These orchestration capabilities enable innovators to align diverse stakeholders around shared value propositions and coordinate collective action across organisational and institutional boundaries.

2.3 Disruptive Innovation in New Forms

The literature reveals that these evolutionary shifts have converged to produce three distinct forms of disruptive innovation, each representing a coherent pattern of how the phenomenon manifests in contemporary contexts.

The firm-directed form most closely aligns with Christensen's original concept but incorporates more nuanced coevolutionary dynamics (Ansari et al., 2016; Petzold et al., 2019; Schmidt et al., 2021). Research in this area emphasises centralised direction within firm boundaries (Nagy et al., 2016; Si & Chen, 2020), value creation primarily anchored within the firm's value chain (Cozzolino et al., 2018; Nagy et al., 2016; Parry & Kawakami, 2017), responsive coevolutionary competitive dynamics (Guo et al., 2019; Schmidt et al., 2021), and impacts primarily at the product or service level within industry boundaries. Studies highlight the importance of dynamic capabilities for sensing opportunities, seizing them strategically, and reconfiguring resources adaptively (Teece, 2007, 2018).

The literature on the network-directed form captures how disruptive innovation emerges from coordinated action across networks of interdependent actors. Studies emphasise distributed direction across multiple actors without hierarchical governance, boundary-spanning value creation with shared value propositions (Adner, 2016; Jacobides et al., 2018), complex competitive dynamics involving cooperation, competition, and cooptation (Ansari et al., 2016; Kumaraswamy et al., 2018), and industry-level impacts through network effects and complementary innovations (Kamolsook et al., 2019). Research highlights the importance of ecosystem orchestration capabilities, platform leadership, and interorganisational fluidity (Ansari et al., 2016; Wang et al., 2020).

Research on the system-directed form represents the most expansive reconceptualisation, extending disruptive innovation theory to encompass processes that transform entire socio-technical systems around grand societal challenges. Studies in this area examine the deliberate alignment of multiple networks around higher-order visions (Kivimaa & Rogge, 2022; Ma et al., 2018), value creation that integrates economic, social, and environmental benefits (Kuokkanen et al., 2019), policy-governed evolutionary dynamics (Kivimaa & Kern, 2016; Pinkse et al., 2014), and transformative effects across micro-, meso-, and macro-system levels (Geels, 2004; Kivimaa & Rogge, 2022). This research emphasises the importance of capabilities for working across institutional boundaries, policy experimentation, and coordinated governance across diverse value systems (Tan et al., 2020; Kivimaa & Rogge, 2022).

2.4 System-Directed Disruptive Innovation: The Leading Edge of Theory Development

The system-directed form represents the most advanced frontier of disruptive innovation theory development in the literature. While earlier conceptualisations focused on firm-level competitive dynamics or network-level collaboration, this emerging body of research examines how disruptive innovation can drive systemic transformation across entire socio-technical landscapes.

Research by Geels (2004, 2018), Kivimaa and Rogge (2022), Kuokkanen et al. (2019), Walrave et al. (2018), and Ma et al. (2018) demonstrates how disruptive innovation in this form operates through multi-level processes that simultaneously transform technologies, market structures, institutional arrangements, and social practices. These studies reveal how coordinated disruptive innovations addressing grand challenges like climate change, sustainability transitions, or mobility transformation require sophisticated orchestration across network boundaries and governance levels.

The literature identifies several distinctive characteristics of this form. First, it involves the deliberate alignment of multiple innovation networks around higher-order visions that transcend commercial objectives (Kivimaa & Rogge, 2022; Ma et al., 2018). Second, it features value creation that spans traditionally separate value systems, integrating economic, social, environmental, and systemic benefits (Kuokkanen et al., 2019). Third, it operates through policy-governed evolutionary dynamics where intentional interventions simultaneously destabilise incumbent regimes while protecting emerging alternatives (Kivimaa & Kern, 2016; Pinkse et al., 2014). Fourth, it demonstrates transformative effects that cascade across micro (technologies), meso (industry structures), and macro (societal systems) levels (Geels, 2002, 2004; Pinkse et al., 2014).

2.5 The Problem of Theoretical Fragmentation

As this review has shown, contemporary innovation landscapes have evolved in complexity and disruptive innovation theory has expanded considerably to address limitations in the original conceptualisation of the phenomenon. However, this expansion has occurred without a coherent integrative framework, resulting in a fragmented and disconnected understanding of the phenomenon. As Si et al. (2020) observe, the concept has been extended into numerous contexts and applications without sufficient theoretical integration, making it increasingly difficult to discern how these extensions relate to the original theory or to each other.

This fragmentation poses significant challenges for both scholars and practitioners. For researchers, it complicates theory development and empirical testing, as studies often employ the same terminology while examining fundamentally different phenomena. For practitioners, it creates confusion about how disruptive innovation manifests in varied contexts and what strategies might be appropriate in different scenarios. Without a comprehensive framework that organises these diverse theoretical extensions, it becomes increasingly difficult to build cumulative knowledge or provide coherent guidance for innovation practice.

The field therefore requires a more expansive and integrative framework that can accommodate the diverse manifestations of disruptive innovation while maintaining conceptual coherence and explanatory power. Such a framework would provide scholars with a more structured approach for situating their research within the broader theoretical landscape and offer practitioners a more nuanced understanding of how disruptive innovation operates across different contexts and levels of analysis.

2.6 Advancing an Integrative Understanding

This dissertation advances the field by providing an integrative framework that systematises how disruptive innovation has been reconceptualised across multiple theoretical perspectives. By identifying and analysing the key evolutionary developments that have transformed disruptive innovation theory, it offers a coherent narrative that connects previously fragmented developments into a comprehensive understanding of how this phenomenon has evolved to address contemporary innovation contexts.

The recognition of three distinct forms of disruptive innovation – firm-directed, network-directed, and system-directed – provides a conceptual scaffold that accommodates the diverse manifestations of the phenomenon while maintaining theoretical coherence. This diverse perspective of form moves beyond binary debates about what “counts” as disruptive innovation toward a more nuanced understanding of how different patterns of disruptive innovation emerge and operate in varied contexts.

Most significantly, by illuminating the system-directed form as the most expansive reconceptualisation to date, this research positions disruptive innovation theory at the frontier of addressing grand societal challenges. It reveals how disruptive innovation has transformed from a primarily competitive mechanism to a powerful catalyst for systemic transformation across technological, market, institutional, and social dimensions.

Through this integrative understanding, the dissertation not only synthesises existing knowledge but also establishes a foundation for future research that can more effectively bridge theoretical domains and provide practical guidance for harnessing disruptive innovation’s transformative potential in increasingly complex environments. By reconciling diverse perspectives and revealing their interconnections, it offers both scholars and practitioners a more comprehensive lens for understanding and navigating the evolving nature of disruptive innovation in contemporary innovation landscapes.

Finally, the introduction of meta-innovation as an organising construct provides a higher-order conceptual home that links this expanded view of disruptive innovation with adjacent system-level domains including platform and ecosystem innovation, socio-technical transitions, sustainable innovation, and innovation policy. This meta-theoretical integration not only creates a more coherent framework within disruptive innovation research but also establishes meaningful theoretical relationships with previously siloed domains, enabling scholars to recognise shared patterns, complementary insights, and potential cross-pollination opportunities across these interconnected fields. By positioning disruptive innovation within this broader meta-innovation perspective, the research offers a conceptual bridge that can

facilitate more integrated theory development, empirical investigation, and practical application across the full spectrum of transformative innovation phenomena.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the overarching methodological framework that guided this dissertation's investigation of disruptive innovation in contemporary contexts. The research design reflects a deliberate progression from conceptual analysis to empirical examination, employing complementary methodological approaches across the three papers to address the central question: How does disruptive innovation manifest and evolve in contemporary organisational arrangements, and how do entrepreneurs intentionally shape the emergence and integration of a disruptive innovation ecosystem? This progression enabled a comprehensive investigation that connects macro-level theoretical developments with micro-level entrepreneurial activities while maintaining methodological rigour and coherence.

The chapter first outlines the philosophical foundations that informed the research approach, situating the dissertation within critical realist and social constructivist traditions that acknowledge both objective structures and subjective meaning-making in innovation contexts. It then details the integrated research design across the three papers, explaining how each methodological approach built upon and complemented the others to address specific dimensions of the research question. Finally, it discusses the specific methods employed in each paper, addressing data collection, analysis techniques, and quality considerations.

3.2 Philosophical Foundations

This dissertation is grounded in a critical realist perspective (Bhaskar, 1978; Archer et al., 1998) that acknowledges both the existence of objective structures and mechanisms in innovation systems and the socially constructed nature of how these structures are interpreted and enacted by actors. This philosophical stance is particularly appropriate for studying disruptive innovation, which involves both tangible technological and organisational arrangements and the meanings, narratives, and interpretations that shape how these arrangements evolve.

Critical realism's stratified ontology – distinguishing between the real (underlying structures and mechanisms), the actual (events that occur whether observed or not), and the empirical (observed events) – provides a valuable framework for understanding how disruptive innovation unfolds across multiple levels. It enables analysis of both the observable activities of entrepreneurs and organisations and the deeper structures and mechanisms that shape these activities, while recognising that our knowledge of these structures is always partial and socially mediated.

This perspective guided the methodological choices across the three papers, shaping a multi-method approach that addressed disruptive innovation from different analytical levels. Paper 1 employed a combination of systematic bibliometric analysis and content review to uncover the underlying conceptual structures within the disruptive innovation literature. Paper 2 advanced a theoretical analysis and synthesis to develop a configurational framework explaining the varied manifestations of disruptive innovation. Paper 3 applied in-depth qualitative process research to examine the concrete activities through which entrepreneurs intentionally direct innovation ecosystem emergence and integration. Together, these complementary methodologies enabled an integrated investigation of disruptive innovation at conceptual, configurational, and activity-based levels, while maintaining a coherent philosophical foundation.

3.3 Integrated Research Design

This dissertation employed a sequential mixed-methods design (Creswell & Clark, 2017) that progressed from macro-level conceptual analysis to micro-level examination of entrepreneurial activities. This progression allowed each paper to build upon insights from the previous work while addressing distinct dimensions of the research question. The integrated design created a methodological pathway from conceptual understanding to empirical observation, connecting theoretical developments with concrete entrepreneurial practices.

3.3.1 Sequential Progression of Inquiry

The research design followed a deliberate sequence that progressed from broad conceptual mapping to specific empirical examination. It began with conceptual mapping in Paper 1, which undertook a comprehensive bibliometric analysis and systematic review of the disruptive innovation literature from 1995 to 2023. This approach identified major conceptual developments, key expansionary characteristics, and evolutionary patterns in how disruptive innovation has been reconceptualised over time. Building on these insights, Paper 2 engaged in configurational analysis, using theoretical synthesis to develop a framework that captures the distinct patterns through which disruptive innovation manifests in contemporary contexts. Finally, Paper 3 employed process research through in-depth qualitative analysis to examine how entrepreneurs direct the emergence and integration of innovation ecosystems via concrete, micro-level activities. This allowed for a fine-grained understanding of how one particular configuration of disruptive innovation – the innovation ecosystem – is intentionally shaped.

The sequential progression across the three papers enabled methodological integration, with each study informing and contextualising the next, while collectively addressing the overarching research question.

3.3.2 Methodological Complementarity

The integrated research design strategically leveraged the complementarity between different methodological approaches to overcome the limitations of any single method and to develop a more comprehensive understanding of disruptive innovation. The combination of bibliometric analysis in Paper 1 and qualitative process research in Paper 3 provided both breadth and depth: the former enabled systematic mapping of the conceptual landscape, while the latter offered detailed insight into entrepreneurial activities within a specific context. Paper 2 contributed a conceptual dimension by developing theoretical frameworks to explain different manifestations of disruptive innovation, which was then grounded empirically in Paper 3 through an in-depth examination of how one of these manifestations unfolds in practice. The design also balanced structural and agentic perspectives: while the bibliometric and configurational analyses highlighted broader structural patterns in the evolution of disruptive innovation, the process research foregrounded entrepreneurial agency in shaping disruptive innovation ecosystem emergence and integration.

This methodological complementarity enabled an integrated understanding that accounts for both structure and agency, conceptual development and empirical application, as well as the expansive manifestation and detailed process of disruptive innovation.

3.4 Specific Research Methods

3.4.1 Paper 1: Bibliometric Analysis and Systematic Review

Paper 1 employed a combination of bibliometric analysis and systematic literature review to examine how disruptive innovation has been reconceptualised over time. This mixed-methods approach provided both quantitative mapping of citation patterns and qualitative analysis of conceptual developments.

Bibliometric Analysis. The bibliometric analysis utilised the ARTIREV bibliometric tool (version 1.2.6.8) to analyse citation patterns in the disruptive innovation literature. The search strategy targeted peer-reviewed articles in journals in the fields of Economics, Econometrics, Finance, Business, Management, and Accounting that included the term ‘disruptive innovation’ in titles, abstracts, or keywords.

This search yielded two complementary bibliometric outputs. The first was a co-citation analysis (CCA), which produced a map of 23 documents representing the intellectual foundations – or “schools of thought” – in disruptive innovation research. CCA examines how frequently pairs of documents are cited together by other works, thereby revealing the intellectual relationships that structure a field (Small, 1973). The second output was a bibliographic coupling analysis (BCA), which generated a map of 94 documents that reflect

current research themes or the “research front” of disruptive innovation (Jarneving, 2005). Bibliographic coupling identifies thematic clusters by examining the extent to which documents share common references.

Together, these analyses revealed both the foundational literature that shaped the development of disruptive innovation theory and the emerging areas in which the concept is currently being extended and applied. The resulting visualisations (Figures 1 and 2) mapped the intellectual structure of the field, illustrating how research on disruptive innovation has evolved from its original conceptualisation to a diverse array of contemporary applications.

Systematic Review. Building on the bibliometric mapping, a systematic review was conducted to analyse the content of key documents and trace conceptual developments across the disruptive innovation literature. This review followed an iterative coding process. In the initial phase, documents identified through the bibliometric analysis were closely read and coded to extract key theoretical developments, conceptual extensions, and contextual applications of disruptive innovation. As the analysis progressed, patterns began to emerge in how the concept had been extended across different characteristics and time periods. These recurring patterns were organised into a preliminary framework of expansionary characteristics. Through successive rounds of refinement and validation, this framework was further developed to identify four key expansionary characteristics – value creation, market evolution, innovation alignment, and context and impact – alongside three distinct periods of conceptual development.

This systematic review process enabled identification of how scholars have collectively reconceptualised disruptive innovation over time, revealing both the dimensions along which the concept has expanded and the temporal patterns of this expansion.

3.4.2 Paper 2: Theoretical Analysis and Synthesis

Paper 2 employed theoretical analysis and synthesis to develop a configurational framework of disruptive innovation. This approach draws on traditions of conceptual research in management and organisation studies, where theoretical frameworks are developed through systematic analysis and integration of existing perspectives (Cornelissen, 2017; Delbridge & Fiss, 2013).

Theoretical Analysis. The theoretical analysis involved a systematic examination of the disruptive innovation literature and adjacent fields to identify the dimensions along which different manifestations of disruptive innovation can be distinguished. Through systematic review of literature from 1995 to 2023, the analysis began by identifying five key dimensions

that characterise the varied expressions of disruptive innovation: structure, value creation, competition, scale and scope, and capabilities.

The analysis examined how each of these dimensions manifests in different contexts, examining patterns across sectors, technologies, and organisational arrangements. Through abductive reasoning, moving iteratively between empirical examples and theoretical concepts, common patterns began to emerge showing how these dimensions clustered together in systematic ways. This dimensional analysis revealed that rather than manifesting uniformly, disruptive innovation appears in distinctly different configurations depending on context, scope, and objectives.

Theoretical Synthesis. The theoretical synthesis integrated insights from the dimensional analysis into a coherent configurational framework. Based on the patterns identified through dimensional mapping, three distinct configurations were recognised – enterprise-led, innovation ecosystem, and socio-technical system – each representing a consistent constellation of interrelated dimensions. These configurations were then systematically compared across the identified dimensions to surface their distinctive characteristics, requirements, and dynamics. Through this comparative process, the configurations were consolidated into a unified theoretical framework that explains the varied manifestations of disruptive innovation while preserving conceptual clarity and coherence.

This synthetic process resulted in a configurational framework that provides both theoretical clarity regarding different manifestations of disruptive innovation and practical guidance for navigating these different configurations.

3.4.3 Paper 3: Qualitative Process Research

Paper 3 employed qualitative process research (Langley, 1999; Langley, Smallman, Tsoukas, & Van De Ven, 2013; Phillips & Ritala, 2019) to examine how entrepreneurs intentionally direct innovation ecosystem emergence through concrete activities. This approach focuses on understanding how phenomena evolve over time and is particularly appropriate for studying the dynamic processes through which innovation ecosystems develop.

Case Selection. The research focused on Regen Farmers Mutual (RFM) in Australia as a revelatory case (Yin, 2018) for examining how entrepreneurs intentionally direct the emergence of innovation ecosystems. RFM was selected because it offered a unique opportunity to observe entrepreneurial agency actively shaping a complex ecosystem at the intersection of regenerative agriculture, conservation, natural resource management, environmental markets, and green finance. The case also enabled analysis of multi-level dynamics, as it involved interaction across micro-level actors (individual farms), meso-level

networks (regional partnerships and organisations), and macro-level structures (policy frameworks and financial markets). Additionally, the research benefited from temporal access to three critical stages of ecosystem development – ecosystem co-design, ecosystem co-development, ecosystem readiness – which allowed for a longitudinal view of how entrepreneurial activities evolve and adapt across developmental phases. This purposeful case selection (Patton, 2002) enabled in-depth examination of entrepreneurial ecosystem work in a context that highlighted the phenomenon of interest.

Data Collection. The research employed multiple data collection methods to capture both the entrepreneurial activities driving RFM's development and their broader ecosystem impacts. Semi-structured interviews (25) were conducted, which included RFM's co-founder entrepreneurs, farmers and steering committee members, and key field actors who were knowledgeable about the entrepreneurs' strategies and actions. These interviews followed a protocol designed to elicit detailed accounts of specific entrepreneurial activities, decision-making processes, and strategic intentions. In addition to interviews, documentary analysis was used to examine archival materials such as websites, contextual papers, and RFM's YouTube channel and LinkedIn accounts. These documents provided insight into the entrepreneurs' outreach efforts, co-design activities, pilot projects, farmer engagement strategies, and successful case examples. The researcher also attended the RFM Trading in Regen Conference and reviewed recordings from the event to understand how the entrepreneurs publicly positioned their initiative within the broader innovation landscape. This triangulation of data sources (Patton, 2002) enhanced the validity and reliability of the findings by capturing entrepreneurial activity from multiple perspectives and through varied forms of evidence.

Data Analysis. The analysis employed a combination of three complementary approaches to process research, following guidance from Langley (1999) and Phillips and Ritala (2019).

First, narrative analysis was used to construct detailed accounts of entrepreneurial activities, decisions, reconfigurations, and strategic actions based on participant interviews. This approach offered rich, contextualised descriptions of the concrete and observable practices that constitute ecosystem work. Second, temporal bracketing was applied to decompose the data into successive periods in which entrepreneurial activities shifted in focus, sophistication, and formalisation as they contributed to six distinct processes of ecosystem development nested within three broader developmental stages. Third, visual mapping was used to trace entrepreneurial activities across RFM's timeline while capturing their multi-level impacts. This

allowed for a clearer understanding of how micro-level actions connected with and influenced meso- and macro-level system dynamics.

Through this iterative and abductive process, moving continuously between data, emerging concepts, and existing theory, a process model of entrepreneurial ecosystem work was developed that identifies seven distinct micro-level practices shaping six processes directing three stages of innovation ecosystem development.

3.5 Quality Considerations

Several strategies were employed to ensure the methodological quality and trustworthiness of the research across the three papers.

3.5.1 Validity and Reliability in Paper 1

The bibliometric analysis in Paper 1 employed several strategies to enhance validity and reliability. A systematic search strategy, grounded in clearly defined search parameters and inclusion criteria, ensured comprehensive coverage of relevant literature while maintaining a clear focus on disruptive innovation. To strengthen analytical depth, the study combined co-citation analysis and bibliographic coupling, offering complementary perspectives on the intellectual structure of the field and thereby increasing the validity of the findings. Furthermore, the systematic review component involved iterative coding and framework development, with multiple rounds of analysis and refinement. This process ensured that the resulting expansionary framework accurately reflected the patterns observed in the literature. These strategies enhanced the validity and reliability of the conceptual mapping, providing a solid foundation for subsequent papers.

3.5.2 Theoretical Integrity in Paper 2

The theoretical analysis and synthesis in Paper 2 employed several strategies to ensure theoretical integrity. The identification and analysis of key dimensions followed a systematic process that examined how disruptive innovation manifests across diverse contexts and domains. To ensure internal coherence and external distinctiveness, each configuration was then systematically compared across these dimensions. The final configurational framework was developed through the careful integration of insights from multiple theoretical domains, allowing for a conceptually coherent structure that also accommodated diverse perspectives within the broader discourse on disruptive innovation. These strategies enhanced the theoretical integrity of the configurational framework, providing a solid conceptual foundation for understanding different manifestations of disruptive innovation.

3.5.3 Trustworthiness in Paper 3

The qualitative process research in Paper 3 employed several strategies to enhance trustworthiness. The first, triangulation, was achieved by drawing on multiple data sources – including interviews, documents, and observations – and incorporating diverse informant perspectives, such as those of the entrepreneurs, farmers and steering committee members, and external stakeholders. This approach allowed for the corroboration of findings and the identification of discrepancies. The study also benefited from prolonged engagement, with the researcher involved in the case over a two-year period, enabling direct observation of how entrepreneurial activities evolved over time and across developmental phases. To further enhance credibility, emerging interpretations were subjected to member checking, whereby key insights were shared with informants for verification and clarification. This included follow-up interviews conducted after initial and ongoing analysis to test the accuracy of interpretations.

3.6 Ethical Considerations

The research adhered to established ethical guidelines, with particular attention to informed consent, confidentiality, and responsible reporting. All interview participants were fully informed about the purpose of the study and how their data would be used, and each provided informed consent prior to participation. In the case of RFM, specific permission was obtained from the entrepreneurs to identify the organisation in research outputs. Throughout the study, findings were reported in a manner that accurately reflected participant perspectives while minimising the risk of harm to individuals or organisations involved in the research.

3.7 Conclusion

The methodological approach employed in this dissertation reflects a deliberate progression from conceptual analysis to empirical examination, utilising complementary methods to address different dimensions of the research question. This integrated design enabled comprehensive investigation of disruptive innovation across multiple levels – from broad conceptual developments to specific entrepreneurial activities – while maintaining methodological rigour and coherence.

The combination of bibliometric analysis, theoretical synthesis, and qualitative process research provided both breadth and depth, capturing both macro-level patterns in how disruptive innovation has evolved conceptually and micro-level processes through which entrepreneurs shape its trajectory in practice. This methodological complementarity enabled development of a more nuanced understanding of disruptive innovation in contemporary contexts, one that accounts for both structural patterns and entrepreneurial agency.

By connecting macro-level theoretical developments with micro-level entrepreneurial activities, this methodological approach has enabled the dissertation to make significant contributions to both theoretical understanding and practical guidance regarding disruptive innovation in contemporary contexts.

CHAPTER 4: PAPER 1. RECONCEPTUALISING DISRUPTIVE INNOVATION: FROM DISRUPTING INCUMBENTS TO TRANSFORMING SOCIETY

Abstract

This paper presents an integrative framework that systematises how scholars have collectively reconceptualised disruptive innovation to address contemporary innovation contexts. Through a systematic analysis of literature from 1995 to 2023, we identify four distinct but interrelated expansionary characteristics across which researchers have extended disruptive innovation: value creation (from technology-centric to collective value propositions); market evolution (from niche market entry to market creation and transformation); innovation alignment (from firm-centred to multi-actor, multi-level coordination); and context and impact (from industrial settings with commercial outcomes to diverse contexts with societal transformation). This integrative framework of expansionary characteristics organises critiques concerning definitional clarity, predictive validity, and limited scope into a coherent narrative that acknowledges scholarly efforts to adapt the theory to changing technological, market, and societal contexts. Our analysis reveals how disruptive innovation has transformed from a firm-centric, technology-focused phenomenon to also include an ecosystem-level process with profound implications for market creation and societal transformation. By synthesising this expansionary perspective, we provide a broader theoretical foundation for future scholarly contribution.

Keywords: disruptive innovation; innovation ecosystems; value proposition; market creation; socio-technical transitions; platform innovation; technological disruption; sustainable innovation; business model innovation; market transformation; multi-actor innovation

4.1 Introduction

Despite disruptive innovation's enduring influence, contemporary innovation phenomena increasingly challenge the original conceptualisation, highlighting a significant theoretical gap between established frameworks as originally conceptualised by Bower and Christensen in 1995 and the multifaceted challenges of contemporary innovation landscapes (Antonio & Kanbach, 2023; Kumaraswamy et al., 2018; Si & Chen, 2020). In response, scholars have progressively expanded the concept to accommodate ecosystem dynamics, digital platforms, sustainability imperatives, and societal transformation goals that characterise these contexts (Ansari et al., 2016; Gawer & Cusumano, 2014; Kivimaa & Rogge, 2022; Kuokkanen et al., 2019; Ma et al., 2018; Ozalp et al., 2018). However, this expansion has

occurred without a cohesive theoretical framework, making it difficult to connect these developments to the original theory and obscuring the evolution from a firm-centric, technology-focused phenomenon to also include a more nuanced understanding of disruptive innovation as an ecosystem-level process. This conceptual expansion and lack of theoretical integration has complicated our understanding of what disruptive innovation means today, how it relates to its original conceptualisation, and how it unfolds in different contexts (Si & Chen, 2020; Si et al., 2020). Without a comprehensive framework to organise these expansionary developments, both scholars and practitioners struggle to connect contemporary manifestations of disruptive innovation with the core principles that made the original theory so compelling.

When Bower and Christensen (1995) first introduced “disruptive technology”, they described a process where new entrants develop inferior but adequate solutions for low-end niche markets, gradually improving until they displace established incumbents. By 2003, Christensen and Raynor had expanded this to “disruptive innovation”, encompassing not just technological products but also services and business model innovation. This shift marked an important theoretical evolution from a descriptive framework of technology change to an explanatory theory of innovation and competitive response (Christensen et al., 2018).

Yet as digital platforms, ecosystem innovations, resource-constrained solutions, and sustainability-driven disruptive innovation have emerged, scholars have increasingly found the original conceptualisation insufficient to explain these phenomena (Agarwal et al., 2017; Antonio & Kanbach, 2023; Geels 2004, 2018; Kumaraswamy et al., 2018; Kuokkanen et al., 2019; Palmié et al., 2020; Si & Chen, 2020; Si et al., 2020). While maintaining the core concept of market disruption, researchers have been actively expanding and reconceptualising disruptive innovation to address its explanatory limitations in contemporary settings (Ansari et al., 2016; Beltagui, Rosli, & Candi, 2020; Cozzolino et al., 2018; Kivimaa & Rogge, 2022; Kumaraswamy et al., 2018; Kuokkanen et al., 2019; Ma et al., 2018; Ozalp et al., 2018). Despite this scholarly effort, we lack a systematic understanding of how researchers are collectively reshaping the concept and what this reconceptualisation means for theory and practice.

This gap is particularly significant because recent reviews have largely focused on specific aspects of disruptive innovation rather than capturing the broader reconceptualisation occurring across the literature. For example, while some reviews have examined firm-led perspectives (Si et al., 2020 et al., 2018; Lile et al., 2024; Martínez-Vergara & Valls-Pasola, 2021; Petzold et al., 2019; Si & Chen, 2020; Yu & Hang, 2010) or mapped bibliometric trends (Kawamoto & Spers, 2019; Shang, et al., 2019), they have not systematically analysed how

scholars are actively transforming disruptive innovation from a firm-focused phenomenon to one occurring at ecosystem, platform, and socio-technical transition levels, and in digital, emerging market, and sustainability contexts. A comprehensive review is therefore needed to synthesise these diverse reconceptualisation efforts, identify their common patterns, and develop an integrated framework that can guide future research while maintaining conceptual coherence despite the expanding scope and application of disruptive innovation theory.

Our review addresses this gap by examining how scholars are actively reconceptualising disruptive innovation to explain contemporary phenomena. Our analysis reveals that researchers are collectively expanding the concept across four key characteristics: (1) value creation, evolving from simple performance-price trade-offs to complex, collective value propositions; (2) market evolution, moving from low-end niches to platforms and ecosystem structures; (3) innovation alignment, shifting from firm-centred disruptive innovation to multi-actor, multi-level orchestration; and (4) context and impact, extending beyond industrial settings to digital environments, resource-constrained settings, and socio-technical transitions. Consequently, this scholarly reconceptualisation has transformed disruptive innovation from a concept used primarily to inform innovation strategies to one that also addresses grand challenges, pursues collective ambitions, and drives large-scale societal change.

This paper makes three key contributions. First, we provide a systematic account of how scholars are reconceptualising disruptive innovation from a firm-level competitive phenomenon to a multi-dimensional force for ecosystem and socio-technical transformation. Second, we identify four expansionary characteristics that shed light on the diversity of purpose, scope, form, and outcomes of disruptive innovation in contemporary settings. Third, we establish the foundational patterns that suggest disruptive innovation is not a uniform phenomenon with a singular trajectory but manifests differently depending on context, scope, and objectives.

The paper proceeds as follows. We first describe our methodological approach combining bibliometric analysis with systematic literature review. Our findings present the expansionary framework, detailing the four expansionary characteristics and their evolution from traditional to contemporary conceptualisations. We conclude with theoretical and practical implications, along with an agenda for future research that builds upon this expansionary understanding.

4.2 Method

Our expansionary framework is derived from a bibliometric and systematic analysis of the disruptive innovation literature from 1995 to 2023. Given the fragmented expansion of disruptive innovation theory, this approach allows us to systematically map how scholars are collectively reshaping the concept.

4.2.1 Bibliometric Approach to Literature Search and Selection

We employed a bibliometric approach following established guidelines (Tranfield et al., 2003; Zupic & Čater, 2015) to provide systematic, transparent, and reproducible identification of influential works and research clusters, minimising subjective bias. Using the ARTIREV bibliometric tool (version 1.2.6.8) we searched the SCOPUS database for the term ‘disruptive innovation’ in titles, abstracts, and keywords of peer-reviewed articles in journals in the fields of Economics, Econometrics, Finance, Business, Management, and Accounting - prioritising articles that explicitly engage with Christensen's theoretical construct rather than using "disruptive" descriptively. This search yielded two complementary bibliometric outputs: a co-citation analysis (CCA) and a bibliographic coupling analysis (BCA).

The CCA produced a map of 23 documents representing the intellectual foundations or “schools of thought” in disruptive innovation research. These studies are predominantly qualitative (with three exceptions) and apply firm-level analysis focused on technological innovation, reflecting the more limited scope of early disruptive innovation theory during its formative period (cf. Figure 1).

The BCA generated a map of 94 documents representing current research themes or the “research front” of disruptive innovation (Jarneving, 2005). The BCA literature revealed substantial diversity in contemporary applications, spanning fields from strategy and management to sustainability and socio-technical transformation. This diversity reflects the significant expansion of disruptive innovation theory beyond its original commercial, technological and firm-centric focus, but also highlights the fragmentation that has occurred without an integrative framework (cf. Figure 2).

Figure 1
CCA Map for Period 1995 to 2018

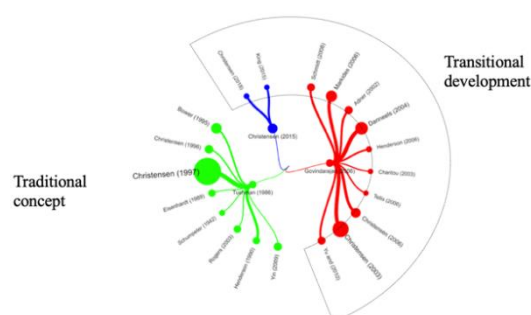
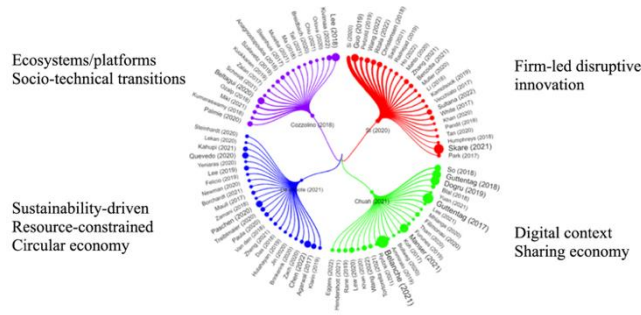


Figure 2
BCA Map for Post-2018 Period

(Source: Author of this thesis. ARTIREV output)

Contemporary expansion



4.2.2 Reconceptualisation Framework Development

Temporal Structure Identification. The CCA and BCA produced distinct clusters by publication dates, citation patterns, and identifiable shifts in theoretical focus across the disruptive innovation literature, revealing three distinct periods in the scholarly treatment of disruptive innovation – capturing the chronological progression of theoretical development: foundational formulations (traditional concept), developmental transitions (transitional development), and current formulations (contemporary expansions).

The first phase – traditional concept (1995-2003) – represents the formative period when Christensen and colleagues established the foundational conceptualisation, characterised by a technology-centric, firm-focused approach to disruptive innovation in established markets. The second phase – transitional development (2004-2018) – represents a critical period of theoretical critique, refinement, and initial expansion, during which scholars identified limitations in the original theory and began extending its application to new contexts. Figure 1, the CCA map from the bibliometric analysis, identifies these formative and transitional phases as foundational schools of thought. The third phase – contemporary expansion (post-2018) (Figure 2, the BCA map from the bibliometric analysis) – represents the most recent phase characterised by how scholars are fundamentally reconceptualising the phenomenon to address complex, multi-actor contexts including digital platforms, ecosystem dynamics, and sustainability imperatives.

Inclusion and Exclusion Criteria. Following ARTIREV's bibliometric identification, we applied systematic inclusion and exclusion criteria. Our inclusion criteria focused on articles with explicit theoretical engagement with disruptive innovation theory, theoretical

contributions, extensions, modifications, or empirical studies with theoretical insights, peer-reviewed articles in quality journals prioritising ABS 3* and 4* rated publications, and English-language publications within the 1995-2023 timeframe. We excluded conference proceedings, working papers, and industry reports, studies using "disruptive" descriptively without theoretical grounding, or articles using the term metaphorically.

Analytical Process. Our systematic content analysis proceeded through three sequential stages following Miles and Huberman (1994). Stage 1 involved initial coding through full-text assessment of all identified articles, coding for theoretical positioning, conceptual innovations, and evolution patterns across the three temporal periods identified by ARTIREV. Stage 2 comprised citation expansion through forward and backward citation analysis of highly influential articles to ensure comprehensive coverage, adding additional articles to our analytical corpus. Stage 3 focused on framework development through iterative pattern coding that revealed four recurring expansionary characteristics across the literature: value creation evolution, market evolution patterns, innovation alignment mechanisms, and context and impact dimensions.

Framework Integration. By mapping how these four characteristics expanded across the three temporal periods, we developed an integrative framework that organises previously fragmented theoretical developments into coherent evolutionary patterns. This approach enables us to provide coherence to what has otherwise been perceived as a fragmented expansion of disruptive innovation.

4.3 Reframing and Reconceptualising Disruptive Innovation: Four Expansionary Characteristics

Our systematic analysis of the disruptive innovation literature reveals a significant conceptual evolution beyond the original Christensen framework, undergoing extensive theoretical expansion along four distinct yet interrelated characteristics: value creation, market evolution, innovation alignment, and context and impact.

Each of these characteristics has transformed dramatically across the three periods identified in our bibliometric analysis – moving from relatively simple, firm-centric conceptions to complex, multi-actor, ecosystem-level manifestations. The evolution reflects a gradual reconceptualisation with overlapping influences, particularly where emergent ideas from the contemporary period began appearing toward the end of the transitional phase.

Table 1

The Four Expansionary Characteristics of Disruptive Innovation. (Source: Author of this thesis)

Characteristic	Traditional Concept (1995-2003)	Transitional Development (2004-2018)	Contemporary Expansion (Post-2018)
Value Creation	Technology performance-price focus “Good enough” simplicity Individual product attributes (Bower & Christensen, 1995; Christensen, 1997)	Consumer preference heterogeneity Business model innovation Customer experience value Early platform dynamics (Danneels, 2004; Christensen & Raynor, 2003; Christensen et al., 2016; Gawer & Cusumano, 2014)	Collective ecosystem value Vision-led value propositions Network/ecosystem value Resource-constrained innovation Sustainability-driven propositions (Kumaraswamy et al., 2018; Kivimaa & Rogge, 2022; Jacobides et al., 2018; Agarwal et al., 2017; Kuokkanen et al., 2019)
Market Evolution	Low-end niche entry New-market footholds Clear industry boundaries Defined customer segments (Bower & Christensen, 1995; Christensen & Raynor, 2003)	Multiple encroachment patterns New market disruption Early multi-sided dynamics (Schmidt & Druhl, 2008; Govindarajan & Kopalle, 2006; Gawer & Cusumano, 2014)	Market creation & transformation Platform & ecosystem markets Network-oriented marketplaces Multi-sided markets Boundary-spanning structures (Geels, 2018; Ozalp et al., 2018; Muller, 2020; Jin & Shin, 2020; Ma et al., 2018)
Innovation Alignment	Firm-centred disruption Binary disruptor-incumbent relationship Clear organisational boundaries Hierarchical decision-making Asymmetric competition (Bower & Christensen, 1995; Christensen, 1997)	Incumbent adaptation capabilities Collaborative innovation models Open innovation approaches Emerging ecosystem perspectives (Cozzolino et al., 2018; Danneels, 2004; Ansari et al., 2016; Adner & Kapoor, 2010)	Multi-actor, multi-level alignment Ecosystem and platform alignment Meta-alignment across systems Collaborative industry response Coopetition dynamics (Kumaraswamy et al., 2018; Adner, 2016; Kivimaa & Rogge, 2022; Anagnostopoulos, 2018; Ansari et al., 2016)
Context & Impact	Industrial settings Developed economies Technology-focused industries Commercial impacts Firm-level outcomes (Bower & Christensen, 1995; Christensen, 1997)	Social change applications Service sector contexts Socio-technical system perspectives (Christensen et al., 2006; Geels, 2002, 2004)	Digital environments Resource-constrained settings Sustainable development contexts Socio-technical transformation System-level societal outcomes (Kamolsook et al., 2019; Agarwal et al., 2017; Kuokkanen et al., 2019; Geels, 2018; Ma et al., 2018)

Note: This table presents key transitions across the four expansionary characteristics of disruptive innovation. Each cell contains representative elements rather than comprehensive descriptions, with selected citations to foundational works in each category. Full explanations of these transitions are provided in the corresponding sections of the text.

What makes this expansion particularly significant is how these characteristics have collectively shifted the theoretical centre of gravity from disruptive innovation as primarily a competitive dynamic between firms to disruptive innovation as a transformative force and outcome reshaping entire industries, ecosystems, and societal systems. Together, these characteristic dimensions form an integrated expansionary framework that explains this profound transformation of disruptive innovation theory. Table 1 presents these expansionary characteristics and their contributing authors, contrasting the temporal development to illustrate this evolutionary trajectory. We explain each expansionary characteristic next.

4.3.1 Value Creation: From Technology-Centricity to Collective Value Propositions

The value creation characteristic concerns how disruptive innovations generate benefits for users, firms, and broader stakeholders. Scholars have increasingly focused on explaining the complex mechanisms through which value is created in today's innovation landscapes, showing a clear evolutionary trajectory across the three periods.

Traditional Concept (1995-2003). The original conceptualisation of disruptive innovation centred primarily on technology performance and price as the key dimensions of value creation (Bower & Christensen, 1995; Christensen 1997). Disruptive technologies emerged as simpler, cheaper alternatives to established offerings, typically underperforming on mainstream attributes while excelling on secondary dimensions such as affordability, convenience, or simplicity. This perspective positioned value creation in largely binary terms: innovations created value by either advancing performance on attributes valued by mainstream customers (sustaining innovations) or by offering “good enough” performance at significantly lower prices to underserved segments (disruptive innovations).

Transitional Development (2004-2018). During the transitional period (2004-2018), scholars expanded disruptive innovation theory beyond its technology-centric origins. Research progressed from the rudimentary lower-price narrative to recognise diverse consumer preferences as essential disruptive drivers (Adner, 2002; Danneels, 2004). This was followed by the identification of business model innovation as a significant alternative mechanism for value creation and capture (Christensen et al., 2018; Cozzolino et al., 2018; Markides, 2006). The understanding that disruptive innovation could occur through non-product value creation

further encouraged a shift from technological performance to customer experience and innovative “jobs-to-be-done” (Christensen et al., 2016). The “jobs-to-be-done” perspective reframed value creation by focusing on the underlying tasks, goals, or problems customers are trying to solve rather than product features or customer demographics, enabling firms to identify disruptive opportunities by understanding the fundamental reasons why customers “hire” products or services.

Scholars also began recognising network-based value in early digital platforms, where connecting users created value beyond standalone product attributes (Adner & Kapoor, 2010; Ansari et al., 2016; Christensen et al., 2018; Gawer & Cusumano, 2014) – foreshadowing later platform ecosystem developments. These transitional developments represented important expansions beyond the technology-performance focus of the original theory, setting the stage for more comprehensive reframing in the contemporary period.

Contemporary Expansion (Post-2018). In the expansionary phase of disruptive innovation research (post-2018), scholars present value creation in a fundamentally transformed way. This evolution reflects five key shifts in scholarly understanding.

First, scholars have emphasised how value now emerges from ecosystem-wide collaborations rather than isolated firm activities, emerging from coordinated efforts across multiple actors (Adner, 2016; Adner & Kapoor, 2010; Jacobides et al., 2018; Kumaraswamy et al., 2018; Ozalp et al., 2018; Palmié et al., 2020). This collective value creation perspective recognises that innovations like smartphone app ecosystems derive their disruptive potential from thousands of developers working in concert rather than through a single firm’s offerings (Kumaraswamy et al., 2018).

Second, rather than focusing solely on commercial objectives, researchers now frame disruptive value creation through alignment with broader societal goals and missions (Geels, 2004, 2018; Kivimaa & Rogge, 2022; Kuokkanen et al., 2019; Ma et al., 2018). These higher-order visions like mobility-as-a-service, or sustainable cities, or collaborative consumption, direct multiple actors and ecosystems to collectively bring about multi-level socio-technical transformation. Additionally, scholarly discourse has integrated sustainability principles into disruptive innovation value creation frameworks (Kahupi, et al., 2021; Kuokkanen et al., 2019; Lekan et al., 2020; Newman, 2020), with resource-constrained propositions and frugal innovations presented as creating distinctive value, particularly in emerging markets (Agarwal et al., 2019).

Third, scholars have moved beyond viewing value as embedded in standalone product attributes toward conceptualising it as emerging from connections and relationships. The

theoretical framing emphasises networks, interconnections, and complementarities as the source of disruptive value (Kamolsook et al., 2019; Manser Payne et al., 2021; Muller, 2020; Ozalp et al., 2018).

Network and ecosystem value propositions demonstrate how platforms derive disruptive potential from connecting previously separate user groups in ways traditional business models cannot (Kumaraswamy et al., 2018; Ozalp et al., 2018). Digital service value propositions and Artificial Intelligence (AI)-enhanced capabilities disrupt service ecosystems by facilitating value co-creation between humans and technology (Belanche et al., 2020; Manser Payne et al., 2021), and similarly, digital sharing economy models like Airbnb and Uber create value by unlocking underutilised assets and facilitating peer-to-peer transactions (Ammirato et al., 2020; Dogru et al., 2019; Guttentag et al., 2018; Koh & King, 2017; Muller, 2020).

Through this progression from technology-centricity to collective value propositions, the scholarly understanding of disruptive innovation has evolved to reflect the increasingly interconnected nature of value creation in today's innovation landscapes.

4.3.2 Market Evolution: From Niche Entry to Market Creation and Transformation

The market evolution characteristic captures how disruptive innovation transforms market structures, customer segments, and competitive dynamics. Scholars have sought to explain increasingly complex market phenomena beyond the original low-end disruption model, revealing a distinct progression across the three periods of theoretical development.

Traditional Concept (1995-2003). The original conceptualisation of disruptive innovation recognised that the phenomenon ultimately transformed market structures, though its primary focus was on the entry and growth trajectory of disruptive firms. Christensen and colleagues described how disruptive innovators followed a pathway beginning with low-end footholds or new-market segments before advancing upmarket to challenge incumbents (Bower & Christensen, 1995; Christensen, 1997).

While market transformation was an inevitable outcome of successful disruptive innovation through incumbent displacement, the original theory placed greater emphasis on the competitive dynamics between disruptors and incumbents rather than on the creation of entirely new market structures. The theory acknowledged that disruptive innovation changed market hierarchies and value propositions but primarily viewed this as occurring within recognisable industry boundaries, with disruptors eventually redefining performance metrics and competitive dimensions as they moved from peripheral to mainstream segments. Though the

theory implicitly recognised market transformation consequences, it had not yet developed explicit frameworks for analysing how disruptive innovation might create entirely new markets or fundamentally reshape market boundaries beyond incumbent displacement.

Transitional Development (2004-2018). During the transitional period, scholars began challenging and expanding the market entry focus of disruptive innovation theory to encompass more complex market dynamics. Researchers developed more sophisticated models of how disruptive innovations diffuse through markets, distinguishing between low-end, high-end, and fringe-market encroachment patterns (Govindarajan & Kopalle, 2006; Schmidt & Druehl, 2008). This expanded understanding recognised that disruptive innovation could follow multiple market trajectories and also distinguished between low-end disruption in existing markets and new-market disruption that creates entirely new customer segments. This distinction represented an important expansion from market entry to market creation perspectives. Researchers also began exploring how platform-based disruptive innovation operates in multi-sided markets with distinct user groups (Gawer & Cusumano, 2014; Ozalp et al., 2018), recognising that platform models disrupt markets through fundamentally different mechanisms than traditional product innovations.

These transitional developments expanded understanding beyond simple market entry to encompass more complex market dynamics, setting the stage for a more dynamic market perspective in the contemporary period.

Contemporary Expansion (Post-2018). In contemporary research, the market evolution characteristic has expanded significantly, shifting from a focus on market entry to market creation and transformation. This evolution reflects four major shifts in scholarly understanding of disruptive market dynamics.

First, markets are increasingly viewed as creatable and transformable systems shaped through collective action rather than simply as spaces for competitive positioning (Geels 2004, 2018; Kivimaa & Kern, 2016; Kivimaa & Rogge, 2022; Ma et al., 2018). Researchers now investigate how coordinated disruptive innovations can fundamentally transform entire domains such as mobility, energy, and food systems. Their studies reveal that rather than merely entering existing markets, disruptive innovators – working through innovation ecosystems and platforms – actively create and reshape market structures themselves. Adner (2016), Beltagui et al. (2020), and Jacobides et al. (2018) demonstrate how disruptors orchestrate multiple actors to establish entirely new market systems rather than simply competing within established boundaries.

Second, building directly on this market creation perspective, scholars recognise that disruptive innovations increasingly transcend traditional industry categories to create entirely new market spaces (Geels, 2004, 2018; Jin & Shin, 2020; Kivimaa & Rogge, 2022; Ma et al., 2018; Ozalp et al., 2018). Digital health platforms, for instance, span healthcare, technology, insurance, and consumer wellness domains simultaneously. Similarly, sustainable mobility innovations like mobility-as-a-service platforms fundamentally reshape transportation by integrating previously separate sectors including public transit, automotive, energy, urban planning, and digital services into cohesive ecosystems that defy traditional industry categorisation (Ma et al., 2018; Kivimaa & Rogge, 2022). This boundary-spanning creates complex market structures that challenge established industry definitions and regulatory frameworks (Anagnostopoulos, 2018; Kivimaa & Rogge, 2022; Ma et al., 2018).

Third, scholars have fundamentally reconceptualised market structures through platform and network-oriented marketplace theories (Jacobides et al., 2018; Kamolsook et al., 2019; Muller, 2020). These emerging market forms connect diverse participant groups – suppliers, customers, complementors, and peers – through novel interaction mechanisms that transcend traditional buyer-seller transactions. Platform markets exhibit distinctive dynamics – including strong network effects, winner-takes-most tendencies, and multi-level ecosystem competition – that were largely absent from traditional market structures (Ansari et al., 2016; Beltagui et al., 2020; Ozalp et al., 2018). Unlike conventional markets where value primarily derives from product/service exchange, these network-oriented marketplaces generate value through the connections themselves (Kamolsook et al., 2019; Muller, 2020). This shift from transaction-centric to connection-centric market structures requires complex orchestration of multiple stakeholder groups with divergent ambitions and interdependent value propositions, fundamentally changing how market disruption unfolds (Ansari et al., 2016; Kumaraswamy et al., 2018; Herold et al., 2021; Muller, 2020; Ozalp et al., 2018).

This expanded understanding of the market evolution characteristic suggests that disruptive innovation increasingly involves creating and transforming markets rather than simply entering existing ones. Through this progression from niche entry to market creation and transformation, the scholarly understanding of disruptive innovation has evolved to reflect the increasingly fluid, networked, and boundary-spanning nature of contemporary markets.

More significantly, the concept of “market” has evolved beyond traditional consumption spaces to become a site of collaborative value creation. Contemporary markets blur the line between producers and consumers, featuring participants who co-create, co-consume, and co-distribute value. This shift from transactional to collaborative structures

challenges the producer–consumer dichotomy central to traditional disruptive innovation theory. In these new markets, value arises from dynamic networks of interaction rather than one-way exchanges – marking a fundamental reconceptualisation of market dynamics with significant implications for understanding disruptive innovation.

4.3.3 Innovation Alignment: From Firm-Centred to Multi-Actor, Multi-Level Orchestration

The innovation alignment characteristic captures how disruptive innovation processes are organised, coordinated, and governed across stakeholders. This characteristic has undergone a profound transformation as scholars have reconceptualised disruptive innovation from a firm-centric competitive phenomenon to a collaborative orchestration process.

Traditional Concept (1995-2003). The original conceptualisation of disruptive innovation focused primarily on firm-level innovation processes and binary disruptor-incumbent relationships. Innovation was controlled within clear organisational boundaries, with hierarchical decision-making processes determining innovation trajectories. Competition was characterised by asymmetric dynamics between established incumbents and agile challengers, with each playing relatively fixed roles in the disruptive innovation drama (Christensen, 1997). This firm-centric view positioned disruptive innovation as primarily a strategic challenge for individual organisations rather than a collective process requiring coordination across multiple actors.

Transitional Development (2004-2018). During the transitional period, scholars began challenging and expanding the firm-centric approach to innovation alignment in disruptive contexts. Researchers increasingly questioned the inevitability of incumbent displacement, identifying strategies through which established firms could respond effectively to disruptive innovation (Cozzolino et al., 2018; Danneels, 2004; Henderson, 2006; Markides, 2006; Tellis, 2006; Yu & Hang, 2010). This work expanded understanding of how incumbents could realign their innovation processes to address disruptive threats.

Studies began exploring how collaboration between established firms and potential disruptors could drive disruptive innovation (Anagnostopoulos, 2018; Ansari et al., 2016; Cozzolino et al., 2018; Lee & Shin, 2018; Parry & Kawakami, 2017). This research challenged the strictly competitive framing of the original theory. Building on this coevolutionary and collaborative perspective, scholars identified how disruptive innovation increasingly leveraged external knowledge sources, indirect network externalities, and open innovation models (Cozzolino et al., 2018; Parry & Kawakami, 2017). This expansion recognised the growing importance of boundary-spanning innovation processes.

Research began conceptualising alignment challenges at the ecosystem level rather than just the firm level (Ansari et al., 2016; Adner, 2006, 2012, 2016; Adner & Kapoor, 2010; Kumaraswamy et al., 2018; Ozalp et al., 2018). This work laid important foundations for later expansions in multi-actor alignment.

Contemporary Expansion (Post-2018). The innovation alignment characteristic has expanded dramatically through contemporary research, shifting from firm-centred disruptive innovation to multi-actor, multi-level orchestration. This evolution reflects five significant advancements in scholarly understanding of disruptive innovation alignment processes.

First, rather than following a simple pattern of incumbent displacement, disruptive innovation increasingly triggers collaborative responses where established firms partner with disruptors to form innovation ecosystems to address emerging threats (Anagnostopoulos, 2018; Cozzolino et al., 2018; Lee & Shin, 2018). This collaborative industry response perspective challenges the assumption that incumbents are inevitably disrupted, highlighting instead how they can participate in and sometimes lead disruptive innovation through strategic collaboration.

Second, innovation increasingly requires orchestrating complex networks of interdependent actors around shared value propositions (Adner, 2016; Jacobides et al., 2018; Palmié et al., 2020). Researchers explore how ecosystem leaders and platform owners must coordinate the activities of diverse complementors to create coherent offerings that can disrupt established markets. This ecosystem and platform alignment involves managing complex interdependencies and complementarities that transcend traditional organisational boundaries.

Third, innovation alignment increasingly involves simultaneous cooperation and competition (coopetition) between participants rather than simple competitive rivalries (Ansari et al., 2016; Kumaraswamy et al., 2018). Researchers explore how firms may compete while cooperating with others (coopetition). This is because even as collaborative actors jointly create value, they have divergent motivations and interests. This coopetition dynamic adds another layer of complexity to understanding alignment in disruptive innovation contexts.

Fourth, contemporary disruptive innovation emerges from coordinated action across multiple actors and entire ecosystems, operating at different levels of analysis with progressively complex alignment requirements (Geels 2004, 2018; Kumaraswamy et al., 2018; Kivimaa & Rogge, 2022; Ma et al., 2018; Palmié et al., 2020). Rather than being driven by a single firm, transformative disruptive innovation now requires alignment between startups, incumbents, policymakers, consumers, and other stakeholders – a fundamental shift from the binary disruptor-incumbent relationship that dominated early conceptualisations. This multi-

actor alignment progresses through increasingly complex levels of coordination: from interorganisational alignment between partners, to ecosystem-level alignment among complementors, and ultimately to “meta-alignment” that coordinates multiple ecosystems around higher-order societal visions (Geels, 2004, 2018; Kivimaa & Rogge, 2022; Ma et al., 2018).

This most advanced form of meta-alignment transcends both organisational and ecosystem boundaries to address complex societal challenges like sustainable mobility, clean energy transitions, or smart cities. These challenges require unprecedented coordination across multiple innovation ecosystems, each with their own internal dynamics, governance structures, and value creation logics (Geels, 2004, 2018; Jutting, 2022; Lazarevic et al., 2019; Russell & Smorodinskaya, 2018). For example, mobility-as-a-service innovations require alignment across transportation, energy, digital platform, urban planning, and regulatory ecosystems – a level of coordination complexity that was entirely absent from early disruptive innovation frameworks but has become central to contemporary manifestations of disruptive innovation aimed at systemic transformation.

This expanded understanding of the innovation alignment characteristic suggests that successful disruptive innovation increasingly depends on orchestration capabilities rather than merely technological innovation or competitive positioning. The ability to align diverse actors around shared goals has become a critical success factor, fundamentally changing how we conceptualise the governance of disruptive innovation in increasingly collaborative, networked innovation landscapes.

4.3.4 Context and Impact: From Industrial Settings to Diverse Contexts and Socio-Technical transitions

The context and impact characteristic captures how disruptive innovation manifests across different settings and its varied outcomes. This characteristic reflects the expansion of disruptive innovation theory from industrial contexts to diverse socio-technical environments, revealing how contextual factors shape both disruptive processes and consequences. This evolution shows how scholars have reconceptualised disruptive innovation from a localised competitive phenomenon with commercial implications to a transformative force capable of reshaping entire societal systems.

Traditional Concept (1995-2003). The original conceptualisation of disruptive innovation focused almost exclusively on industrial settings in developed economies, particularly technology-focused industries like computing, electronics, and machinery. The theory was primarily concerned with commercial impacts and firm-level outcomes, measuring

success through metrics like market share, profitability, and competitive displacement. This narrow contextual focus limited the theory's applicability to other settings and obscured the potential broader impacts of disruptive innovation beyond commercial characteristics.

Transitional Development (2004-2018). During the transitional period, scholars extended the concept beyond manufacturing to disruptive innovation for social change (Christensen et al., 2006), and research began to link disruptive innovation to broader socio-technical transitions, where technological disruptive innovation often resulted in multi-level change in social practices, regulations, and infrastructures (Geels, 2002, 2004), representing an important expansion toward system-level impacts.

Contemporary expansion (post-2018). The context and impact characteristic has expanded significantly in contemporary research, embracing diverse innovation contexts and broader societal outcomes. This evolution reflects five key contextual expansions that have fundamentally transformed how scholars understand disruptive innovation.

First, disruptive innovation increasingly emerges in digital contexts where traditional industry boundaries blur and network effects create distinctive dynamics (Kamolsook et al., 2019; Kumaraswamy et al., 2018; Manser Payne et al., 2021; Muller, 2020). These digital environments and their infrastructures (platforms) create unique conditions for disruptive innovation, including rapid scaling, global reach, and data-driven innovation that were largely absent from traditional industrial contexts. Digital platforms like Airbnb, Uber, and fintech applications demonstrate how disruptive innovation manifests differently in networked environments compared to industrial settings, with value creation increasingly derived from connections between users rather than product performance improvements (Ammirato et al., 2020; Guttentag et al., 2018; Kamolsook et al., 2019; Koh & King, 2017; Muller, 2020).

Second, emerging markets and resource-limited contexts have become important sites for distinctive forms of disruptive innovation, including reverse innovation that flows from lower-income to higher-income economies, emphasising affordability, simplicity, and accessibility (Agarwal et al., 2017; Klarin, 2019). These settings generate innovations that challenge conventional assumptions about technological progression, as seen with mobile money services in Africa like M-Pesa, which enabled millions of unbanked people to access financial services by leapfrogging traditional banking infrastructure entirely (Museba et al., 2021). Studies in developing economies reveal context-specific patterns that differ from the original conceptualisation of disruptive innovation - for example, in China, disruptors focus on value propositions rather than products, scale more rapidly, target mass markets directly, and

often leverage government support to reconfigure entire industrial networks (Si et al., 2020; Mahto et al., 2020; Williamson et al., 2020).

Third, disruptive innovation increasingly addresses sustainability challenges and broader social transformations, extending beyond commercial markets and firm-level outcomes to operate at system-wide scale. In these socio-technical transformation contexts, disruptive innovations like renewable energy solutions, circular economy business models, and sustainable mobility systems are driven by sustainability imperatives rather than solely commercial objectives (Geels, 2004, 2018; Kivimaa & Rogge, 2022; Kuokkanen et al., 2019; Newman, 2020; Ma et al., 2018). This expanded impact encompasses coordinated transformation of policies, institutions, infrastructures, market structures, and social practices, requiring system-wide stakeholder participation and alignment. Disruptive innovation now operates at an unprecedented scale and scope, transforming entire systems rather than simply displacing individual firms. This represents a fundamental expansion from the firm-centric outcomes that dominated early disruptive innovation theory to a more holistic understanding of disruptive innovation as a driver of societal transformation, where commercial success and social impact are increasingly intertwined rather than separate outcomes.

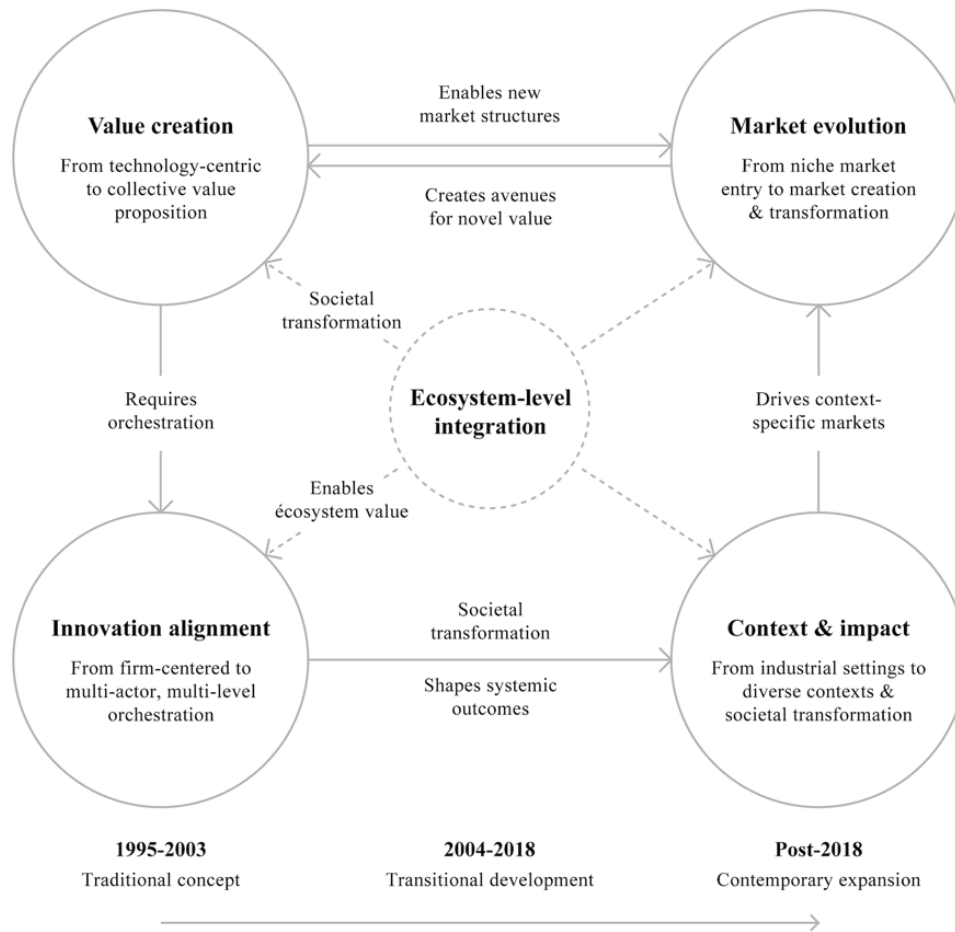
This expanded understanding of the context and impact characteristic suggests that disruptive innovation manifests differently across varied contexts and can drive outcomes far beyond the competitive displacement envisioned in the original theory. Through this progression from industrial settings to diverse contexts with socio-technical transformation potential, the scholarly understanding of disruptive innovation has evolved to reflect the varied manifestations and broader implications of the phenomenon across different settings. By recognising these contextual variations and broader impacts, scholars have developed more nuanced approaches to fostering and managing disruptive innovation across diverse settings.

4.3.5 Integration Across Characteristics

Our systematic analysis reveals that the four expansionary characteristics are not merely parallel evolutionary trajectories but form a deeply interconnected and recursive system. The coevolutionary patterns we identify demonstrate that these characteristics function as a complex adaptive system where changes in one characteristic trigger transformations in others (cf. Figure 3).

Figure 3

The Integration Across the Expansionary Characteristics. (Source: Author of this thesis)



Value Creation and Market Evolution: A Recursive Coevolutionary Relationship.

Our analysis demonstrates a bidirectional causal relationship between value creation and market evolution. Contemporary value creation mechanisms increasingly depend on and simultaneously shape market structures that enable collective, network-based approaches (Adner, 2006, 2016; Adner & Kapoor, 2010; Jacobides et al., 2018; Kumaraswamy et al., 2018; Ozalp et al., 2018). This relationship operates through specific mechanisms including network effects, complementarity dynamics, and the emergence of new economic interactions that transcend traditional market boundaries.

For example, our analysis of innovation ecosystem and platform literature reveals how value co-creation mechanisms (a value creation innovation) necessitate multi-sided market structures (market evolution), which in turn enable new forms of value creation impossible in traditional markets (Eaton et al., 2015; Ghazawneh & Henfridsson, 2013; Jacobides et al., 2018; Karhu et al., 2018; Kamolsook et al., 2019; Kumaraswamy et al., 2018; Muller, 2020; Palmié et al., 2020). This recursive relationship creates path dependencies and self-reinforcing

cycles that explain why disruptive innovations often accelerate in impact over time – a phenomenon not adequately explained by linear models.

Innovation Alignment and Value Creation: Structuration Dynamics. The relationship between innovation alignment and value creation represents a classic structuration dynamic where governance structures both shape and are shaped by value creation approaches. As value creation has expanded beyond individual firms to encompass collective approaches, innovation alignment has necessarily evolved from firm-centred models to multi-actor orchestration (Adner, 2016; Dattée et al., 2018; Jacobides et al., 2018; Kivimaa & Rogge, 2022; Kumaraswamy et al., 2018; Ma et al., 2018; Palmié et al., 2020; Thomas et al., 2022).

Our analysis of ecosystem literature demonstrates how specific coordination mechanisms have co-evolved with value creation approaches, revealing that misalignment between the complexity of value creation and corresponding coordination capacity creates selection pressures that drive further evolution. The evolution of Apple’s iOS ecosystem vividly illustrates this process. Initially, Apple tightly controlled iOS with centralised governance, aligned with its hardware-software integration focus. However, as third-party developers expanded the ecosystem with diverse apps and services, centralised coordination became inadequate. Apple responded with developer toolkits, App Store reviews, and revenue-sharing models to manage complex value creation. This evolution highlights how governance must adapt to accommodate increasingly complex ecosystems, as seen in failures like Nokia and BlackBerry, which failed to evolve, leading to ecosystem collapse. This insight explains why traditional alignment mechanisms often fail with advanced collective value creation approaches.

Context and Impact: Multi-Level Configurational Influences. Our analysis reveals that context and impact function as configurational forces that shape the manifestation of the other three characteristics through complex multi-level selection pressures. The expansion of disruptive innovation into diverse contexts fundamentally reconfigures how the other characteristics manifest (Agarwal et al., 2017; Klarin, 2019; Mahto et al., 2020; Si et al., 2020; Williamson et al., 2020).

For example, our systematic comparison of digital platform contexts versus sustainability contexts demonstrates how contextual factors create distinctive configurations across value creation, market evolution, and innovation alignment. Consider the stark contrast between ride-sharing platforms (Uber, Lyft) and renewable energy transitions. In the ride-sharing context, value creation emphasises immediate convenience and price advantages, market evolution occurs rapidly through aggressive scaling driven by venture capital, and

innovation alignment relies primarily on platform orchestration with limited regulatory coordination. In contrast, renewable energy transitions create value through long-term sustainability benefits, evolve markets through gradual institutional transformation requiring policy support, and demand complex multi-level alignment across government, industry, and civil society actors.

These configurations are not random variations but theoretically coherent responses to the selection pressures operating in different contexts. Digital platform environments reward speed and scale, creating selection pressures for rapid market penetration and winner-takes-most dynamics. Sustainability contexts, conversely, involve long-term societal transitions where selection operates through institutional legitimacy and system-wide compatibility rather than just market share. This configurational perspective explains why disruptive innovation manifests distinctively in different settings while maintaining conceptual integrity – a theoretical puzzle that atomistic approaches struggle to resolve.

Vertical Integration: Cross-Scale Dynamic Processes. Across all four characteristics, we observe a systematic shift from firm-level to ecosystem-level conceptualisations. This vertical expansion represents a fundamental reconceptualisation that integrates micro, meso, and macro levels of analysis. Our analysis reveals specific mechanisms through which firm-level processes aggregate to create meso-level structures, which in turn shape macro-level systems (Geels, 2004, 2018).

This cross-scale integration explains why disruptive innovation increasingly manifests as system-level transformation rather than isolated competitive displacement. The mechanisms connecting these levels include institutional isomorphism, network externalities, and cascading effects where changes in one characteristic at one level trigger adjustments across other characteristics at multiple levels.

The electric vehicle (EV) transition illustrates this cross-scale integration well. At the firm level, Tesla's innovation in battery technology and vehicle design (value creation characteristic) created cascading effects at the ecosystem level, where charging infrastructure providers, electricity utilities, and software developers established new alignment mechanisms through partnerships and standards (innovation alignment characteristic). These ecosystem developments subsequently triggered macro-level institutional changes as governments introduced new regulations, subsidies, and emissions targets that reshaped entire mobility and energy markets (market evolution characteristic).

Importantly, these changes were not isolated at their respective levels but created recursive feedback loops across scales. Macro-level policy changes like zero-emission vehicle

mandates intensified selection pressures on firm-level innovation activities, accelerating EV development among traditional automakers through institutional isomorphism. Meanwhile, growing EV adoption generated network externalities that reinforced ecosystem-level transformations in charging infrastructure, which further enhanced the value proposition of EVs at the firm level. This example demonstrates how disruptive innovation in contemporary contexts cascades across micro-, meso-, and macro-levels, creating system-wide transformation through interlinked mechanisms rather than simply displacing individual competitors as in traditional disruptive innovation models.

Conclusion: Toward a Complex Adaptive Systems View of Disruptive Innovation.

The interrelationships we identify are not merely associative but represent causal mechanisms that drive the evolution of disruptive innovation as a complex adaptive system. This integrative perspective reveals how disruptive innovation functions as a transformative process that fundamentally redefines value while simultaneously reconfiguring value creation processes, organisational structures, market dynamics, innovation system boundaries, and socio-technical systems.

This theoretical advancement moves beyond simplistic models of disruptive innovation to capture the complex, multi-level, and recursive nature of contemporary disruptive phenomena. Rather than replacing earlier understandings, this complex adaptive systems perspective enriches and extends the concept to address increasingly complex innovation landscapes while preserving its core insights about transformative competitive dynamics.

Our analysis reveals that these four expansionary characteristics are interconnected and mutually reinforcing. When viewed as an integrated system, they illuminate how disruptive innovation has evolved from a relatively narrow competitive phenomenon to a complex, multifaceted force for transformation. The rich interplay between these characteristics demonstrates how changes in one area catalyse and amplify developments in others, creating synergistic effects that drive the evolution of disruptive innovation theory and practice.

4.4. Discussion

4.4.1 Toward an Integrative Understanding of Disruptive Innovation as Concept

The four expansionary characteristics identified in our analysis collectively demonstrate that disruptive innovation has evolved from a competitive mechanism between individual firms to a transformative force reshaping entire socio-technical systems. This represents a profound conceptual leap that goes beyond incremental extensions of Christensen's original theory.

The resultant expansionary framework of our analysis provides three critical new insights. First, it establishes that contemporary disruptive innovation operates simultaneously across multiple levels – from products to ecosystems to societal systems – rather than being confined to firm-level competition. Second, it demonstrates that disruptive innovation processes increasingly require orchestrated collective action rather than emerging from independent competitive strategies. Third, it reveals that the purpose of disruptive innovation has expanded beyond commercial advantage to encompass societal transformation, particularly in sustainability contexts.

The expansionary framework also explains why research focusing exclusively on firm-level dynamics increasingly fails to capture the full complexity of disruptive innovation, particularly in platform, ecosystem, and sustainability contexts. By systematically mapping the expansion across value creation, market evolution, innovation alignment, and context and impact characteristic dimensions, we provide a cohesive explanation for what previously appeared to be fragmented or contradictory theoretical extensions.

Perhaps most significantly, this expansionary perspective suggests that disruptive innovation theory remains highly relevant for understanding contemporary innovation challenges but requires a broader conceptual foundation than its original formulation. Rather than discarding the core insights about how disruptive innovation transforms markets, our framework demonstrates how these principles have been adapted and extended to explain increasingly complex innovation phenomena across diverse contexts.

4.4.2 Theoretical Contributions

Our expansionary framework makes four significant contributions to understanding the concept of disruptive innovation.

First, it resolves theoretical fragmentation by integrating seemingly disparate conceptual understandings into a coherent evolutionary narrative. Rather than treating various critiques and extensions as competing perspectives, we show how they represent necessary expansions along four interconnected characteristics that collectively respond to changing innovation contexts. This integration preserves valuable insights from traditional disruptive innovation theory while addressing its limitations for contemporary phenomena.

Second, we advance theoretical understanding of concept evolution by demonstrating how disruptive innovation theory has maintained relevance through systematic expansion. Our framework reveals the specific pathways through which the concept has evolved from a simple competitive dynamic between firms to encompass complex multi-actor processes capable of transforming entire socio-technical systems. This evolutionary perspective challenges the

notion that concepts become obsolete when contexts change, instead showing how they can adapt while maintaining core theoretical insights.

Third, we establish characteristic interdependence as a critical theoretical mechanism in innovation theory. While early conceptualisations treated value creation, market evolution, innovation alignment, and context and impact as discrete elements, our analysis reveals their profound systemic interdependence. Changes in one characteristic cascade through and transform others, creating emergent properties impossible to understand through isolated characteristic analysis. This inter-characteristic perspective advances theoretical understanding of disruptive innovation as a complex, systemic phenomenon rather than a collection of independent variables.

Fourth, we provide a theoretical foundation for contextual variation in disruptive innovation manifestations. By identifying systematic patterns of expansion across each characteristic, we establish a theoretical basis for explaining why disruptive innovation manifests differently across various contexts while maintaining conceptual integrity. This contribution addresses a significant theoretical challenge in applying disruptive innovation theory to increasingly diverse settings without losing explanatory coherence.

4.4.3 Practical Implications

For practitioners, our expansionary framework offers several valuable insights.

First, it highlights the importance of ecosystem thinking in contemporary disruptive innovation strategies. Successful disruptive innovation increasingly depends not only on developing novel technologies or business models but also on orchestrating complementary innovations, aligning diverse stakeholders, and cultivating vibrant ecosystems. The framework suggests that managers should expand their strategic horizon beyond firm boundaries to consider ecosystem-level dynamics and opportunities for collaborative value creation.

Second, our analysis reveals the growing importance of vision-driven disruptive innovation aimed at addressing societal challenges. As disruptive innovation increasingly intersects with sustainability and socio-technical transition domains, organisations have new opportunities to create value while contributing to broader societal transformation. This suggests that practitioners should consider not only commercial opportunities but also societal impact when developing potentially disruptive innovations.

Third, our framework highlights the expansion from technology-centric to value proposition-led disruptive innovation. Rather than focusing primarily on product performance and price attributes, successful disruptive innovators increasingly orchestrate holistic value propositions that combine functional, emotional, and social elements through coordinated

ecosystem activities. This shift suggests that practitioners should adopt more sophisticated approaches to value creation that transcend traditional product development paradigms.

Fourth, our expansionary framework suggests that practitioners need different approaches depending on the context in which they are pursuing disruptive innovation. In digital environments, network effects and platform dynamics become critical considerations. In resource-constrained settings, frugality and accessibility take centre stage. And in sustainable development contexts, regenerative value creation and system-level transformation become paramount. By recognising these contextual variations, organisations can better tailor their disruptive strategies to specific innovation landscapes.

4.4.4 Limitations and Future Research Directions

While our expansionary framework provides a valuable integrative perspective of disruptive innovation research, several limitations suggest promising avenues for future research.

First, our analysis is primarily based on a bibliometric review of academic literature, which may not fully capture practitioner perspectives and emerging phenomena that have not yet been extensively theorised. Future research could complement our framework through in-depth case studies of contemporary disruptive innovations across various contexts.

Second, while we identify important expansionary patterns in how scholars are reconceptualising disruptive innovation, the precise mechanisms driving these processes remain underexplored. Future research could investigate the factors that accelerate or inhibit conceptual expansion along each characteristic, potentially revealing important contingencies and boundary conditions.

Third, our framework identifies the increasing interconnectedness of the four characteristics but does not fully specify how these characteristics interact in different contexts. Future research could develop more detailed theoretical models of these inter-characteristic relationships, potentially identifying distinctive patterns that characterise different types of disruptive innovation and their varied manifestations across industrial, digital, resource-constrained, sustainability, and socio-technical transitions settings.

Fourth, as disruptive innovation increasingly intersects with the sustainability and socio-technical transitions domains, important questions arise regarding metrics, evaluation frameworks, and governance mechanisms. Future research could develop more sophisticated approaches to assessing the societal impact of disruptive innovations and designing governance arrangements that balance innovation, inclusion, entrepreneurship, and responsibility.

4.5 Conclusion

This paper has addressed the fragmented expansion of disruptive innovation theory by developing an integrative framework across four expansionary characteristics: value creation, market evolution, innovation alignment, and context and impact. Our analysis demonstrates how scholars have collectively transformed the concept from a relatively simple, firm-centric focus on technological performance-price trade-offs to a complex, multifaceted phenomenon with ecosystem-level and societal implications.

By mapping these expansionary characteristics and their interconnections, we have provided a more coherent understanding of how disruptive innovation manifests in contemporary contexts while maintaining conceptual connection to its theoretical foundations. This integration helps resolve the tension between preserving valuable insights from the original theory and addressing its limitations in explaining increasingly complex innovation phenomena.

Our framework suggests that disruptive innovation is not a uniform phenomenon with a singular trajectory but manifests differently depending on specific combinations of value creation mechanisms, market structures, alignment processes, and contextual factors. As innovation landscapes continue to evolve, our expansionary characteristics framework provides a foundation for understanding these diverse manifestations while maintaining the conceptual coherence necessary for meaningful theoretical advancement and practical application.

CHAPTER 5: PAPER 2. CONFIGURATIONS OF DISRUPTIVE INNOVATION: ENTERPRISE-LED, INNOVATION ECOSYSTEM, AND SOCIO-TECHNICAL SYSTEM

Abstract

Despite its significant influence on innovation research and practice, disruptive innovation has faced persistent critiques regarding its conceptual clarity, theoretical assumptions, and explanatory power. These challenges have intensified as contemporary innovation landscapes have evolved in ways that the original theory struggles to explain. This paper addresses these limitations by introducing a configurational approach to disruptive innovation. Through theoretical analysis and synthesis, we identify three distinct configurations – enterprise-led, innovation ecosystem, and socio-technical system – each characterised by unique patterns across five differentiating dimensions: structure, value creation, competition, scale and scope, and capabilities. The enterprise-led configuration most closely resembles Christensen's original concept but recognises more complex coevolutionary processes. The innovation ecosystem configuration captures how disruptive innovation emerges from networks of interdependent actors collectively creating value through shared value propositions. The socio-technical system configuration extends the concept to encompass disruptive innovation processes that transform entire socio-technical systems around grand societal challenges and higher-order ambitions. By reconceptualising disruptive innovation through this configurational lens, we move beyond the limitations of the original concept and theory toward a more inclusive understanding that better reflects the diverse manifestations of disruptive innovation in contemporary contexts. This configurational framework not only advances conceptual and theoretical development but also provides practical guidance for navigating varied forms of disruptive innovation across different organisational, institutional, and societal settings.

Keywords: disruptive innovation, innovation ecosystems, platform innovation, socio-technical transitions, configurational theory

5.1 Introduction

Since Bower and Christensen (1995) introduced the concept of 'disruptive technologies,' and Christensen and Raynor (2003) later expanded it to 'disruptive innovation,' this theoretical framework has significantly influenced how researchers and practitioners understand competitive dynamics and market evolution. The disruptive innovation narrative – depicting how new entrants with initially inferior but more accessible offerings can eventually

displace established incumbents – has become a prominent lens for analysing changes in market structures, customer relationships, and competitive positioning.

However, the contemporary innovation landscape has evolved dramatically, challenging the boundaries of the original theory (Antonio & Kanbach, 2023; Kumaraswamy et al., 2018; Si et al., 2020). Digital technologies have transformed business landscapes giving rise to complex innovation ecosystems, platform-based models, and network effects (Adner & Kapoor, 2010; Adner, 2012; Adner, 2016; Ansari et al., 2016; Gawer & Cusumano, 2014; Jacobides et al., 2018), where disruptive innovation emerges from coordinated activity across multiple actors rather than isolated firm actions (Kumaraswamy et al., 2018; Palmié et al., 2020). Simultaneously, grand societal challenges have expanded the scope of disruptive innovation beyond commercial markets to encompass transformative processes that reshape entire socio-technical systems through coordinated action across public, private, and social sectors (Kivimaa & Rogge, 2022; Kuokkanen et al., 2019; Ma et al., 2018; Geels, 2002, 2004, 2018). These developments have created contexts that transcend the explanatory power of the original theory.

The result is a fragmented research landscape where scholars examine various forms of disruptive innovation using common terminology but with fundamentally different understandings of the phenomenon (Si & Chen, 2020; Si et al., 2020). Despite the theory's evolution from a descriptive framework of technology change to an explanatory and causal theory of innovation and competitive response (Christensen et al., 2018), what remains missing is a coherent theoretical framework that can accommodate diverse manifestations of disruptive innovation while maintaining conceptual integrity.

This paper addresses this gap by introducing a configurational approach to disruptive innovation (Furnari et al., 2021; Miller, 1986; Meyer et al., 1993). Rather than treating the phenomenon as uniform with a singular trajectory, we reconceptualise it as manifesting through three distinct configurations: enterprise-led, innovation ecosystem, and socio-technical system. Each configuration represents a coherent constellation of dimensional patterns that together constitute a distinctive expression of disruptive innovation, characterised by unique expressions across five key dimensions: structure, value creation, competition, scale and scope, and capabilities.

This configurational framework offers several important contributions. First, it resolves persistent definitional ambiguities by acknowledging that disruptive innovation manifests through fundamentally different patterns requiring distinct theoretical explanations. Second, it extends the theory's explanatory power to contemporary phenomena in digital, platform, and

emerging market contexts. Third, it bridges previously separate theoretical domains by integrating insights from ecosystem, platform, socio-technical transitions, and policy literature. Finally, it provides clearer strategic guidance for practitioners by identifying the distinctive challenges, capabilities, and governance mechanisms associated with each configuration.

In the following sections, we first outline our conceptual approach, identifying five key dimensions that define how disruptive innovation manifests across different contexts. We then present each configuration in detail, examining its distinctive expression across the five dimensions, illustrating with exemplar cases, and identifying transition indicators. We conclude by discussing theoretical contributions, managerial implications, limitations, and directions for future research.

5.2 Toward a Configurational Approach

Disruptive innovation theory, rooted in Schumpeter's (1942) concept of creative destruction, was initially introduced by Bower and Christensen (1995) as 'disruptive technology' – describing how new entrants target low-end markets with initially inferior solutions that eventually improve, enter mainstream markets and displace incumbents. By 2003, Christensen and Raynor broadened the concept to 'disruptive innovation', now including technological, service, and business model innovations.

Despite its influence and widespread adoption, the theory has faced persistent criticism regarding its conceptual clarity, predictive validity, and explanatory power (Adner, 2002; Danneels, 2004; Govindarajan & Kopalle, 2006; Henderson, 2006; King & Baatartogtokh, 2015; Markides, 2006; Tellis, 2006; Yu & Hang, 2010). As Antonio and Kanbach (2023) observe, the theory has particularly struggled to incorporate contemporary developments that have transformed how disruptive innovation unfolds – including innovation ecosystems (Adner & Kapoor, 2010; Adner, 2012; Adner, 2016; Ansari et al., 2016; Beltagui et al., 2020; Kumaraswamy et al., 2018; Ozalp et al., 2018; Palmié et al., 2020), digital technologies, platform models, and network effects (Gawer & Cusumano, 2014; Jacobides et al., 2018; Kamolsook et al., 2019; Muller, 2020), and disruptive innovation's role in driving systemic societal transformation (Kivimaa & Rogge, 2022; Kuokkanen et al., 2019; Ma et al., 2018; Geels, 2002, 2004, 2018).

While scholars have refined and extended disruptive innovation theory to address these limitations, they have not converged on a unified understanding of the phenomenon, leading to significant theoretical fragmentation (Lile et al., 2024; Si & Chen, 2020; Si et al., 2020). As King and Baatartogtokh (2015, p. 85) note: "The threats faced by the companies in our sample were deeply challenging, and they cannot be understood from a single viewpoint or solved by

a single prescription.” Despite Christensen et al.’s (2018) assertion that disruptive innovation theory has evolved from a descriptive framework of technology change to an explanatory and causal theory of innovation and competitive response, what remains missing is a coherent theoretical framework that can accommodate its diverse expressions while maintaining conceptual integrity.

To advance a coherent theoretical framework we propose a configurational approach that recognises that disruptive innovation manifests, not uniformly as single set of characteristics, but rather in different patterns depending on context, scope, and objectives. This configurational perspective builds upon established traditions in organisational and management theory that view phenomena as coherent patterns of interrelated attributes rather than isolated variables (Fiss, 2007; Furnari et al., 2021; Miller, 1986; Meyer et al., 1993). Configurational approaches have proven particularly valuable for understanding complex organisational phenomena that resist simple linear explanations.

Miller (1996) clarifies that configurations differ from other classification approaches. Typologies are conceptually derived schemes that may lack empirical support, whereas taxonomies are empirically derived groupings that may lack theoretical coherence. Configurations, by contrast, are both theoretically grounded and empirically observable, characterised by internal coherence, equifinality, and systemic interaction. Internal coherence refers to the systematic reinforcement and mutual causality among elements within a configuration, rather than independent variation. Equifinality recognises that different configurations can achieve similar outcomes through alternative combinations of elements, acknowledging multiple viable pathways while maintaining coherent element groupings. Systemic interaction emphasises that the relationships among elements are as crucial as the elements themselves, producing emergent properties and capabilities that cannot be predicted from the elements in isolation.

Through a systematic review of disruptive innovation literature from 1995 to 2023, we employed a two-stage analytical process to identify the dimensional dynamic at the heart of a configurational perspective. Stage 1 involved open coding of theoretical contributions across 94 articles, systematically extracting how scholars described disruptive innovation's key characteristics and dynamics. Stage 2 comprised pattern coding that revealed five dimensions - structure, value creation, competition, scale and scope, and capabilities - consistently appearing across studies but varying in expression depending on context. Empirical examples embedded within the literature (e.g., Ansari et al., 2016; Beltagui et al., 2020; Cozzolino et al., 2018; Eaton et al., 2015; Ghazawneh & Henfridsson, 2013; Johnson & Christensen, 2008;

Kivimaa & Rogge, 2022; Lee & Shin, 2018; Ma et al., 2018; Ozalp et al., 2018; Parry & Kawakami, 2017; Schmidt et al., 2021) served as critical analytical anchors for understanding how these dimensions manifested differently across contexts (cf. Table 2).

Table 2

Case Selection Table: Dimensional Characteristics and Configurational Rationale

Case	Configuration	Structure	Value Creation	Competition	Scale & Scope	Capabilities	Selection Rationale
Apple iPod/iTunes	Enterprise-led	Centralised firm control over hardware-software integration	Firm-anchored value through proprietary ecosystem; boundary-spanning by connecting music acquisition with portable playback	Binary positioning against traditional music retailers and existing MP3 players	Product/service level within digital entertainment industry	Dynamic capabilities in sensing digital music opportunity and integrated design	Demonstrates classic enterprise-led pattern with firm maintaining control while creating boundary-spanning value proposition
Netflix Streaming	Enterprise-led	Firm-level orchestration of content delivery platform	Firm-anchored value creation through content aggregation and streaming technology	Direct competition with cable providers and video rental chains	Service-level transformation within entertainment distribution	Dynamic capabilities in technology transition and content strategy	Shows enterprise-led evolution from physical to digital, illustrating adaptive capabilities within firm boundaries
Android OS	Innovation Ecosystem	Distributed coordination across device manufacturers, app developers, Google	Boundary-spanning value through open platform enabling diverse participants	Complex coopetition between Google, manufacturers, and Apple ecosystem	Industry-level transformation of mobile computing	Ecosystem orchestration capabilities and platform governance	Demonstrates distributed innovation with Google as orchestrator but not controller of all value creation
Amazon Web Services	Innovation Ecosystem	Platform architecture enabling third-party innovation without hierarchical control	Boundary-spanning value through cloud infrastructure supporting diverse applications	Ecosystem-to-ecosystem competition with Microsoft Azure, enabling vs. direct competition	Industry-level transformation of IT infrastructure	Platform design and ecosystem orchestration capabilities	Exemplifies ecosystem configuration where platform enables value creation by others rather than creating all value internally
Airbnb	Innovation Ecosystem	Multi-sided platform connecting hosts, guests, service providers	Boundary-spanning value creation through peer-to-peer transactions	Coopetition dynamics with traditional hospitality while creating new market category	Industry-level impact on hospitality and real estate markets	Network orchestration and trust-building capabilities	Shows how ecosystems can create entirely new market categories rather than disrupting existing ones
TiVo	Innovation Ecosystem	Complex stakeholder alignment across TV networks, cable providers, advertisers, consumers	Boundary-spanning value by connecting content consumption with advertising models	Strategic positioning requiring careful navigation of incumbent ecosystem interests	Industry-level transformation attempt of television viewing	Ecosystem navigation and multi-stakeholder alignment capabilities	Demonstrates ecosystem orchestration complexity and potential failure when alignment mechanisms insufficient
PlayStation Platform	Innovation Ecosystem	Platform governance balancing control with third-party developer freedom	Boundary-spanning value through games console + developer ecosystem	Platform-to-platform competition while enabling developer coopetition	Industry-level transformation of gaming from individual products to platform ecosystems	Platform governance and developer relationship management	Shows progression from enterprise-led hardware to ecosystem-centred platform over time
Finland MaaS	Socio-technical System	Multi-level governance coordinating public, private, and civic sectors	Value-system-spanning integration of mobility, environmental, and social benefits	Policy-governed coevolution with deliberate incumbent transformation support	Multi-system transformation across transportation, energy, urban planning	Systemic institutional fluidity and policy experimentation capabilities	Demonstrates full socio-technical system configuration with policy-led orchestration across multiple domains
Shanghai Sharing Mobility	Socio-technical System	Coordinated governance across municipal authorities, technology platforms, traditional transport	Value-system-spanning sustainability vision integrating transportation, environmental, and urban development goals	Policy-governed selection environment supporting sharing economy while managing transport transition	Multi-system transformation of urban mobility, environmental impact, and social practices	Cross-system coordination and adaptive governance capabilities	Shows how socio-technical configuration operates across technological, regulatory, and social dimensions simultaneously

Five Dimensions Defined. The dimension of structure refers to the structural arrangements and governance patterns that define how disruptive innovation is coordinated, controlled, and directed (Adner, 2016; Nagy et al., 2016; Palmié et al., 2020). This dimension describes who owns the innovation process and how decision-making authority is distributed among participants.

Value Creation refers to how and where value is created, captured, and distributed through disruptive innovation (Adner & Kapoor, 2010; Adner, 2012; Cozzolino et al., 2018; Khan & Bohnsack, 2020; Nagy et al., 2016; Palmié et al., 2020; Parry & Kawakami, 2017; Schmidt & Scaringella, 2020). This dimension describes the fundamental mechanisms, such as business models and value propositions, through which disruptive innovation delivers benefits to users, organisations, and stakeholders. For example, recent research demonstrates that value proposition design – how an offering or technology is presented to connect with what customers value – can positively alter the trajectory of disruptive innovation (Jin & Shin, 2020; Khan & Bohnsack, 2020; Schmidt & Scaringella, 2020; Teece, 2018).

Competition captures rivalry dynamics, strategic positioning, and interactions between disruptive innovators and existing market players or systems (Adner & Kapoor, 2016; Ansari et al., 2016; Beltagui et al., 2020; Christensen & Raynor, 2003; Cozzolino et al., 2018; Ho, 2022; Herold et al., 2021; Ozalp et al., 2018). It reveals how competitive tensions emerge and are managed across different configurations.

Scale and Scope refers to the breadth, depth, and boundaries of disruptive innovation impact. This dimension indicates how far-reaching the disruption is, what elements of existing systems are affected, and the magnitude of transformation achieved (Geels, 2004, 2018; Kivimaa & Rogge, 2022; Kumaraswamy et al., 2018; Ma et al., 2018).

Capabilities refers to the distinctive competencies, skills, and abilities required to successfully initiate, manage, and sustain disruptive innovation within each configuration (Christensen & Raynor, 2003; Cozzolino et al., 2018; Kivimaa & Rogge, 2022; Ma et al., 2018; Herold et al., 2021; Nagy et al., 2016; Tan et al., 2020; Teece, 2007; Teece, Pisano, & Shuen, 1997). These capabilities determine an organisation's or system's ability to recognise opportunities, mobilise resources, and navigate the complexities of disruptive change.

Three Configurational Patterns. In studying the patterns of these dimensions and how empirical cases demonstrated different expressions across these five dimensions, we identified three distinct configurations. The first configuration, the enterprise-led configuration, preserves the essence of Christensen's original concept while acknowledging more complex competitive dynamics. The second, the innovation ecosystem configuration

captures how disruptive innovation emerges from networks of interdependent actors collectively creating value through shared propositions. The third, the socio-technical system configuration extends beyond commercial boundaries to encompass transformative processes that reshape entire societal systems around grand challenges. We examine each configuration in detail, exploring how the five dimensions manifest distinctly in enterprise-led, innovation ecosystem, and socio-technical system configurations. Figure 4 and Table 3 set out the three configurations and the five differentiating dimensions. Figure 5 sets out a visual representation.

Figure 4

Five Dimensions Manifest Distinctly Across Three Configurations of Disruptive Innovation (Source: Author of this thesis)

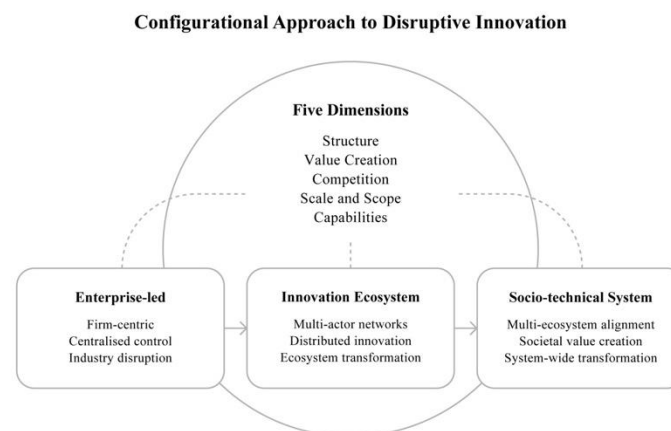


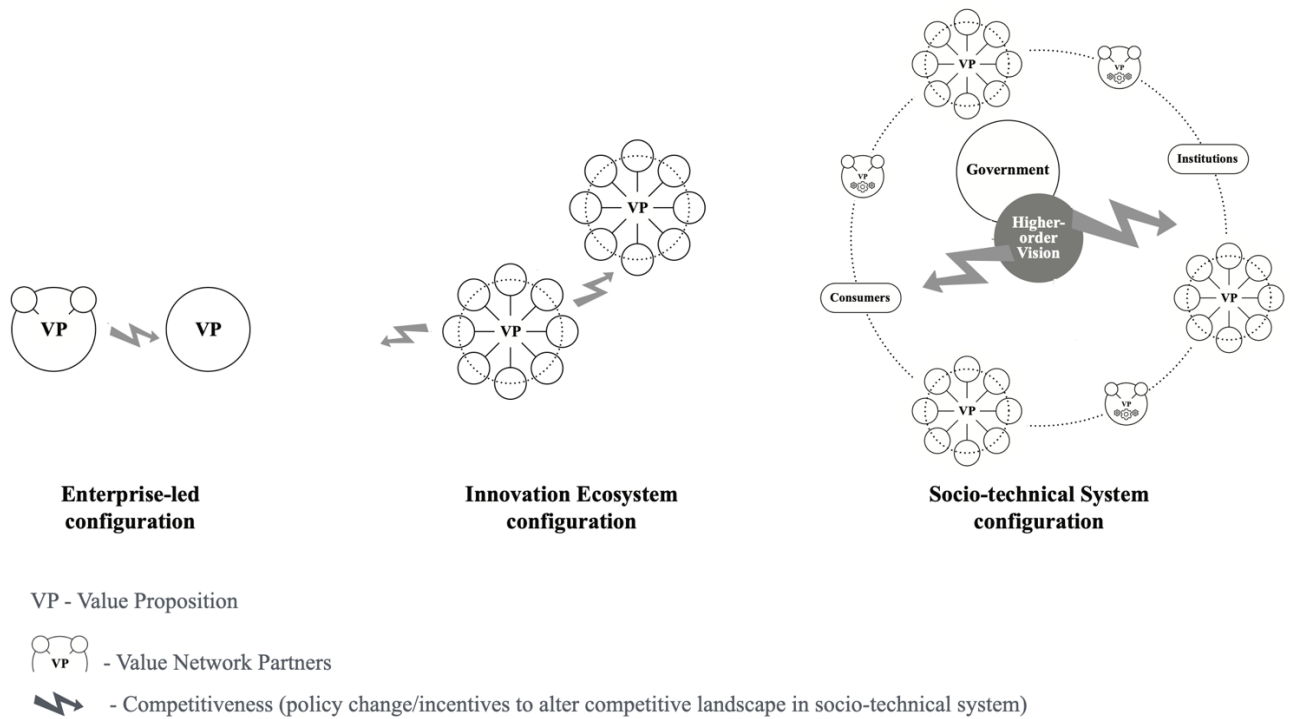
Table 3

Five Dimensions and Three Configurations of Disruptive Innovation (Source: Author of this thesis)

Dimension	Enterprise-led	Innovation Ecosystem	Socio-technical System
Structure	Single firm control with centralised decision-making and clear boundaries	Multi-actor networks with distributed control and complex competitive-cooperative dynamics	Alignment of multiple ecosystems with public, private, and social sector coordination
Value Creation	Firm-centric within value chain and limited partner network with firm-captured value	Collective value propositions across complementary actors with network effects	Directed by societal goals with integration of economic, social, and environmental value systems
Competition	Binary positioning (disruptors vs. incumbents) with firm-to-firm rivalries and predictable trajectories	Complex ecosystem competition with simultaneous cooperation and competition (coopetition)	Policy-governed selection with protection mechanisms for emerging alternatives and destabilisation of incumbents
Scope & Scale	Product/service level disruption within industry segments and defined market boundaries	Industry-level transformation with network effects amplifying impact and cascading effects	System-wide transformation impacting policies, institutions, infrastructures, and fundamental societal systems
Capability	Dynamic capabilities (sensing, seizing, reconfiguring) with technological innovation and niche market identification	Ecosystem orchestration with platform leadership and complementary resource configuration	Intercohesion capabilities with policy experimentation, niche development, and systems thinking

Figure 5

Visualisation of the Three Configurations of Disruptive Innovation (Source: Author of this thesis)



5.3 The Enterprise-Led Configuration

The enterprise-led configuration represents the most traditional and well-established pattern of disruptive innovation. In this configuration, disruptive innovation originates from and is primarily controlled by a single firm (the disruptor) strategically challenging industry norms (Bower & Christensen, 1995; Christensen, 1997; Christensen & Raynor, 2003). While representing the most traditional configuration, enterprise-led disruptive innovation is highly relevant in contemporary contexts. It serves as both a standalone pattern and a potential first stage in more complex disruptive trajectories that may eventually evolve toward innovation ecosystem or socio-technical system configurations as they expand their transformative impact.

5.3.1 Differentiating Dimensions

Structure. In the enterprise-led configuration, structure is characterised by centralised orchestration capability focused within firm boundaries. A clearly identified firm maintains primary control over the disruptive innovation process, making strategic decisions about the innovation's development and commercialisation. While the firm may engage with external partners through its value network, it retains primary authority over the innovation's trajectory. The innovation orchestration challenge is relatively contained, with the firm as the central actor driving disruptive innovation through its own strategic vision and resources (Bower &

Christensen, 1995; Christensen & Raynor, 2003; Nagy et al., 2016; Si & Chen, 2020; Yu & Hang, 2010).

Value Creation. Value creation begins to demonstrate some boundary-spanning qualities but remains primarily anchored within the firm's value chain and limited network of partners (Cozzolino et al., 2018; Nagy et al., 2016; Parry & Kawakami, 2017). The innovating firm maintains significant control over how value is created and captured, focusing on developing radical functionality, discontinuous technical standards, or novel value propositions that redefine market expectations (Danneels, 2004; Jin & Shin, 2020; Khan & Bohnsack, 2020; Markides, 2006; Nagy et al., 2016). While the innovating firm primarily captures value through proprietary approaches and traditional business models, the disruptive innovation itself often begins exhibiting boundary-spanning qualities by creating novel connections between previously separate customer segments or value attributes, foreshadowing the more extensive boundary-spanning characteristics that emerge in later configurations (Johnson & Christensen, 2008; Nagy et al., 2016; Parry & Kawakami, 2017). An example is Apple's iPod and iTunes where Apple combined their digital music player (iPod) with the iTunes store, redefining both the technology and how music was delivered to customers (Johnson & Christensen, 2008).

Competition. Competition in this configuration represents a responsive coevolutionary environment primarily through binary positioning between disruptors and incumbents, with clear strategic positioning as either challengers or defenders (Bower & Christensen, 1995; Christensen & Raynor, 2003; Cozzolino et al., 2018; Guo et al., 2019; Nagy et al., 2016; Parry & Kawakami, 2017; Petzold et al., 2019; Schmidt et al., 2021; Si & Chen, 2020; Yu & Hang, 2010).

The competitive landscape is characterised by firm-to-firm rivalries where disruptors introduce selection pressures that incumbents must respond to. In response, incumbents may adapt their business models (Cozzolino et al., 2018; Schmidt et al., 2021), extend their current technologies to challenge new entrants (Adner & Kapoor, 2016), or collaborate with disruptors (Anagnostopoulos, 2018; Lee & Shin, 2018). Furthermore, incumbents and regulatory actors in different industries and jurisdictions sometimes coordinate to resist disruption by challenging innovators (Zietsma, Toubiana, Voronov, & Roberts, 2018).

Scale and Scope. Enterprise-led disruptive innovation shows limited cascading effects, operating primarily at the product or service level within industry boundaries. While significantly impacting affected companies, it rarely transforms entire industrial systems or broader social practices. Its boundaries remain relatively clear and market-defined, focusing on specific product categories, service models, or business approaches. Key patterns in scale

and scope include disruption primarily contained within specific industry segments or adjacent markets where transformative effects concentrate on direct competitors and immediate market stakeholders, with minimal cascade effects to adjacent systems.

For instance, while Netflix fundamentally disrupted video rental and subsequently television networks and cable providers, its impact remained largely within entertainment distribution rather than triggering systemic transformation across multiple industries simultaneously. Similarly, Amazon's initial disruption of book retailing expanded to broader e-commerce but maintained recognisable industry boundaries during its early disruptive phase.

Capabilities. Enterprise-led configuration success requires dynamic capabilities for sensing opportunities, seizing them strategically, and reconfiguring resources adaptively (Teece, 2007, 2018). Management must also overcome limiting strategic beliefs that hinder adaptation to evolving markets and technologies (Vecchiato, 2017).

Critical capabilities in this configuration include technological innovation capabilities that enable performance improvement along new trajectories, niche market identification skills to identify underserved segments with growth potential, business model innovation capabilities to redefine value propositions and capture mechanisms, and organisational adaptability to pivot as market feedback reveals new opportunities (Christensen & Raynor, 2003; Nagy et al., 2016; Teece et al., 1997).

5.3.2 Exemplar Cases and Patterns

As highlighted above, enterprise-led disruptive innovation is exemplified by several well-documented cases that demonstrate the configuration's distinctive patterns across all five dimensions.

Apple's iPod/iTunes Ecosystem: Apple maintained centralised control over both hardware and software components while creating boundary-spanning value by connecting digital music acquisition with portable playback. The company competed directly against traditional music retailers and existing MP3 players but with a distinctive value proposition combining simplicity and comprehensive music access. While transformative for music distribution, its impact remained primarily within digital entertainment rather than triggering systemic change across multiple industries. Apple's success demonstrated superior dynamic capabilities in sensing the digital music opportunity, seizing it through integrated hardware-software design, and reconfiguring resources from its computer business (Johnson & Christensen, 2008).

Netflix's Streaming Transformation: Netflix maintained firm-level orchestration while transitioning from DVD-by-mail to streaming, creating boundary-spanning value by

connecting film libraries with convenient on-demand viewing. Its disruption initially targeted video rental stores before challenging cable providers and eventually traditional content producers. While significant, this disruption remained within entertainment distribution rather than transforming broader social systems. Netflix demonstrated exceptional capabilities in sensing shifting consumer preferences, seizing the streaming opportunity despite potential cannibalisation of its existing business, and reconfiguring from a logistics-centred to a technology and content-centred organisation (Johnson & Christensen, 2008).

5.3.3 Transition Indicators

Enterprise-led disruptive innovation may evolve toward innovation ecosystem configurations when the disruptive innovation's value proposition increasingly depends on complementary innovations from independent actors; network effects become central to the offering's value rather than supplementary; the original firm strategically reduces control to accelerate innovation and adoption; boundary resources like APIs and development platforms become critical strategic assets; and value creation shifts from primarily internal processes to distributed co-creation (Ansari et al., 2016; Adner & Kapoor, 2010; Adner, 2012; Adner, 2016; Jacobides et al., 2018; Kumaraswamy et al., 2018).

Interestingly, this transition may occur even without the focal firm's initial intention to open up its platform. As Jacobides et al. (2018) note, an ecosystem may coalesce even without the focal firm's desire to open up, as happened with Apple's early iPhone ecosystem of unauthorised apps. In Apple's case, what began as an "accidental" or even "illicit" ecosystem of unauthorised applications eventually transformed into the company's strategic foundation as they recognised the value of complementary innovation. Apple subsequently formalised this ecosystem through the introduction of boundary resources like development kits and APIs, ultimately transitioning from their previous enterprise-led iPod/iTunes model to a thriving innovation ecosystem configuration (Eaton et al., 2015; Ghazawneh & Henfridsson, 2013).

This example illustrates how organisations may initially resist ecosystem formation before embracing it as a strategic advantage, revealing how the transition between configurations can involve complex organisational learning and adaptation (Gawer & Cusumano, 2014).

5.4 The Innovation Ecosystem Configuration

The innovation ecosystem configuration represents a significant evolution in how disruptive innovation manifests in modern economic contexts (Ansari et al., 2016; Hopp et al., 2018; Kumaraswamy et al., 2018; Ozalp et al., 2018; Palmié et al., 2020). Rather than emerging from a single firm, disruptive innovation arises from networks of interdependent actors

collectively creating value without hierarchical control, demonstrating sophisticated innovation orchestration capability across organisational boundaries. This configuration reflects the 21st century's increasingly interconnected business landscape, where industry boundaries blur and value creation transcends individual organisations (Kumaraswamy et al., 2018; Palmié et al., 2020). The disruptive force emerges from orchestrated activities of multiple complementary participants co-evolving around shared value propositions (Adner 2010, 2016; Jacobides et al., 2018; Palmié et al., 2020).

The strategic complexity of innovation ecosystem disruptive innovation derives from its inherently multilateral or heterarchical nature. Unlike enterprise-led disruptive innovation, where strategic intent resides primarily within a single disruptive firm, ecosystem disruptive innovation emerges from the interplay of multiple actors with both aligned and divergent interests (Ansari et al., 2016). This requires sophisticated alignment mechanisms that extend beyond traditional contractual or market relationships, establishing shared understanding of roles, responsibilities, and value distribution without full hierarchical control (Adner, 2016; Jacobides et al., 2018).

5.4.1 Differentiating Dimensions

Structure. In the innovation ecosystem configuration, structure manifests as distributed innovation orchestration capability across multiple interdependent actors without hierarchical governance (Adner, 2016; Jacobides et al., 2018). An innovation ecosystem represents “a new structure of economic relationships” with “varying degrees of multilateral, non-generic complementarities” that are “not fully hierarchically controlled” and where the anchoring point shifts from the firm to the “system of innovation,” with actors strategically aligning while maintaining their independence (Granstrand & Holgersson, 2020; Jacobides et al., 2018). These multilateral relationships are not decomposable into multiple bilateral relationships, creating a distinct organisational form structured around collective innovation orchestration of a shared value proposition and innovation processes (Adner, 2016).

Value Creation. Value creation in this configuration is a boundary-spanning activity, becoming collective and participatory, with shared value propositions at the centre of ecosystem activities (Adner, 2016; Jacobides et al., 2018). Multiple actors contribute complementary capabilities to co-create value that no single organisation could generate independently, explicitly connecting previously separate domains. Network effects are paramount – value increases as more participants join the ecosystem, creating reinforcing cycles of growth and innovation (Kamolsook et al., 2019; Muller, 2020; Ozalp et al., 2018). Disruptive complementarity emerges as actors strategically align to co-develop a new

paradigm of value creation and capture and innovative problem solving (Anagnostopoulos, 2018; Antonio & Kanbach, 2023; Dattée et al., 2018; Hou & Shi, 2021; Kumaraswamy et al., 2018; Palmié et al., 2020; Silva & Grützmann, 2023).

Competition. Competition fully manifests as a competitive and coevolutionary environment through a complex blend of cooperation, competition, and coopetition (simultaneous cooperation and competition) between ecosystem members. This is because even as collaborative actors jointly create value, they have divergent motivations and interests (Ansari et al., 2016; Kumaraswamy et al., 2018). Competitive dynamics operate at two levels: internal ecosystem competition for niche positions and ecosystem-to-ecosystem competition in the marketplace (Herold et al., 2021; Beltagui et al., 2020). Distinctive competitive/coevolutionary processes include “constituting” (stitching together new viable ecosystems) (Ansari et al., 2016), “de-constituting” (making obsolete a platform’s installed base and established complementor linkages), and “reconstituting” (a newly configured ecosystem with more competitive capability and a more compelling offering) (Ozalp et al., 2018). These processes represent deliberate shaping of selection environments.

For example, TiVo’s entry into and transformation of the TV industry ecosystem required the navigation of a complex network of stakeholders including TV networks, cable providers, advertisers, and consumers. Through strategic framing and reframing of its innovation and careful positioning in the ecosystem, TiVo minimised perceived threats to diverse actors while “stitching together a new viable ecosystem” that granted access to complementary resources from the incumbent ecosystem it was disrupting (Ansari et al., 2016). This case demonstrates how innovation ecosystem disruptive innovation requires managing complex multilateral relationships rather than simply competing against incumbents.

Airbnb, as another example, created a platform connecting hosts, guests, and various service providers without hierarchical control. Value creation became participatory, with hosts providing accommodations and guests accessing them through a shared platform. Competition evolved in interesting ways, with Airbnb initially framing its offering as complementary to hotels while continuously innovating to compete across the full hotel offering spectrum. Hotels, in turn, adapted by incorporating Airbnb-like attributes. Network effects helped Airbnb overcome initial performance limitations, allowing it to expand from impacting lower-end hotels to eventually challenging luxury segments (Dogru et al., 2019; Guttentag & Smith, 2017).

Scale and Scope. The innovation ecosystem can reconfigure and transform multiple elements of an industry simultaneously, creating cascading effects where disruptions in one

domain trigger transformations in others. The impact extends beyond individual products to affect industry structures, business models, and market relationships. Customer embeddedness in the ecosystem and their direct participation in the value creation process amplify transformative effects (Kamolsook et al., 2019).

For example, Airbnb's platform ecosystem reconfigured multiple elements of the accommodation industry simultaneously. By connecting hosts with travellers, it disrupted traditional hotel revenue models, which triggered transformations in how properties are managed, marketed, and monetised. The cascading effects extended to real estate markets (with investors purchasing properties specifically for short-term rentals), local regulations (prompting cities to develop new oversight frameworks), and complementary service providers (spawning photography, cleaning, and property management businesses). Customer embeddedness amplified these effects as travellers became active participants in the value creation process through reviews, direct communication with hosts, and personalised experiences. The review system created accountability mechanisms beyond traditional hotel quality assurances, fundamentally altering industry trust structures and customer expectations. This ecosystem-wide transformation extended far beyond a simple accommodation booking tool to reshape entire market relationships across the hospitality landscape.

Kamolsook et al. (2019) argue that the high value provided by a network (or ecosystem) compensates for any weaker performance characteristics in the early stages of a disruptive offering. Consequently, integrating products into a network of actors or providing complementary products can make up for any initial weaker performance and encourage adoption. For example, in digital TV, consumers derive greater value from having more complements (TV channels and digital add-on content) and from interaction among connected consumers watching the same programme. Additionally, in offerings like mobile games and media streamers, post-adoption activities rather than initial adoption can influence disruptive outcomes more (Muller, 2020; Kamolsook et al., 2019).

Consequently, increasing customer and complementor embeddedness in innovation ecosystems, particularly in platforms, makes the ecosystem/platform progressively more challenging to disrupt, highlighting the substantial scale and enduring impact of innovation ecosystem disruptive innovation (Kumaraswamy et al., 2018; Ozalp et al., 2018).

Capabilities. This configuration depends on ecosystem orchestration – coordinating multiple actors without hierarchical control toward a shared value proposition. Critical skills include assembling diverse capabilities across participants and developing absorptive capacity to identify and exploit knowledge throughout the network (Wang et al., 2020). Platform design

enables value co-creation, while ecosystem adaptability allows strategies to evolve with emerging challenges. This interorganisational fluidity manifests in simultaneously navigating commercial, technological, and user domains while balancing competing interests and maintaining ecosystem coherence (Ansari et al., 2016).

5.4.2 Exemplar Cases and Evolutionary Patterns

We have already referred to the case of Airbnb, and the evolution of Apple's iOS from enterprise-led to innovation ecosystem configuration. A further example of a disruptive innovation emerging from an ecosystem approach is Amazon Web Services (AWS). Amazon's evolution from an online retailer to a dominant cloud computing provider demonstrates how distributed innovation can fundamentally transform entire industries. AWS created a cloud ecosystem where multiple participants – including third-party software developers, startups, enterprises, independent software vendors and technology partners – collectively contribute to innovation. By establishing a platform that enabled others to innovate, Amazon facilitated a coevolutionary process that delivered increasingly scalable and cost-effective computing resources, fundamentally disrupting traditional IT infrastructure and enterprise software industries (Cusumano, Gawer, & Yoffie, 2019). AWS's success illustrates how platform owners can orchestrate innovation without hierarchical control, enabling value creation that extends far beyond what any single organisation could achieve independently.

The gaming industry provides another example with Sony's PlayStation. Beginning as a proprietary gaming console with tightly controlled game development, Sony gradually opened its platform to a broader range of developers while maintaining quality standards through boundary resources and platform governance. The resulting ecosystem generated far greater value through complementary innovations from independent studios than Sony could have created independently (Ozalp et al., 2018).

Android's emergence as a mobile operating system further demonstrates this configuration's distinctive characteristics. Unlike Apple's initially restrictive approach, Google embraced openness from the outset, creating a platform explicitly designed for distributed innovation across device manufacturers, app developers, and service providers. By establishing clear boundary resources but minimal hierarchical control, Android fostered a highly generative ecosystem that rapidly evolved through the collective capabilities of diverse participants (Karhu et al., 2018).

These cases illustrate how innovation ecosystem disruptive innovation fundamentally differs from enterprise-led disruptive innovation. Rather than a single firm challenging established incumbents through a superior offering, the disruptive potential emerges from the

collective innovation orchestration capabilities of an interdependent network, with value creation distributed across ecosystem participants. The platform owner or ecosystem keystone actor serves not as a controlling authority but as an orchestrator establishing the conditions for generative innovation and value co-creation.

5.4.3 Transition Indicators

Several key indicators signal a transition from innovation ecosystem to socio-technical system configuration. As ecosystems mature, they may begin to address broader societal challenges that transcend purely commercial objectives, indicating movement toward the socio-technical configuration. This transition occurs when ecosystem value propositions expand to incorporate explicit environmental, social, and governance (ESG) dimensions, requiring collaboration with public-sector entities and civil society organisations (Kivimaa & Rogge, 2022; Ma et al., 2018).

The emergence of policy frameworks specifically designed to support ecosystem evolution represents another transition indicator, as does the increasing involvement of government bodies as active ecosystem participants rather than simply regulatory overseers (Kivimaa & Kern, 2016). Organisational capabilities also evolve during this transition, with firms developing intercohesion capabilities that allow them to simultaneously operate within commercial, public, and social domains (Tan et al., 2020).

For example, smart city initiatives often begin as commercially oriented innovation ecosystems centred around digital infrastructure platforms, but transition toward socio-technical system configurations as they increasingly incorporate public transportation, energy systems, citizen participation, and urban governance. Similarly, fintech ecosystems initially focused on commercial banking alternatives may evolve toward financial inclusion and social impact goals, incorporating microfinance institutions, regulatory bodies, and community organisations that extend beyond purely market-driven objectives (Arner et al., 2022; Senyo et al., 2021).

The shift from innovation ecosystem to socio-technical system configuration is not merely an expansion of scale but represents a fundamental transformation in governance mechanisms, value creation processes, and strategic objectives to address complex societal challenges through coordinated multi-system change (Geels, 2002, 2004; Kivimaa & Rogge, 2022).

5.5 Socio-Technical System Configuration

The socio-technical system configuration represents the most expansive pattern of disruptive innovation, orchestrating transformative change across multiple interconnected systems and embodying the most sophisticated expression of all five dimensional patterns. In this configuration, disruptive innovation radically transforms entire systems like mobility, energy, or agri-food networks (Kuokkanen et al., 2019; Kivimaa & Rogge, 2022; Ma et al., 2018; Pinkse et al., 2014; Geels, 2018). It addresses grand societal challenges through higher-order visions such as sustainable cities (Ma et al., 2018) or mobility-as-a-service (Kivimaa & Rogge, 2022). Multiple, mutually influencing innovations across ecosystems drive system-wide change, supported by policy experimentation and institutional transformation (Kuokkanen et al., 2019; Kivimaa & Rogge, 2022).

5.5.1 Differentiating Dimensions

Structure. In the socio-technical system configuration, structure achieves its most advanced form through the deliberate alignment of multiple ecosystems around higher-order, often mission-oriented goals. Unlike enterprise-led innovation originating within a single firm, or innovation ecosystems driven by networks of actors around shared value propositions, socio-technical system disruptive innovation involves coordinated efforts across public, private, and civil society sectors. This extends beyond conventional public-private partnerships to adopt an ecosystem logic capable of addressing complex societal challenges through integrated innovation (Geels, 2002, 2004, 2018; Kivimaa & Kern, 2016; Kivimaa & Rogge, 2022; Ma et al., 2018; Jutting, 2022; Lazarevic et al., 2019; Russell & Smorodinskaya, 2018).

In this configuration, governments often play a central orchestration role –coordinating action among companies, suppliers, customers, and complementary actors. The resulting structure is multi-layered and cross-sectoral, integrating technological, commercial, political, and social subsystems to enable systemic transformation. Geels (2004; 2018) describes this as an alignment process across niche innovations, dominant regimes, and the broader socio-technical landscape. Unlike configurations focused primarily on market performance, socio-technical structures require governance mechanisms that span institutional boundaries – bridging public policy, cultural narratives, and civil society networks.

Value Creation. In the socio-technical system configuration, value creation expands to span entire value systems, guided by transformative societal missions rather than narrow commercial objectives. It integrates economic, social, environmental, and systemic benefits, aligning innovation with higher-order visions and connecting previously distinct value domains at unprecedented scale. As in Finland’s Mobility-as-a-Service initiative (Kivimaa & Rogge,

2022), value creation stems from reimagining how essential systems operate. These visionary innovations orchestrate multiple actors across ecosystems and sectors, marrying commercial viability with public good to address complex societal challenges while ensuring economic sustainability for participants.

This form of value creation is defined by collective value multipliers where the integration of various actors – such as businesses, policymakers, and communities – can lead to enhanced outcomes. By fostering collaboration and aligning goals across different sectors, these collective efforts can amplify the impact of individual initiatives, leading to more significant and widespread benefits.

Geels (2018) argues that socio-technical transitions demand multi-dimensional value creation encompassing technological, economic, social, cultural, and policy domains. Achieving this requires value translation – the ability to articulate and align value propositions across diverse institutional logics and stakeholder priorities. Unlike enterprise-led or conventional ecosystem models, socio-technical disruptive innovation must bridge fundamentally different worlds, enabling innovation to serve as a platform for systemic change.

Competition. In the socio-technical system configuration, competition unfolds within a coevolutionary environment intentionally shaped by public and private policy mechanisms. Unlike conventional models where competition is driven primarily by market forces, here it is governed by strategic policy mixes designed to destabilise incumbent regimes while nurturing emergent alternatives (Kivimaa & Kern, 2016; Pinkse et al., 2014). Kivimaa and Kern (2016) emphasise the use of policy instruments to support niche innovations and establish the innovation systems necessary for their success, while simultaneously creating openings that challenge dominant regimes.

Competitive dynamics are therefore deliberately structured to serve broader societal goals. In the low-emission vehicle sector, for example, Pinkse et al. (2014) show how governments use regulatory levers, tax incentives, and public-private partnerships to redefine market norms around emissions and fuel efficiency. At the same time, firms adopt private strategies such as niche positioning and resource bundling to align with these policy-driven shifts. Together, these interventions shape selection environments in ways that enable and accelerate transformative change.

In this context, competition operates not just between firms but as system-level selection pressures across multiple dimensions: technological (which innovations advance), market (which business models succeed), institutional (which governance structures endure), and social (which norms and practices take hold). These pressures operate concurrently across

micro (technologies and behaviours), meso (industries and ecosystems), and macro (institutional and societal) levels (Geels 2004, 2018).

Scale and Scope. In socio-technical system disruptive innovation, the scale and scope of change are expansive and recursive, triggering fundamental reconfigurations across entire societal systems. This configuration transcends traditional commercial markets to transform foundational structures such as policies, institutions, infrastructures, market arrangements, user practices, cultural meanings, scientific knowledge, and shared value systems (Kuokkanen et al., 2019; Pinkse et al., 2014). Transformation occurs through multi-level cascading effects that operate simultaneously across micro (technologies and practices), meso (industry and ecosystem structures), and macro (institutional and societal) levels – creating reinforcing cycles of change (Geels, 2004, 2018).

This type of disruptive innovation is distinguished by cross-system feedback *mechanisms* or “mutually influencing waves” that accelerate and deepen transformation (Ma et al., 2018). These mechanisms link technological innovation, market adoption, institutional evolution, and shifts in social practice into self-reinforcing loops. For instance, in urban mobility transitions, advances in electric vehicles open new market opportunities, which lead to redesigned urban infrastructure, revised policy frameworks, and eventually transformed cultural norms around transportation. Each layer of change amplifies the next, producing a recursive dynamic that expands the transformation’s depth and reach (Ma et al., 2018; Kivimaa & Rogge, 2022).

Capabilities. The socio-technical system configuration demands exceptional systemic institutional fluidity through several distinctive capabilities. Key among these is intercohesion – operating at the intersection of multiple cohesive groups to access diverse knowledge for cross-boundary innovation (Tan et al., 2020). Success requires coordinated governance balancing business ecosystems with social-ecological parameters (Ma et al., 2018), alongside policy experimentation capabilities that soften institutional barriers (Kivimaa & Rogge, 2022).

Organisations must navigate across commercial, public, social, technological, environmental, and political domains simultaneously – a far more complex landscape than other configurations. Critical capabilities include systems thinking, strategic niche development, facilitation of collective learning processes, and formation of novel networks aligning diverse stakeholders toward transformative goals (Kivimaa & Rogge, 2022).

These institutional bridging competencies enable actors to work effectively across diverse value systems, governance arrangements, and knowledge domains. They include the ability to translate between different institutional languages (e.g. commercial, regulatory,

scientific, and social), create shared understanding across diverse stakeholder groups, and develop legitimate positions within multiple institutional settings simultaneously (Geels 2004, 2018; Kivimaa & Rogge, 2022).

5.5.2 Exemplar Cases and Evolutionary Patterns

Several exemplar cases illustrate the distinctive characteristics of socio-technical system disruptive innovation, demonstrating how this configuration manifests across various domains.

Finland's Mobility-as-a-Service (MaaS) initiative exemplifies socio-technical system disruptive innovation by orchestrating transformation across the entire mobility system. This case demonstrates the critical importance of several key elements: visionary leadership that establishes a compelling future state; whole-system perspective that integrates diverse transport modes; strategic niche development led by publicly funded organisations; experimental governance approaches that soften institutional barriers; diversity of participants spanning public, private, and civic sectors; collective learning processes across cognitive and normative dimensions; policy frameworks that enable rather than constrain innovation; and coordinated public-sector support through aligned funding mechanisms (Kivimaa & Rogge, 2022).

The MaaS example shows how transformative visions can align multiple ecosystems around shared objectives while maintaining distinctive value propositions for diverse participants. The Finnish government acted not merely as a regulator but as an innovation orchestrator, establishing institutional conditions that enabled novel connections between previously separate transportation systems. This case illustrates the sophisticated expression of innovation orchestration capability required in socio-technical system disruptive innovation – the ability to coordinate action across technological, commercial, and social domains without direct hierarchical control.

The Shanghai sharing mobility transformation, studied by Ma et al. (2018), exemplifies socio-technical system disruptive innovation through multi-stakeholder coordination to reimagine a sustainable city and urban transportation. The case demonstrates how multi-level changes across transportation technologies (mobility), digital platforms, regulatory frameworks, urban infrastructure, and social practices converged to achieve sustainability objectives that extended beyond any single market or industry boundary. This integrated approach created self-reinforcing feedback mechanisms that amplified transformation across the entire urban mobility system.

In this case municipal government orchestrated alignment between traditional transit systems and emerging app-based mobility services (ride-sharing, EV-sharing, and bike-sharing), with over 13 million residents adopting bike-sharing by 2017. Rather than relying on purely market-driven development, authorities implemented innovative policies that simultaneously addressed emerging challenges while enabling system-wide urban mobility transformation.

In examining low-carbon electricity transitions, Geels (2018) provides instructive examples of socio-technical system disruptive innovation in low-carbon electricity transitions, demonstrating how transformation emerges from complex interactions between multiple innovations rather than singular disruptive innovations. These transitions depend not only on radical innovations like renewables but also on hybridisation between niche innovations and regimes, complementary innovations in electricity networks and demand management, and policy frameworks that deliberately destabilise incumbent systems while protecting emerging alternatives. The UK experience illustrates both the possibilities and challenges of socio-technical system disruptive innovation. This example highlights the distinctive multi-dimensional and multi-level nature of socio-technical system disruptive innovation, where transformation requires alignment across technological, market, policy, and cultural domains simultaneously.

5.5.3 Future Trajectories

The socio-technical system configuration of disruptive innovation presents distinctive strategic and governance challenges as it continues to evolve. Several emerging patterns suggest future trajectories for this configuration.

First, the acceleration of climate change, resource constraints, and social inequalities is creating unprecedented pressures for system-level transformation across multiple domains simultaneously. This convergence of grand challenges is likely to intensify demand for socio-technical system disruptive innovation that can address interconnected problems through coordinated change across technological, commercial, social, and policy dimensions.

Second, experimental governance approaches are evolving to better support socio-technical system disruptive innovation through more sophisticated policy mixes that combine protection mechanisms for emerging alternatives with destabilisation pressures on incumbent systems. These approaches increasingly incorporate adaptive learning processes, anticipatory regulation models, and multi-level coordination frameworks that facilitate more effective navigation of complex transition pathways.

Finally, new organisational forms and institutional arrangements are emerging, specifically designed to facilitate socio-technical system disruptive innovation. These include mission-oriented innovation ecosystems as coordinating architectures for collaborative innovation (Jutting, 2022), specialised intermediaries that bridge diverse institutional domains, heterarchical governance structures that enable collective decision-making, and cross-sector collaboration platforms that build bridges between previously separate domains while maintaining sufficient operational coherence (Russell & Smorodinskaya, 2018). Such new arrangements represent a distinctive departure from traditional organisational models, as they enable more adaptive, horizontal coordination across institutional boundaries without relying on hierarchical control mechanisms.

These emerging patterns suggest that socio-technical system disruptive innovation will continue to evolve as a distinctive configuration, requiring tailored theoretical frameworks, strategic approaches, and governance mechanisms that differ significantly from those associated with enterprise-led or innovation ecosystem configurations. The future development of this configuration will likely involve increasingly sophisticated expressions of the five evolved dimensional patterns identified in this paper – particularly advanced forms of innovation orchestration capability, value-system-spanning value creation, competitive coevolutionary selection environments, multi-level recursive transformation, and systemic institutional fluidity.

5.6 Discussion

5.6.1 A Configurational Definition of Disruptive Innovation

This paper advances our understanding of disruptive innovation by introducing a configurational framework that identifies three distinct manifestations of the phenomenon: enterprise-led, innovation ecosystem, and socio-technical system configurations. Rather than conceptualising these configurations as sequential replacements of earlier forms, we position them as an expanded repertoire of disruptive patterns that coexist in today's complex innovation landscape, each characterised by unique expressions across five differentiating dimensions.

In the context of this configurational perspective, we define disruptive innovation as *a transformative innovation orchestration process that reconfigures value creation, competitive and coevolutionary dynamics, organisational arrangements, and capabilities to create or remake markets, industries, ecosystems, and socio-technical systems through distinct configurations that reflect varied contextual requirements.*

This definition explicitly positions disruptive innovation within the configurational perspective, signalling its theoretical grounding. It departs from the descriptive firm, technology, market, and competitive focus of the original definition (Bower & Christensen, 1995; Christensen, 1997; Christensen et al., 2018; Christensen & Raynor, 2003) to present a systemic understanding of the phenomenon that accommodates diverse manifestations across organisational, institutional, and societal settings. By emphasising disruptive innovation orchestration processes that operate differently across configurations, our definition captures the dynamic and contextually embedded nature of disruptive innovation while retaining conceptual coherence.

This coherence is achieved through several mechanisms. First, all three configurations share the same fundamental dimensions, albeit expressed differently, providing an underlying structural unity. Second, the configurations exist along a continuum of increasing complexity and system-level impact rather than as completely disconnected phenomena. Third, we identify specific transition indicators between configurations, highlighting their interconnected rather than isolated nature. Finally, by focusing on innovation orchestration processes rather than specific technologies or market positions, our definition accommodates diverse expressions while maintaining a consistent theoretical core that connects back to Christensen's original insights about how disruptive change unfolds, even as it extends beyond them.

5.6.2 Theoretical Contributions

Our configurational approach makes several key theoretical contributions. First, it resolves persistent definitional ambiguities (Christensen et al., 2018; King & Baatartogtokh, 2015; Kumaraswamy et al., 2018; Lile et al., 2024; Palmié et al., 2020) by acknowledging that disruptive innovation manifests through distinct configurations rather than a singular trajectory. By identifying how the five key dimensions – structure, value creation, competition, scale and scope, and capabilities – manifest differently across each configuration, we provide a more nuanced conceptual foundation that accommodates disruptive innovation's diverse expressions while maintaining theoretical integrity. Each configuration represents a coherent constellation of dimensional patterns that together constitute a distinctive expression of disruptive innovation, allowing our framework to capture varied manifestations of the phenomenon without sacrificing conceptual clarity.

Our empirical analysis demonstrates that these three patterns constitute genuine configurations according to Miller's (1996) theoretical criteria. Internal coherence is evident in how dimensional elements systematically reinforce each other within each configuration –

distributed structural arrangements consistently pair with boundary-spanning value creation and coevolutionary competitive dynamics in the innovation ecosystem configuration, while centralised structures align with firm-anchored value creation and binary competition in the enterprise-led configuration. Equifinality manifests through different configurations achieving disruptive outcomes through alternative dimensional combinations – enterprise-led configurations through firm-anchored value and dynamic capabilities, innovation ecosystems through boundary-spanning orchestration and network effects, and socio-technical systems through value-system-spanning creation and institutional fluidity. Systemic interaction emerges through dimensional relationships producing emergent capabilities that exceed individual elements – the combination of multi-level governance, policy-governed competition, and cross-system coordination enables socio-technical configurations to achieve transformative societal impact impossible through any single dimensional element.

Second, our configurational framework extends the theory's explanatory power to contemporary phenomena that the original theory struggles to explain, particularly in digital, platform, emerging markets, and socio-technical system contexts (Antonio & Kanbach, 2023; Palmié et al., 2020; Si & Chen, 2020; Si et al., 2020). The innovation ecosystem configuration provides theoretical foundations for understanding platform-based disruptive innovation, network effects, and multi-actor value creation processes that challenge the firm-centric assumptions of traditional disruptive innovation theory (Kumaraswamy et al., 2018; Hopp et al., 2018; Palmié et al., 2020). This configuration acknowledges how competitive advantage increasingly emerges from shaping selection environments rather than just competing within them, addressing a significant blind spot in existing theory.

Third, by identifying the socio-technical system configuration, we extend the disruptive innovation concept to encompass transformative societal change directed toward grand challenges. Traditional disruptive innovation theory has primarily focused on market-based disruption while neglecting how disruptive innovations can drive system-wide societal transformation (Kuokkanen et al., 2019). By integrating insights from socio-technical transitions literature (Geels, 2002, 2004, 2018) and policy research (Kivimaa & Kern, 2016; Kivimaa & Rogge, 2022), our framework bridges previously separate theoretical domains and positions disruptive innovation as a potential mechanism for addressing complex societal challenges. This integration acknowledges how disruptive innovation increasingly manifests through coordinated action across public, private, and social sectors, guided by transformative visions that extend beyond commercial objectives.

Fourth, our configurational approach advances the theoretical understanding of how disruptive innovation operates across different levels of analysis. The enterprise-led configuration preserves the micro-level focus of traditional theory but recognises more complex coevolutionary processes. The innovation ecosystem configuration captures meso-level disruptive innovation emerging from networks of interdependent actors. The socio-technical system configuration extends to macro-level transformation of entire societal systems. By acknowledging these different levels and their distinctive dynamics, our framework provides a more comprehensive understanding of how disruptive innovation unfolds across varied contexts and scales.

Finally, our configurational framework contributes to knowledge integration across diverse fields. By demonstrating how disruptive innovation manifests differently in varied contexts, we provide a theoretical bridge between previously separate research streams, including platform economics, ecosystem theory, transition and sustainability studies, and innovation policy. This integration creates opportunities for cross-fertilisation of ideas and methodologies, potentially leading to more holistic approaches to understanding and managing transformative change.

5.6.3 Managerial Implications

For practitioners, our configurational framework offers clearer strategic guidance by identifying the distinctive challenges, capabilities, and governance mechanisms associated with each pattern of disruptive innovation. The evolved dimensional patterns provide a practical roadmap for developing configuration-specific approaches.

In enterprise-led contexts, firms should focus on developing innovation orchestration capabilities within their value chain and immediate partner network boundaries, creating distinctive value propositions that challenge industry norms while navigating coevolutionary competitive dynamics. Success requires dynamic capabilities that allow firms to sense opportunities, seize them strategically, and reconfigure resources adaptively (Teece, 2007, 2018), while building sufficient organisational fluidity to bridge traditional industry boundaries through innovative business models.

For innovation ecosystem disruptive innovation, organisations must excel at boundary-spanning value creation and develop capabilities to orchestrate multiple actors without hierarchical control. This requires strategic management of complex competitive dynamics where cooperation and competition coexist (Ansari et al., 2016), and where competitive advantage emerges from shaping ecosystem evolution rather than simple bilateral competition. Leaders must develop platform design capabilities, establish effective boundary resources, and

foster complementary innovation while navigating the tension between openness and control (Jacobides et al., 2018). Success depends on interorganisational fluidity - the ability to operate simultaneously across commercial, technological, and user domains while balancing competing interests.

In socio-technical system contexts, organisations face the challenge of coordinating transformation across multiple interconnected domains, including technologies, market structures, regulatory frameworks, and social practices. This requires sophisticated innovation orchestration capabilities that extend beyond any single ecosystem to align efforts across public, private, and social sectors around higher-order societal visions (Kivimaa & Rogge, 2022; Ma et al., 2018). Success demands systemic institutional fluidity – the capacity to work effectively across diverse institutional logics and governance arrangements, navigating between commercial, public, social, environmental, and political domains simultaneously. Organisations must develop capabilities for policy experimentation, strategic niche development, and coordinated governance that balances economic, social, and environmental objectives.

Our configurational framework also provides guidance for organisations navigating transitions between configurations. As enterprise-led disruptive innovations mature, they may evolve toward innovation ecosystem configurations as network effects become increasingly central to their value proposition. Similarly, successful innovation ecosystems may contribute to socio-technical system transformations when aligned with broader societal challenges. By recognising these potential evolutionary trajectories, organisations can develop anticipatory strategies that position them advantageously across different configurations.

5.6.4 Limitations and Future Research

While our configurational framework offers a more inclusive understanding of disruptive innovation, several limitations suggest directions for future research.

First, our conceptualisation provides a theoretical grounding that could be further enriched by systematic empirical validation across diverse contexts. Future studies should develop robust measures for each configuration and test their predictive validity in explaining disruptive outcomes, potentially using comparative case studies, longitudinal research designs, and mixed-methods approaches that capture the complex, multi-dimensional nature of disruptive innovation.

Second, while we identify how the evolved dimensional patterns manifest in each configuration, more research is needed to understand the mechanisms through which these patterns develop and interact. Research examining how innovation orchestration capability

emerges across different organisational arrangements, how boundary-spanning and value-system-spanning value creation processes unfold, or how organisations develop institutional fluidity to navigate complex institutional environments would provide valuable insights for both theory and practice. These mechanisms likely involve complex learning processes, institutional work, and strategic adaptation that deserve closer examination.

Third, our framework primarily focuses on the structural characteristics of disruptive configurations rather than the processes through which configurations emerge and transition. Future research should examine the evolutionary dynamics of disruptive innovation, particularly how and why transitions between configurations occur. For example, enterprise-led disruptive innovations might evolve toward innovation ecosystem configurations as they develop greater innovation orchestration capability and boundary-spanning value creation. Similarly, successful innovation ecosystems might contribute to socio-technical system transformations when aligned with broader societal challenges. Rather than viewing the three configurations as static categories, future research could examine them as dynamic patterns that evolve through different stages of maturity.

Fourth, the socio-technical system configuration introduces complex questions about how disruptive innovation functions across multiple institutional environments simultaneously. Future research should explore the governance challenges associated with coordinating disruptive innovation across public, private, and social sectors, particularly how to balance market dynamism with public accountability and social equity considerations. Research examining successful socio-technical system disruptive innovations could provide insights into effective governance mechanisms, policy frameworks, and coordination strategies for system-wide transformation.

Finally, our configurational approach raises important questions about the role of disruptive innovation in addressing grand societal challenges. Future research should investigate how disruptive innovation can contribute to sustainable development goals, climate action, social inclusion, and other complex challenges that require coordinated transformation across technological, commercial, social, and political domains. This line of inquiry could connect disruptive innovation theory with sustainability transitions research, potentially yielding new insights into how transformative change can be orchestrated to serve both commercial and societal objectives.

5.7 Conclusion

This paper introduces a configurational approach to disruptive innovation that addresses persistent limitations in how we understand this influential but contested concept. By identifying three distinct configurations – enterprise-led, innovation ecosystem, and socio-technical system – we offer a framework that accommodates diverse manifestations of disruptive innovation across organisational, market, and societal contexts while maintaining conceptual coherence. Rather than treating disruptive innovation as a uniform phenomenon with a singular trajectory, we reconceptualise it as a multifaceted process that unfolds through different patterns depending on context, scope, and objectives.

The configurational framework opens significant new pathways for future research that could transform both theory and practice. By viewing disruptive innovation through this configurational lens, we create conceptual space for a more nuanced understanding that acknowledges both the diversity and coherence of disruptive processes – ultimately enhancing our ability to harness its transformative potential in an increasingly complex and interconnected world.

CHAPTER 6: PAPER 3. ECOSYSTEM WORK – ENTREPRENEURIAL DIRECTION IN INNOVATION ECOSYSTEM EMERGENCE AND INTEGRATION: REGEN FARMERS MUTUAL, A CASE STUDY

Abstract

This paper advances understanding of entrepreneurial direction in innovation ecosystems by examining how entrepreneurs intentionally direct ecosystem emergence, development, and integration through concrete practices. This represents a fundamental shift from traditional entrepreneurship focused on individual competitive advantage to ecosystem entrepreneurship requiring orchestration of collaborative value creation across multiple autonomous actors. Despite growing scholarly attention to innovation ecosystems, theoretical perspectives remain fragmented across complementary approaches: structural (emphasising architectural design and alignment), evolutionary (focusing on emergent dynamics), multi-level (addressing cross-scale transitions), entrepreneurial learning (examining multi-level navigation mechanisms), and developmental stage models (mapping ecosystem progression). While recent work on distributed entrepreneurship recognises the collective nature of ecosystem development, these perspectives provide limited insight into the micro-level practices through which entrepreneurs actively shape ecosystem trajectories while simultaneously addressing structural configurations, evolutionary dynamics, and multi-level transitions.

Through an in-depth longitudinal study of Regen Farmers Mutual in Australia, we develop a process-oriented, practice-based model of ecosystem work. Ecosystem work is a purposeful and reflexive overarching process in which seven micro-practices – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – contribute to six directing processes: mobilising, architecting, manifesting, scaling, integrating, and embedding. Through these processes, entrepreneurs intentionally steer the emergence, development, and integration of innovation ecosystems across three developmental stages: ecosystem co-design, ecosystem co-development, and ecosystem readiness.

Our findings reveal how these practices evolve in sophistication across developmental stages, while simultaneously producing impacts at micro-, meso-, and macro-system levels. The ecosystem work model demonstrates how early investments in foundation-building enable accelerated development in later stages and how entrepreneurs navigate the complex temporal, relational, and structural dynamics of ecosystem development. Our research contributes to both theoretical advancement and practical guidance for orchestrating multi-actor innovation in service of addressing pressing societal, economic, and environmental challenges.

Keywords: innovation ecosystems, entrepreneurial direction, ecosystem work, process model, system leadership

6.1 Introduction

Innovation ecosystems have emerged as powerful organisational forms for addressing complex challenges and opportunities that exceed the capabilities of individual firms (Aarikka-Stenroos & Ritala, 2017; Adner, 2006, 2012, 2016; Adner & Kapoor, 2010, 2016; Jacobides et al., 2018; Kumaraswamy et al., 2018; Moore, 1993, 1996; Palmié et al., 2020). By enabling collaborative value creation among diverse, autonomous actors, these ecosystems have transformed industries ranging from technology to agriculture, mobility to energy (Ansari et al., 2016; Beltagui et al., 2020; Geels, 2018; Kivimaa & Rogge, 2022; Ma et al., 2018). As concerns about sustainability intensify, innovation ecosystems increasingly serve as vehicles for tackling complex grand challenges that require coordinated action across sectors, organisational boundaries, and governance levels (Geels, 2004; Jutting, 2022; Lazarevic et al., 2019; Russell & Smorodinskaya, 2018; Tan et al., 2020).

Despite growing scholarly attention to innovation ecosystems, theoretical perspectives remain fragmented across distinct but complementary approaches, with limited insight into the micro-level practices through which entrepreneurs shape ecosystem trajectories. Understanding entrepreneurial direction becomes particularly crucial because ecosystem entrepreneurship represents a fundamental departure from traditional entrepreneurial action – shifting from competitive to collaborative value creation and from individual to collective outcomes (Adner, 2016; Jacobides et al., 2018; Shane & Venkataraman, 2000). This transition requires new theoretical frameworks for understanding how entrepreneurs orchestrate multi-actor collaboration across traditional boundaries.

Existing research provides valuable but fragmented perspectives on innovation ecosystems. These include ecosystem-as-structure perspectives that emphasise architectural design and alignment (Adner, 2016; Jacobides et al., 2018), ecosystem-as-coevolution perspectives that focus on dynamic interactions and emergent processes (Breslin et al., 2021; Dattée et al., 2018), multi-level perspectives that examine transitions across system levels (Geels, 2002, 2004; Walrave et al., 2018), entrepreneurial learning perspectives that demonstrate multi-level navigation mechanisms (Khurana & Dutta, 2021), and developmental stage models that map ecosystem progression over time (Dattée et al., 2018; Moore, 1993; Thomas et al., 2022).

While these perspectives capture important dimensions of ecosystem development, they remain theoretically fragmented – each illuminating crucial aspects while missing the

connective tissue of entrepreneurial practice. Recent attempts to address these limitations, particularly distributed entrepreneurship approaches (Overholm, 2015), acknowledge the collective nature of ecosystem development and recognise cognitive limitations in complex systems (Wright & Clarysse, 2019), yet still stop short of specifying the concrete practices through which entrepreneurs construct, scale, and integrate ecosystems over time. This fragmentation points toward an integrative opportunity: entrepreneurial practices may serve as the missing link connecting these perspectives – simultaneously creating structures, guiding coevolution, bridging system levels, and enabling stage transitions.

Pursuing this integrative opportunity requires addressing a critical research question: *How do entrepreneurs intentionally direct innovation ecosystem emergence and integration through micro-level practices that simultaneously shape structural configurations, evolutionary dynamics, multi-level transitions, and developmental trajectories?* Understanding entrepreneurial direction becomes crucial for both theoretical advancement and practical application, as it reveals how human agency shapes complex multi-actor collaborative arrangements rather than treating ecosystems as purely emergent phenomena.

We investigate this question through an in-depth longitudinal study of Regen Farmers Mutual (RFM) in Australia – a particularly valuable case for examining these dynamics, as it involves entrepreneurial efforts to build a complex innovation ecosystem at the intersection of regenerative agriculture, conservation, natural resource management, environmental markets, and green finance. The RFM case allows us to witness first-hand the process of entrepreneurial ecosystem origination and emergence across multiple domains, requiring significant entrepreneurial work to create change in user and institutional practices across multiple system levels.

Through this study, we develop a process-oriented, practice-based model of ecosystem work – a purposeful and reflexive overarching process in which seven micro-practices work together through six directing processes to steer ecosystem emergence, development, and integration across three developmental stages. This ecosystem work represents a distinctive form of entrepreneurial direction that extends beyond traditional venture creation to encompass the orchestration of complex, multi-actor collaborative arrangements capable of addressing challenges that exceed individual organisational capabilities.

This paper makes three primary contributions to the innovation ecosystem literature.

First, it integrates previously fragmented theoretical perspectives by demonstrating how entrepreneurial practices simultaneously shape structural configurations, facilitate and direct coevolutionary processes, and operate across multiple system levels. By revealing how

entrepreneurs concurrently address structural alignment, evolutionary dynamics, and multi-level integration through coordinated practices and directing processes, our ecosystem work model offers a more holistic framework for understanding innovation ecosystem emergence, development, and integration.

Second, it provides a granular, practice-based understanding of how entrepreneurs intentionally direct innovation ecosystems, moving beyond conceptual and macro-level perspectives to illuminate the actual “entrepreneurial work” of ecosystem development. Our research specifies seven distinct micro-practices – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – and six directing processes – mobilising, architecting, manifesting, scaling, integrating, and embedding – that connect these practices to ecosystem-level outcomes. This process-oriented, practice-based understanding reveals ecosystem emergence as an ongoing accomplishment requiring deliberate entrepreneurial action rather than a purely emergent phenomenon.

Third, it reveals the temporal dynamics of ecosystem work, showing how early investments in foundation-building enable accelerated development in later stages. Our findings demonstrate a distinctive non-linear trajectory where the co-design stage requires extensive time investment (three years in the RFM case) involving relational work and conceptual development, followed by accelerated momentum in later stages. This temporal sophistication challenges conventional entrepreneurial approaches by demonstrating the strategic importance of patient, relational work in establishing the conditions for subsequent scaling and integration.

Section 2 of this paper examines the theoretical foundations that inform the investigation and the critical gaps that ecosystem work addresses. Section 3 describes the methodology, including case selection, data collection, and analytical approach. Section 4 presents the process model of ecosystem work, defining the seven micro-practices and six directing processes that constitute entrepreneurial direction in ecosystem development. Section 5 presents detailed findings from the RFM case, examining how ecosystem work manifested across three developmental stages and generated multi-level impacts. Section 6 discusses our theoretical contributions, practical implications, and future research directions. Section 7 concludes by highlighting how ecosystem work provides both theoretical coherence and practical guidance for orchestrating multi-actor innovation to address complex challenges.

6.2 Theoretical Background: Entrepreneurial Direction of Innovation Ecosystems

Understanding how entrepreneurs direct innovation ecosystem development requires examining the theoretical foundations that inform both ecosystem dynamics and

entrepreneurial action. While innovation ecosystems have demonstrated remarkable capacity for addressing complex challenges across diverse sectors (Ansari et al., 2016; Beltagui et al., 2020; Geels, 2018; Kivimaa & Rogge, 2022; Ma et al., 2018), theoretical perspectives on how entrepreneurs actively shape these ecosystems remain fragmented and incomplete.

The transition from traditional entrepreneurship – focused on individual venture creation and competitive advantage – to ecosystem entrepreneurship represents a fundamental reconceptualisation of entrepreneurial action (Shane & Venkataraman, 2000). Ecosystem entrepreneurs must orchestrate value creation across multiple autonomous actors, coordinate without hierarchical control, and navigate complex multi-level dynamics (Adner, 2016; Jacobides et al., 2018). Yet despite growing recognition of entrepreneurship's role in ecosystem development, we lack integrated frameworks that explain how entrepreneurs translate their agency into concrete practices that simultaneously shape structures, guide evolution, and bridge system levels.

This theoretical gap becomes particularly acute as ecosystems increasingly serve as vehicles for addressing grand challenges requiring coordinated action across traditional boundaries (Geels, 2004; Jutting, 2022; Lazarevic et al., 2019; Russell & Smorodinskaya, 2018; Tan et al., 2020). Without understanding the specific mechanisms through which entrepreneurs direct ecosystem emergence, we miss crucial opportunities to support and scale collaborative innovation capable of generating transformative impact.

6.2.1 From Traditional to Ecosystem Entrepreneurship: A Fundamental Shift

In this context, the transition from traditional to ecosystem entrepreneurship represents a fundamental reconceptualisation of entrepreneurial action. Traditional entrepreneurship focuses on individual ventures creating value through competitive advantage (Shane & Venkataraman, 2000). In contrast, ecosystem entrepreneurship requires orchestrating value creation across multiple autonomous actors collaborating to realise shared value propositions (Adner, 2016; Ansari et al., 2016; Autio & Thomas, 2014; Jacobides et al., 2018; Kumaraswamy et al., 2018; Nambisan & Baron, 2013; Overholm, 2015). This shift aligns with Alvarez and Barney's (2007) creation perspective, where opportunities are not discovered but created through entrepreneurial action under uncertainty – a condition amplified in ecosystem contexts where outcomes depend on multiple actors' interdependent choices.

Innovation ecosystems' distinctive features – distributed participation, non-hierarchical governance, and fluid boundaries – place unique demands on entrepreneurs that differ markedly from traditional settings (Nambisan & Baron, 2013). While traditional entrepreneurs maintain direct control over key resources, ecosystem entrepreneurs must influence and align

actors through persuasion, shared vision, strategic framing, and mutual benefit rather than hierarchical authority (Ansari et al., 2016). This shift from competitive to collaborative value creation, from control to coordination, and from individual to collective outcomes fundamentally alters the nature of entrepreneurial direction.

Also, the traditional cognitive perspective of entrepreneurship reveals significant limitations when applied to innovation ecosystems. As Wright and Clarysse (2019) note, entrepreneurs may lack sufficient cognitive variety to identify new technology-market combinations, and predicting technology evolution and social acceptance becomes problematic since acceptance is socially constructed by entrepreneurs themselves. This critique highlights how ecosystem complexity exceeds individual cognitive capabilities, requiring engagement with broader social factors and stakeholder influences. These limitations suggest that understanding ecosystem entrepreneurship requires new theoretical frameworks that account for distributed agency, collective sensemaking, and multi-actor coordination.

6.2.2 Current Perspectives on Innovation Ecosystems

Existing research provides multiple theoretical lenses for understanding innovation ecosystems, yet these perspectives remain fragmented with limited insight into entrepreneurial direction. We examine five complementary approaches – structural, coevolutionary, multi-level, learning-based, and developmental – exploring too how the concept of distributed entrepreneurship attempts to address their collective limitations. This examination reveals both the insights each perspective offers and the critical gaps that remain in understanding how entrepreneurs actively shape ecosystem emergence through concrete practices.

The ecosystem-as-structure perspective conceptualises innovation ecosystems as alignment structures characterised by deliberate architectural design and configured roles (Adner, 2016; Jacobides et al., 2018). Adner (2016) defines ecosystems as “the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialise.” Jacobides et al. (2018) extend this view by identifying complementarities and modularity as structural features enabling coordination without hierarchical control.

While illuminating architectural foundations, this perspective presents a fundamentally static view. Value propositions and alignment structures appear as preexisting conditions rather than emergent outcomes of entrepreneurial action (Dattée et al., 2018; Hou & Shi, 2021). The social and political dimensions of ecosystem creation remain unexplored, providing blueprints for established ecosystems but limited guidance for navigating co-creation processes.

The ecosystem-as-coevolution perspective views ecosystems as complex adaptive systems characterised by dynamic actor interactions (Breslin et al., 2021; Dattée et al., 2018). This approach positions value proposition discovery as an emergent process, capturing the non-linear nature of ecosystem development. Breslin et al. (2021) advance this view by examining how system-level patterns emerge from micro-level coevolutionary interactions, with interaction rules providing mechanisms for understanding agency. Despite foregrounding emergent patterns and systemic properties, this perspective offers limited insight into how entrepreneurs actively shape collective discovery while maintaining strategic direction.

The Multi-Level Perspective (MLP) from transition studies provides a framework for understanding how entrepreneurs work across micro (niche), meso (regime), and macro (landscape) levels to embed innovation ecosystems within established systems (Geels, 2002, 2004; Schot & Geels, 2008; Walrave et al., 2018). Entrepreneurs nurture niche innovations in protected spaces, engage with socio-technical regimes, and respond to landscape developments that create windows for system change.

Walrave et al. (2018) extend this framework by distinguishing between “internal alignment” (creating ecosystem coherence) and “external viability” (overcoming regime resistance). They identify specific “objects of manipulation” – the ecosystem value proposition and business model – that entrepreneurs employ to enhance both internal coherence and external legitimacy. However, these perspectives provide limited insight into the micro-level entrepreneurial activities driving these transitions, focusing more on structural levels than on the practices enabling movement between them.

Recent advances in *entrepreneurial learning theory* offer promising insights that directly address the MLP’s limitations. Khurana and Dutta (2021) demonstrate that entrepreneurial learning in innovation ecosystems operates as a multi-level process spanning individual, organisational, interorganisational, and systemic levels. Their longitudinal study of the US drone industry reveals how entrepreneurs navigate ecosystem emergence through situated, dynamic learning processes embedded in stakeholder relations.

This *multi-level learning perspective* provides the missing mechanism for understanding how entrepreneurs develop capabilities to work across the structural levels identified by the MLP. First, it explains how entrepreneurs overcome cognitive limitations through collective sensemaking with diverse stakeholders. Second, it reveals how learning facilitators – prior experience, information exchange, and stakeholder interaction – enable entrepreneurs to shape ecosystem trajectories across multiple levels simultaneously.

Particularly significant is the finding that entrepreneurial learning can drive policy-level change, as demonstrated when collective learning led to the FAA Reauthorization Act of 2018.

The temporal dimension – progressing from single-loop to double-loop learning as ecosystems mature – indicates how entrepreneurial practices evolve in sophistication across developmental stages. This learning perspective thus bridges the MLP’s structural framework with processual understanding, showing how entrepreneurs develop the relational and social capabilities necessary for multi-level ecosystem navigation through recursive cycles of action and reflection.

Developmental stage models outline distinct phases of ecosystem development, each with specific processes and patterns (Dattée et al., 2018; Moore, 1993, 1996; Thomas et al., 2022). Table 4 synthesises three influential models, revealing complementary yet distinct frameworks.

Table 4

Comparative Analysis of Ecosystem Stage Models (Source: Author of this thesis)

Author(s)	Stage 1	Stage 2	Stage 3	Stage 4	Focus & Limitation
Moore (1993, 1996)	Birth Cooperative discovery of value proposition and commitment to collective business structure	Expansion Market demand stimulation, territory broadening, and competition with other ecosystems	Leadership Ecosystem investments, technical direction-setting, and maintaining bargaining power	Renewal or Death Tracking threats, developing renewal capacity, balancing stability with innovation	Focus: Market dynamics and competitive positioning Limitation: Describes what happens but not how entrepreneurs drive transitions
Dattée et al. (2018)	Protovision Collective discovery through mutual engagement and increasing commitment	Blueprint Managing feedback loops, shaping and clarifying ecosystem structure	Enacting Resonance I Increasing actor resonance, path dependency, and uncertainty reduction	Dynamic Control Managing strategic value points as ecosystem evolves	Focus: Uncertainty management and collective discovery Limitation: Describes patterns but not entrepreneurial practices enabling transitions
Thomas et al. (2022)	Launch Orchestrator conceptualisation, prototype development, and value proposition discovery	Expansion Growth via network effects, establishing rules and governance processes	Established Legitimacy achievement and embedding in wider societal context	<i>Not specified in model</i>	Focus: Platform ecosystems and governance evolution Limitation: Focuses on structural evolution without specifying entrepreneurial practices

Moore’s model emphasises market dynamics across four evolutionary stages. Thomas et al. (2022) focus on platform governance progression from informal to formal structures. Dattée et al. (2018) highlight uncertainty reduction as ecosystems mature. While these models

effectively map ecosystem life cycles, they collectively fail to identify the concrete entrepreneurial activities driving stage transitions – particularly the micro-level practices through which entrepreneurs establish value propositions, form partnerships, and develop governance structures.

As Thomas et al. (2022) observe, bottom-up development dynamics create increasingly differentiated evolutionary paths. This insight underscores the limitations of existing perspectives in explaining the unique micro-practices entrepreneurs employ throughout ecosystem development and how these may determine innovation ecosystem emergence and integration.

Distributed Entrepreneurship and Collective Action. Recognising the limitations of individual-centric approaches, Overholm (2015) conceptualises entrepreneurship in new energy ecosystem contexts as inherently distributed. Through an in-depth study of solar service ventures in Sweden’s emerging energy ecosystem, Overholm demonstrates how entrepreneurs not only pioneer new ecosystem configurations but also capitalise on opportunities shaped by others’ ecosystem work. This distributed view emerges from examining how solar entrepreneurs built upon previous work by environmental movement activists, policy entrepreneurs, and technology developers who had collectively created the conditions for solar service venture emergence.

Through their collective efforts across the new energy ecosystem, entrepreneurs create what Overholm terms “cognitive traces” and “practical traces” that enable subsequent entrepreneurial action. *Cognitive traces* represent conceptual blueprints for collaboration—shared mental models, problem definitions, and solution frameworks that become embedded in the ecosystem’s collective understanding. In the solar energy context, these included new ways of thinking about energy as a service rather than a commodity, conceptual frameworks for distributed energy generation, and shared understandings of how residential solar could integrate with existing grid infrastructure. *Practical traces* constitute networks of educated, ecosystem-ready partners – organisations, institutions, and individuals with developed capabilities and established relationships that subsequent entrepreneurs can leverage. These included installation companies with solar expertise, financing institutions familiar with solar economics, regulatory bodies with developed solar policies, and consumer segments educated about solar benefits.

The traces concept reveals how ecosystem entrepreneurship operates through accumulative processes where early entrepreneurial efforts create resources – both cognitive and practical – that reduce barriers and enhance opportunities for subsequent entrepreneurs.

Solar service entrepreneurs could build upon existing installer networks (practical traces) and established consumer awareness of solar benefits (cognitive traces) rather than creating these from scratch. This distributed dynamic creates positive feedback loops where each entrepreneurial success strengthens the ecosystem's capacity to support additional entrepreneurial ventures.

This distributed view suggests ecosystem development occurs through collective processes where multiple entrepreneurs build upon each other's contributions. It addresses the cognitive limitations identified by Wright and Clarysse (2019) by showing how ecosystem entrepreneurship transcends individual capabilities through collective action. However, while acknowledging this distributed nature, Overholm's work stops short of specifying how entrepreneurs actively construct, scale, and integrate ecosystems through concrete practices.

6.2.3 The Opportunity: Understanding Entrepreneurial Practices in Ecosystem Work

As Table 5 illustrates, while these theoretical advances illuminate important aspects of innovation ecosystems, they remain fragmented – each capturing crucial dimensions while possibly missing the connective tissue of entrepreneurial practice. The structural perspective explains what must be aligned but not how entrepreneurs achieve alignment. The coevolutionary perspective reveals emergent dynamics but obscures intentional direction. The MLP maps system connections but underspecifies micro-level navigation. Stage models chart temporal progression but lack practice specificity. Even entrepreneurial perspectives, while acknowledging distributed action and learning, stop short of specifying concrete practices.

This fragmentation points toward an integrative opportunity. Entrepreneurial practices may serve as the missing link connecting these perspectives – simultaneously creating structures, guiding coevolution, bridging system levels, and enabling stage transitions. By examining how entrepreneurs translate multi-level learning into concrete practices, we can move beyond viewing these as separate theoretical lenses toward understanding them as complementary dimensions of a unified phenomenon.

Table 5

Concept Matrix: Entrepreneurial Direction in Innovation Ecosystem Perspectives (Source: Author of this thesis)

Perspective	Key Authors	Key Concepts	Treatment of Entrepreneurial Direction
Ecosystem-as-Structure	Adner (2016) Jacobides et al. (2018) Hou & Shi (2021)	Alignment structures Value propositions Architectural design Configured roles Affiliation mechanisms	Strong on <i>what</i> structures require Weak on <i>how</i> entrepreneurs establish structures Minimal attention to social and political processes Treats value propositions as predetermined Hou & Shi (2021) begin to bridge structure and process through “affiliation”
Ecosystem-as-Coevolution	Breslin et al. (2021) Dattée et al. (2018) Moore (1993, 1996) Thomas et al. (2022)	Complex adaptive systems Dynamic interactions Emergent processes Interaction rules Modes of coevolution Micro-foundational view	Strong on evolutionary dynamics Weak on intentional direction Breslin et al. (2021) position entrepreneurial actions as central to changing “modes of coevolution” Underemphasises strategic direction Focuses on emergence over deliberate action
Multi-Level Perspective	Geels (2002, 2004, 2018) Schot & Geels (2008) Walrave et al. (2018)	Niche innovations Socio-technical regimes Landscape developments Internal alignment External viability Objects of manipulation	Strong on system-level connections Weak on micro-level practices Walrave et al. (2018) identify “objects of manipulation” (value proposition, business model) Underspecifies how entrepreneurs manage tensions between internal alignment and external viability
Entrepreneurial Learning Perspective	Khurana & Dutta (2021) Cope (2005) Politis (2005)	Multi-level learning Learning facilitators Single/double-loop learning Policy-level learning Relational learning	Strong on learning as navigation mechanism Demonstrates multi-level learning processes Shows how learning drives policy change Does not specify practices through which learning translates to ecosystem direction
Developmental Stage Models	Moore (1993, 1996) Dattée et al. (2018) Thomas et al. (2022)	Ecosystem lifecycle stages Temporal frameworks Stage-specific challenges Evolutionary paths Bottom-up development dynamics	Strong on temporal progression Weak on stage-specific entrepreneurial practices Thomas et al. (2022) note micro-level activities create differentiated paths Limited attention to how entrepreneurs drive stage transitions
Entrepreneurial Perspective	Overholm (2015) Nambisan & Baron (2013) Autio & Thomas (2014) Wright & Clarysse (2019)	Cognitive traces Practical traces Opportunity creation Collective entrepreneurship Self-regulatory processes Cognitive variety limitations	Strong on entrepreneurial direction Acknowledges distributed nature of ecosystem entrepreneurship Wright & Clarysse (2019) highlight cognitive limitations in complex systems Limited specification of concrete entrepreneurial practices

Such an integrated framework would reveal how micro-level entrepreneurial practices generate macro-level ecosystem outcomes. It would specify the mechanisms through which individual agency combines with collective dynamics, how strategic intention interacts with emergent patterns, and how temporal progression unfolds through deliberate yet adaptive action. Most importantly, it would demonstrate that entrepreneurial direction represents not just another perspective, but the integrative force that connects structural, evolutionary, multi-level, and temporal dimensions of ecosystem development.

This concept matrix reveals a critical pattern: while each perspective captures important dimensions, none provides the integrated understanding needed to guide entrepreneurial action. The practices through which entrepreneurs simultaneously create structures, guide evolution, bridge levels, and enable transitions remain unspecified.

To develop this integrated understanding, we pose the research question: *How do entrepreneurs intentionally direct innovation ecosystem emergence and integration through micro-level practices that simultaneously shape structural configurations, evolutionary dynamics, multi-level transitions, and developmental trajectories?*

We investigate this question through an in-depth longitudinal study of Regen Farmers Mutual (RFM) in Australia – a particularly valuable case examining entrepreneurial efforts to build a complex innovation ecosystem at the intersection of regenerative agriculture, conservation, natural resource management, environmental markets, and green finance. From this study, we develop a process-oriented, practice-based model that reveals how entrepreneurial practices serve as the integrative mechanism connecting previously fragmented theoretical perspectives, offering both theoretical advancement and practical guidance for ecosystem development.

6.3 Data and Method

To understand how entrepreneurs intentionally direct innovation ecosystem emergence, development, and integration, we conducted in-depth longitudinal qualitative process research (Langley, 1999; Langley & Montréal, 2007; Langley et al., 2013; Phillips & Ritala, 2019) examining the entrepreneurial activities that shaped Regen Farmers Mutual (RFM) in Australia.

6.3.1 Case Selection and Description

We selected Regen Farmers Mutual (RFM) because it presented a unique opportunity to examine entrepreneurial ecosystem work in action. Regen Farmers Mutual (RFM) is Australia's leading farmer-owned cooperative dedicated to profitable regenerative agriculture. Established in 2021, RFM serves as a broker and platform connecting farmers with emerging

environmental markets, including carbon credits and biodiversity payments. The organisation helps farmers aggregate their market power, create digital twins of their properties through their Regen Digital platform, and participate in landscape-scale environmental initiatives that would be inaccessible to individual producers. By enabling farmers to capture and monetise the environmental benefits of regenerative practices, RFM creates both economic sustainability for farmers and environmental regeneration across Australian landscapes.

The RFM case was particularly valuable because it allowed us to witness first-hand the process of entrepreneurial ecosystem origination and emergence at the intersection of multiple domains – regenerative agriculture, conservation, natural resource management, environmental markets, sustainability reporting, and green finance. This complexity required significant entrepreneurial work to create change in user and institutional practices across multiple levels. RFM’s distinctive approach – prioritising farmer ownership, landscape-scale integration, and high-integrity environmental outcomes – represents a disruptive alternative to conventional environmental market models that typically position farmers as passive participants rather than central system innovators.

RFM’s innovation ecosystem comprises three interconnected components: (1) the Mutual itself, which provides governance oversight and collective farmer representation; (2) Landscape Impact Programmes (LIPs), which coordinate landscape-scale regeneration initiatives across multiple properties; and (3) Regen Digital, a technology platform that enables environmental asset assessment, verification, and market transactions.

RFM exemplifies how entrepreneurs can intentionally direct innovation ecosystem emergence through strategic micro-level practices. Its founders identified a market failure in environmental services for farmers and deliberately constructed an organisational architecture that bridges scales – implementing specific practices like digital farm twins and local advisor training at the micro-level while choosing a cooperative structure that shapes macro-level ecosystem dynamics. By embedding democratic governance principles and creating a “thin” organisation that leverages “deep” local infrastructure, RFM established conditions for collaborative behaviour and ecosystem integration rather than building a traditional hierarchical company.

The RFM case reveals that successful ecosystem direction comes not through control but through strategic architecture that shapes interactions. Their LIPs methodology deliberately starts with small clusters of 10 farmers before expanding to 20, then 100+ across regions, allowing for refinement of coordination mechanisms and value creation approaches before wider deployment. By designing digital infrastructure connecting individual farms to

landscape-level outcomes, creating governance mechanisms reinforcing collaborative behaviour, and implementing staging strategies enabling cross-regional learning, RFM demonstrates how entrepreneurs can meticulously design micro-level practices to define emergent macro-level processes in an innovation ecosystem.

Led by two entrepreneurs with complementary backgrounds in finance, conservation, regenerative agriculture, and cooperative development, RFM represented a case where entrepreneurial direction was clearly directing the emergence of a complex innovation ecosystem (Eisenhardt, 2018; Yin, 2018). While one co-founder brought extensive experience in conservation, regenerative agriculture, and cooperative development, the other co-founder contributed financial expertise, market design knowledge, institutional connections and shared cooperative development experience. This complementary leadership enabled RFM to bridge typically disconnected domains – connecting farmer-level practices with institutional capital flows and policy frameworks.

RFM's position as a pioneer in integrating farmer-led governance with environmental markets and digital technologies makes it a robust case for addressing our research question on how entrepreneurs intentionally direct innovation ecosystem emergence and integration. The clear entrepreneurial direction, novel multi-domain integration, and documented system-level impacts make RFM an ideal setting for developing a process model of entrepreneurial ecosystem work that can inform both theory and practice.

6.3.2 Data Collection and Triangulation

Our data collection focused on capturing both the entrepreneurial activities and their ecosystem impacts through multiple sources. Direct observation of RFM began in April 2023, meaning that data from 2020 to early 2023 were collected retrospectively. To reduce retrospective bias and ensure reliable historical reconstruction, we implemented a rigorous triangulation strategy using diverse data sources and perspectives.

For the retrospective period (2020 to early 2023), we systematically triangulated multiple historical data sources. We examined comprehensive archival data including RFM's website, chronologically organised published materials, press releases, and RFM's YouTube channel, which had documented the entrepreneurs' outreach efforts, co-design processes, pilot outputs, Annual General Meetings, and farmer engagements since inception. These contemporaneous records provided critical time-stamped evidence of key activities and decisions, reducing reliance on memory-based accounts.

To further mitigate retrospective bias, we conducted 25 semi-structured interviews not only with RFM's co-founder entrepreneurs but also with farmers and steering committee

members, and key actors in the field who had engaged with RFM throughout different developmental periods. By interviewing diverse stakeholders who had participated in or observed RFM's evolution from different vantage points, we could cross-validate accounts of key events, decisions, and their chronology.

Table 6

Overview of RFM Evidence Set (Source: Author of this thesis)

Primary data		Secondary data	
Phase 1		Ongoing	
Initial orientation interview mid-2023	RFM co-founder	RFM YouTube channel	RFM Influencer Presentations Co-design workshops of Regen Farmers Mutual and cohort LIPs AGM meetings Specialist Masterclasses Farmer success stories Outputs of LIPs by cohort Media conversations
15 interviews mid to end 2023	(3) RFM co-founders & CTO (6) Steering committee members and lead farmers (1) Natural Resource Management (NRM) CEO (1) Australian Farmers Institute CEO (1) Academic researcher – case orientation (2) Agronomist/consultant (1) LIPs Partner – Landscape Finance Lab	RFM website	RFM co-founder posts and those of people interviewed – following the conversation with actors across field of interest
Trading in Regen Conference August 2023	Attendance of and access to video recordings and transcripts of all talks	Press releases	
Phase 2		Government, Sustainability Reporting, and Industry websites and nature-positive reports and publications	
3 follow-up interviews after initial data analysis and coding in 2023	With RFM co-founders and steering committee member to test insights and understanding	Published papers and reports on regulatory environment, Landcare and NRM, and environmental markets in Australia	
6 progress interviews in 2024/25	RFM co-founders		
Phase 3			
Detailed review of paper and findings	Performed by Co-Founder and member of Members Council	Studying of the new comprehensive RFM website	

For the period of direct observation (April 2023 onwards), we supplemented interviews with attendance at key events, including the RFM Trading in Regen Conference in August

2023. We studied video recordings and transcripts from this event to capture how the entrepreneurs were positioning their initiative within the broader landscape. We also followed LinkedIn posts, the RFM YouTube channel, and social media communications of key actors, webinars and co-design workshops, to track ongoing developments and public discourse around RFM's activities. Toward the end of this study, RFM had significantly revamped their website to more fully represent RFM and its offering – which also provided a source of reflection on their journey and how far they had come.

This multi-layered approach to data collection and triangulation allowed us to construct a reliable chronology of RFM's development from inception through to our study's conclusion in May 2025. Our interview protocol sought to understand not only what ecosystem structures emerged but the specific entrepreneurial actions that shaped them.

6.3.3 Analytical Approach and Process Model Development

Our analysis combined three complementary approaches to process research (Langley, 1999; Phillips & Ritala, 2019): narrative analysis, temporal bracketing, and visual mapping. Through narrative analysis, we constructed detailed accounts of entrepreneurial activities, decisions, reconfiguring events (Lampel & Meyer, 2008), and strategies from participant interviews. This approach provided rich descriptions of concrete, observable actions that constitute ecosystem work, ultimately leading to the identification of seven distinct micro-level activities and six directing processes that form the core of our process model.

Using temporal bracketing, we decomposed the data into successive periods where entrepreneurial activities noticeably shifted in focus, sophistication, and formalisation. This enabled us to delineate three developmental stages that encompass six distinct directing processes. The co-design stage emerged from our analysis of initial entrepreneurial actions (approximately 2020-2023), encompassing three processes focused on foundational elements of RFM. The ecosystem co-development stage became evident with a clear shift toward scaling and integrating practices (2024-2025). The ecosystem readiness stage materialised as entrepreneurial practices secured a full ecosystem offering and emphasised standardisation and institutional embedding (2025). Our study concluded at the start of the ecosystem readiness stage (May 2025).

Through visual mapping, we traced how entrepreneurial activities evolved across the timeline of RFM's development while simultaneously capturing their multi-level impacts. This approach allowed us to identify interconnections between micro-level activities and their meso- and macro-level effects, revealing the integrative nature of ecosystem work across system levels.

Throughout this iterative and abductive process, we continuously moved between data, emerging concepts, and existing theory to develop our integrated process model. The combination of these three approaches enabled us to capture both the temporal dynamics and the multi-level complexity of entrepreneurial ecosystem work.

Our analysis took place over two years, continuously refining our understanding of entrepreneurial ecosystem work as the RFM initiative evolved, until we reached theoretical saturation. Through this methodological approach, we were able to identify and analyse the specific practices and directing processes through which entrepreneurs intentionally shape innovation ecosystem emergence, development, and integration across multiple levels simultaneously, contributing a more granular understanding of entrepreneurial direction in ecosystem development.

From Data to Theory: The Coding Process. Our analysis employed an abductive approach, iteratively moving between empirical data and theoretical concepts to develop the ecosystem work framework. This process unfolded through five distinct analytical phases.

Phase 1: Open Coding and Initial Pattern Recognition. We began with open coding of interview transcripts, archival documents, and observational notes, identifying concrete entrepreneurial activities without imposing predetermined categories.

Phase 2: Categorising into Micro-Practices. We then grouped these first-order codes into higher-order categories based on their underlying purpose and function. This process yielded seven distinct micro-practices driving ecosystem development (cf. Table 7). We validated these categories by returning to the data to confirm empirical distinction.

Table 7

Coding Table - Seven Micro-Practices (Source: Author of this thesis)

Micro-practice	Dimension	Code	Description
Framing	Projective framing	Alternative value logic	Challenging dominant market paradigms and articulating new value creation models
		Economic-environmental integration	Positioning regenerative practices as both environmentally necessary and economically viable
		Market clarity	Cutting through market confusion to provide clear value propositions
		Scalable solutions	Framing the approach as replicable and transferable
	Reflective reframing	Scope evolution	Expanding conceptual boundaries based on stakeholder engagement
		Stakeholder alignment	Managing diverse perspectives while building common vision

Micro-practice	Dimension	Code	Description
	Framing processes	Monetisation discovery	Evolving understanding of how to create economic value from existing practices
		Co-facilitation	Using dialogue and engagement as framing mechanism
		Vision building	Creating shared understanding at multiple scales
		Continuous refinement	Iterative development through ongoing engagement
Co-creator recruitment	Structural mechanisms	Institutionalised participation	Embedding co-creator status through ownership structures
	Co-creator architecture	Thin-deep model	Lean central organisation leveraging local infrastructure
		Distributed capability	Recruitment of existing local organisations as infrastructure
	Social infrastructure	Scale-dependent building	Recognition that larger projects require larger social networks/infrastructure
		Core alignment network	Creating tight-knit group of aligned collaborators
	Recruitment dynamics	Values-based self-selection	Natural gravitation based on resonance with vision
		Reciprocal engagement	Creating automatic sense of belonging and contribution
		Open transaction model	Enabling neighbouring farmers to join existing transactions
	Transformation support	Mindset shift recognition	Acknowledging the fundamental change required
		Transition facilitation	Providing support for overwhelming change process
	Multi-stakeholder integration	Aggregation for influence	Building collective bargaining power with institutions
		Staged multi-sided engagement	Systematic introduction of diverse stakeholders at strategic points
	Process design	Temporal sequencing	Strategic timing of when different co-creators are brought in
		Multi-level recruitment	Recruiting actors across system levels
Evidencing	Milestone events	Conference as turning point	Major gatherings that demonstrate ecosystem credibility and reach
	Continuous demonstration	Digital artefacts	Platform features and success stories providing ongoing evidence
		Quantified outcomes	Measurable impacts like carbon sequestration and hectares managed
	Strategic communication	Narrative evolution	Shifting conversations from possibility to implementation
		Success story amplification	Using individual achievements to demonstrate broader potential
	Policy influence	Government recognition	Policy changes reflecting ecosystem approach effectiveness

Micro-practice	Dimension	Code	Description
	Scale evidence	Funding structure shifts	Changes in grant allocation from individual to group focus
		Geographic expansion	Multiple landscape-scale transactions across regions
		Membership growth	Increasing numbers of participants and projects
Co-design	Embedded philosophy	Pervasive approach	Co-design as fundamental ethos across all activities
		Cultural foundation	Establishing farmer-led, ground-up organisational culture
	Structural co-design	Member council development	Collaborative creation of governance structures
		Digital twin design	Farmer participation in platform development
	Process co-design	Stakeholder integration	Using collaborative tools to capture diverse perspectives
		Transparent development	Open and inclusive design processes
	Continuous practice	Phase-independent	Co-design continuing across all developmental stages
		Community-based solutions	Working with communities on landscape-specific needs
Value exchange design	Data value creation	Environmental claims	Helping farmers prove and monetise environmental outcomes
		Verified credentials	Creating audit trails for environmental certificates
	Transaction architecture	Open collective transactions	Designing mechanisms for landscape-scale participation
		Supply chain integration	Connecting environmental data to supply chain requirements
	Financial mechanisms	Equitable distribution	80-10-10 model ensuring farmer value retention
		Corporate-farmer bridging	Linking offset needs with regenerative outcomes
	Multi-layer solutions	Project management tools	Integrated systems for data, visualisation, and verification
		Strategic partnerships	Collaborating with financial institutions and research centres
	Market development	Blueprint creation	LIP outcomes creating templates for future transactions
		Standards alignment	Responding to sustainability reporting requirements
Configuring	Technical infrastructure	Platform architecture	Building GREG AI and integrated digital tools
		Open source foundation	Using distributed technology for innovation
	Process standardisation	LIP methodology	Creating repeatable processes for Landscape Impact Programmes
		Cost optimisation	Reducing programme costs through tool development
	Data integration	Farm story generation	Automated creation of compelling farm narratives
		Multi-tool synthesis	Combining disparate elements for greater impact

Micro-practice	Dimension	Code	Description
Instituting	System connectivity	Cross-stakeholder tools	Platforms connecting farmers, buyers, and institutions
		Distributed innovation	Enabling ecosystem-wide development
	Governance structure	Democratic control	One member, one vote regardless of contribution
		Constitutional foundation	Ten principles guiding operations
	Legal architecture	Company limited by guarantee	Formal structure ensuring member protection
		Member council	Institutionalised member voice in operations
	Scaling mechanisms	Template development	Converting pilot learnings into replicable models
		Peer compliance	Natural accountability mechanisms within landscape groups
	Empowerment systems	Landscape investment	Institutionalising support for local capacity
		Value distribution	Formalising benefit sharing arrangements

The coding framework presented in Table 6 reveals several critical patterns in how these seven micro-practices function within the ecosystem work model. Co-design emerges as both a distinct practice with specific activities and a meta-practice that permeates all other practices, reflecting its dual nature as both method and philosophy. Each practice demonstrates progressive sophistication across developmental stages, evolving from exploratory implementations in early stages to standardised and optimised approaches in later stages. The practices exhibit strong mutual reinforcement, where advances in one practice amplify the effectiveness of others – for instance, evidencing activities validate and strengthen framing narratives, while successful co-creator recruitment enables more robust co-design processes. Notably, all practices operate simultaneously across micro, meso, and macro levels, demonstrating the inherently multi-level nature of ecosystem work. Finally, the practices display temporal layering, where investments in foundational practices during early stages create compound effects that accelerate development in subsequent stages, explaining the non-linear trajectory observed in the RFM case where extensive early relational work enabled rapid scaling once foundations were established

Phase 3: Identifying Directing Processes. Through temporal analysis, we observed that micro-practices combined in specific configurations to achieve broader developmental objectives. By mapping how practices clustered during different periods and examining their collective outcomes, we identified six directing processes. For instance, the combination of Framing and Co-creator Recruitment in early stages consistently aimed at building momentum and shared vision, which we termed the “mobilising” process. Each directing process

represented a coherent pattern of practices working toward specific ecosystem development goals (cf. Table 8).

Table 8

Micro-Practices Contributing to Directing Processes (Source: Author of this thesis)

Directing Process	Stage	Contributing Practices	How Practices Manifest in Process	Primary Outcomes
MOBILISING	Co-design	Framing Co-creator recruitment	Framing: Articulating alternative value logic; positioning regenerative agriculture as economically viable; building shared vision Co-creator Recruitment: Values-based self-selection; building core alignment network; establishing “five best friends” collaborative core	Conceptual foundation established Social infrastructure created Directional momentum built Initial community of aligned actors assembled
ARCHITECTING	Co-design	Co-design Value exchange design Configuring Instituting	Co-design: Member Council development; collaborative governance creation; stakeholder workshops Value Exchange Design: 80-10-10 model creation; environmental claims methodology; open collective transaction design Configuring: Platform architecture planning; LIP methodology development; technical infrastructure design Instituting: Democratic control structures; constitutional foundation; company limited by guarantee establishment	Governance structures established Value distribution mechanisms created Technical blueprints developed Legal entity formalised Traprock LIP prototype launched
MANIFESTING	Co-design	Evidencing Framing Co-Creator recruitment	Evidencing: Trading in Regen conference; quantified outcomes (30 000 tonnes CO ₂); digital artefacts creation Framing: Narrative evolution from possibility to implementation; continuous refinement based on evidence	Proof of concept demonstrated External credibility established Expanded stakeholder engagement Transition readiness achieved

Directing Process	Stage	Contributing Practices	How Practices Manifest in Process	Primary Outcomes
			Co-creator Recruitment: Multi-stakeholder integration; strategic timing of institutional partners (Australian National University (ANU), AFI, CTO recruitment)	
SCALING	Co-development	Co-design Co-creator recruitment Value exchange design Configuring Instituting	Co-design: Cohort LIP model across 6 bioregions; community-based solutions; phase-independent continuation Co-creator Recruitment: Multi-level recruitment across regions; staged multi-sided engagement Value Exchange Design: Blueprint creation for replication; standards alignment with Taskforce on Nature-related Financial Disclosures (TNFD) Configuring: Cost optimisation through tools; process standardisation; LIP methodology refinement Instituting: Template development; peer compliance mechanisms	6 landscape-scale transactions Multi-regional presence Standardised but adaptive processes Economies of scale achieved
INTEGRATING	Co-development	Co-creator recruitment Co-design Value exchange design Configuring Instituting	Co-creator Recruitment: Aggregation for institutional influence; bringing in investors, corporates, policy actors Co-design: Supply chain verification frameworks with AFI/Go Source; environmental credit methodologies with ANU Value Exchange Design: Corporate-farmer bridging mechanisms; supply chain integration; financial mechanisms with DFCRC/Pollination Configuring: GREG AI development; cross-stakeholder tools; distributed innovation enabling Instituting: Landscape investment systems; value distribution formalisation	Multi-sided market creation Socio-technical bridges built Institutional partnerships established Platform interoperability achieved

Directing Process	Stage	Contributing Practices	How Practices Manifest in Process	Primary Outcomes
EMBEDDING	Readiness	Evidencing Framing Co-creator recruitment	Evidencing: Premium carbon achievement (\$100/ACCU); membership growth metrics; policy influence demonstration Framing: System change narrative; scalable solutions positioning; cutting through market confusion with proven model Co-creator Recruitment: Multi-stakeholder recruitment for network effects; open transaction model; transformation support	Policy shifts achieved Market restructuring evident System-level adoption Network effects accelerating

The process view presented in Table 8 illuminates the dynamic nature of ecosystem work, revealing how micro-practices combine and recombine to serve different developmental purposes across the ecosystem's evolution. A key insight is that identical practices manifest differently depending on their directing process context – for example, co-design appears as exploratory workshops in the Architecting process but evolves into systematic regional methodologies during the Scaling process. The directing processes themselves demonstrate sophisticated complementarity: during the co-design stage, mobilising and architecting operate in parallel to simultaneously build social infrastructure and technical architecture; in the co-development stage, scaling and integrating become deeply intertwined as geographical expansion requires socio-technical bridge-building; while the Embedding Process synthesises and amplifies all previous work to achieve system-level transformation. Natural practice clusters emerge across processes, with framing and co-creator recruitment consistently paired to build momentum and expand participation, while the Architecting and the Scaling/Integrating processes deploy the full suite of practices to create comprehensive ecosystem infrastructure. Evidencing notably bookends the model, appearing in both manifesting (to demonstrate early credibility) and embedding (to prove system-level impact). Throughout this progression, practices demonstrate increasing temporal sophistication – co-design evolves from exploratory workshops to systematic methodologies, co-creator recruitment shifts from attracting individual champions to engaging institutional partners, and value exchange design progresses from conceptual frameworks to market-ready mechanisms. This process view ultimately reveals ecosystem work not as a linear progression but as an orchestrated interplay of practices that adapt and evolve to meet changing developmental

needs, demonstrating the sophisticated entrepreneurial judgement required to deploy the right combination of practices at the right time for maximum ecosystem development impact.

Phase 4: Delineating Developmental Stages. Using temporal bracketing (Langley, 1999), we analysed shifts in the dominant directing processes, organisational characteristics, and ecosystem outcomes over time. We identified critical transition points where the nature and focus of entrepreneurial work shifted markedly. The transition markers emerged inductively from the data – for example, the organisational shift from managing a single pilot programme to orchestrating multiple concurrent programmes signalled the transition from co-design to co-development, reflecting the ecosystem’s growing capacity to handle complexity. Similarly, the evolution from regional presence to national scale operations marked the shift to ecosystem readiness, demonstrating the ecosystem’s maturity and market acceptance. These organisational transitions were accompanied by corresponding shifts across multiple dimensions: financial structures evolved from grant-dependence through mixed funding to major capital raises; technical infrastructure progressed from beta platforms to fully scalable systems; and stakeholder engagement expanded from farmer-focused initiatives to multi-sided market orchestration. These patterns revealed three distinct developmental stages, each characterised by specific directing processes and increasing ecosystem maturity (cf. Table 9).

Table 9
Critical Transition Markers

Transition Marker	From Co-Design to Co-Development	From Co-Development to Readiness
Organisational	Single pilot → Multiple concurrent programmes	Regional presence → National scale
Financial	Grant-dependent → Mixed funding sources	Mixed funding → Major capital raise
Technical	Beta platform → Operational platform	Operational → Scalable infrastructure
Stakeholder	Farmer-focused → Multi-stakeholder integration	Integration → Multi-sided market
Impact	Local demonstration → Regional implementation	Regional → System-level policy influence
Membership	Early adopters → Steady growth	Steady growth → Accelerating uptake
Processes	Experimental → Standardised templates	Standardised → Optimised and automated

The data clearly demonstrates a non-linear development trajectory with the longest investment in the co-design stage (3 years), followed by accelerated development and rapid scaling once foundations were established.

Phase 5: Mapping Multi-Level Impacts. Throughout the coding process, we tracked how entrepreneurial activities generated effects at different system levels. We employed the MLP framework (Geels, 2002) as a sensitising concept while allowing impact categories to emerge from the data. This analysis revealed how single practices often generated simultaneous impacts across micro (individual and organisational), meso (institutional and market), and macro (societal and policy) levels (cf. Table 10).

Table 10

Multi-Level Impacts (Source: Author of this thesis)

System level	Impact category	Specific impacts	Evidence from RFM case
Micro-level (Niche)	Actor empowerment	Farmer positioning as central system innovators	“Our culture is one of ‘co-design, ground-up, farmer-led’”
	Knowledge integration	Incorporation of diverse local perspectives	Co-design workshops with farmers, agronomists, Landcare specialists
	Social infrastructure	Development of community cohesion	“It’s like a kinship... We share values and are thinking ahead together”
	Practice innovation	New operational models for regenerative agriculture	Development of farm digital twins and environmental asset assessments
	Capability building	New skills development among local actors	Farmer engagement with Regen Digital platform for data collection
Meso-level (Regime)	Institutional innovation	Creation of novel governance structures	Establishment of RFM as central governance entity
	Market restructuring	New transactional templates	LIPs as alternative to standardised market approaches
	Supply chain transformation	New verification frameworks	Partnerships with Australian Farm Institute, Go Source, Department of Agriculture for supply chain verification
	Methodological standards	Co-designed environmental credit methodologies	Collaboration with ANU to develop new credit issuance approaches

	Technical infrastructure	Enabling platforms for multi-sided participation	Regen Digital platform connecting farmers, buyers, and institutions
	Network reconfiguration	Integration of previously disconnected actors	Collaboration between agriculture, conservation, finance, and technology sectors
Macro-level (Landscape)	Policy influence	Government adoption of new approaches	“New South Wales government created a \$10m fund based on a collaborative landscape approach”
	Value system shifts	Societal revaluation of environmental services	Premium valuation of high-integrity environmental outcomes
	Capital flow redirection	New investment into landscape regeneration	Transactional mechanism for carbon-intensive companies to fund LIP projects
	Domain integration	Bridging of previously siloed sectors	Creating connectivity between agriculture, conservation, environmental markets, finance
	Environmental scale shift	Landscape-level ecological impacts	“Connecting 14 farmers, a national park and state forest”
	Governance innovation	Alternative to market/state environmental governance	Farmer-led, co-designed mutual model

Finally: Ensuring Analytical Rigour. To enhance trustworthiness, we employed several validation strategies. We conducted member checks with RFM founders and key participants, presenting our emerging framework for feedback and refinement. Regular research team meetings provided opportunities for challenging interpretations and exploring alternative explanations. We also engaged in negative case analysis, actively seeking data that might contradict our emerging patterns, which led to important refinements – such as recognising that co-design operated both as a distinct practice and as an overarching ethos.

This iterative process of moving between data and theory enabled us to develop a framework that was both empirically grounded in the RFM case and theoretically informed by existing ecosystem literature, ultimately yielding the integrated ecosystem work model presented in our findings.

6.4 Ecosystem Work: The Intentional Entrepreneurial Direction of Innovation Ecosystem Emergence and Integration

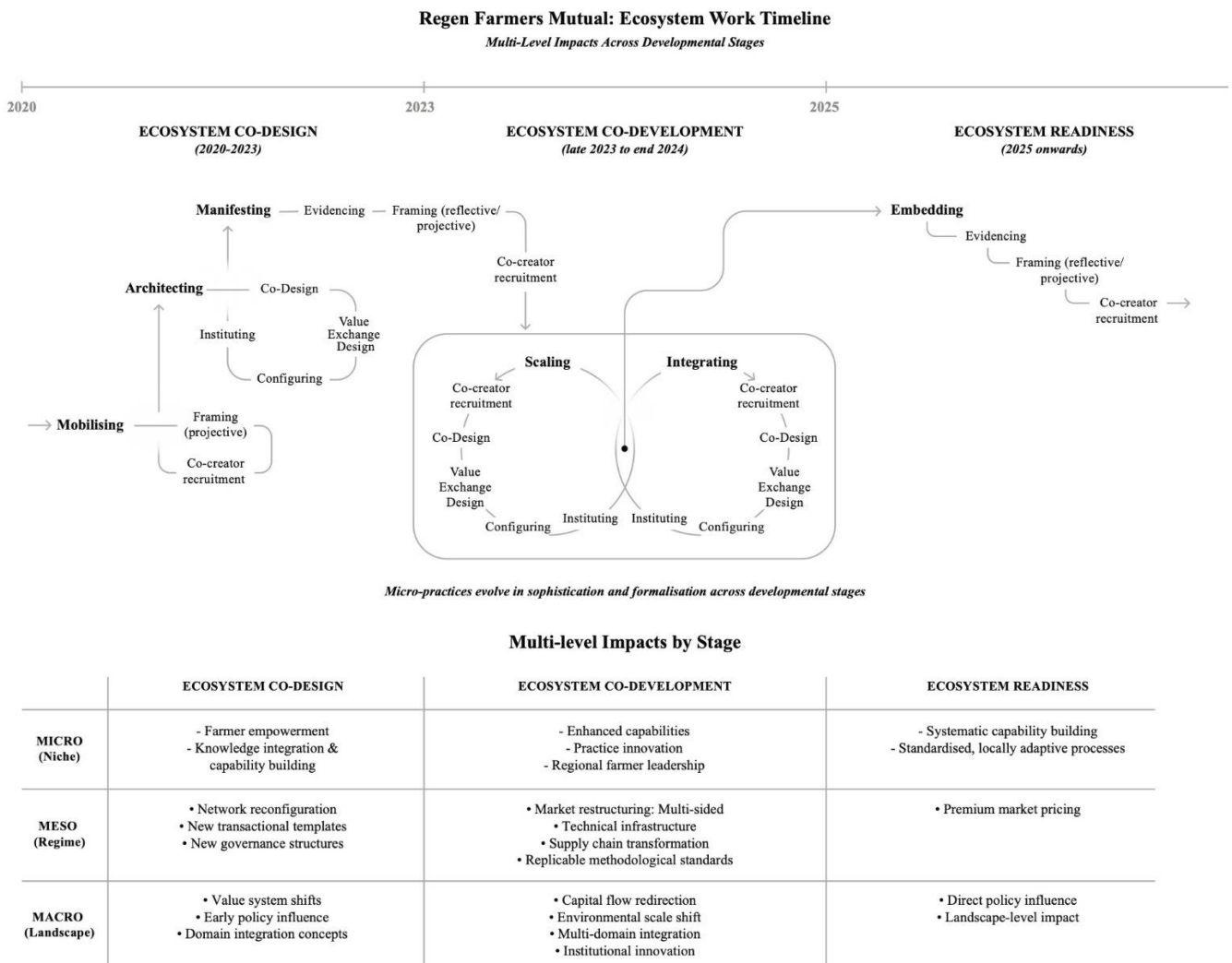
Our in-depth analysis of entrepreneurial practices in the Regen Farmers Mutual (RFM) case reveals a purposeful and reflexive overarching process we term ecosystem work in which seven micro-practices – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – contribute to six directing processes – mobilising, architecting, manifesting, scaling, integrating, and embedding (cf. Table 7 and 8). Through these processes, entrepreneurs intentionally steer the emergence, development, and integration of innovation ecosystems across three developmental stages – ecosystem co-design, ecosystem co-development, and ecosystem readiness (cf. Table 9). This ecosystem work represents a distinctive form of entrepreneurial direction that extends beyond traditional venture creation to encompass the orchestration of complex, multi-actor collaborative arrangements. We first present the *ecosystem work process model* as a conceptual framework to guide understanding of the subsequent RFM case study findings.

6.4.1 Ecosystem Work: A Process Model

Through systematic analysis of the RFM case, we developed a process model that captures how ecosystem work unfolds over time and across system levels. Figure 6 illustrates the ecosystem work observed in the Regen Farmers Mutual (RFM) case study, visualising how entrepreneurs intentionally directed innovation ecosystem emergence through specific micro-practices contributing to six directing processes across three developmental stages and their multi-level impact.

The timeline spans from 2020 to 2025+, delineating three distinct stages: Ecosystem co-design (2020-2023), ecosystem co-development (late 2023-2024), and ecosystem readiness (2025 onwards). Each stage encompasses characteristic processes that drive ecosystem development through specific micro-practices.

Figure 6
The RFM Ecosystem Work: Practices, Processes, Stages, Levels



In the ecosystem co-design stage (2020-2023), three complementary processes worked together to establish the foundation of the innovation ecosystem. The mobilising process established both conceptual and social foundations through framing (articulating the opportunity space) and co-creator recruitment (bringing together diverse actors with complementary capabilities). The architecting process designed the ecosystem's structural elements through co-design (collaborative development of structures), value exchange design (creating mechanisms for value creation and sharing), configuring (establishing technical infrastructure, methodologies, standards), and instituting (formalising governance arrangements and ecosystem processes). The manifesting process produced tangible evidence and expanded engagement through evidencing (creating demonstrable artefacts), framing

(refining the narrative and positioning), and co-creator recruitment (bringing in new ecosystem participants).

The ecosystem co-development stage (late 2023 – end 2024) marked RFM's transformative transition from foundational development to systematic implementation across multiple regions while simultaneously establishing crucial socio-technical connections. This pivotal stage featured two complementary processes. The scaling process through co-design, co-creator recruitment, value exchange design, configuring, and instituting, focused on expanding operational reach through enabling methodical collaborative regional LIP implementation across six diverse Australian landscapes. Equally important, the integrating process through co-creator recruitment, co-design, value exchange design, configuring, and instituting, established vital socio-technical linkages through creating bridges between previously separated domains of agriculture, conservation, environmental markets, and institutional frameworks. This stage brought together farmers, landholders, government agencies, investors, financiers, and corporate buyers in a coordinated ecosystem. The dual approach of geographical expansion and socio-technical integration was enabled by growing institutional recognition, government grants, and targeted research funding that allowed the entrepreneurs to advance the ecosystem's interconnected infrastructure – strengthening social networks, enhancing technical capabilities, and developing novel financial mechanisms – while simultaneously expanding its presence across Australian landscapes.

The ecosystem readiness stage (2025 onwards) represents the complete configuration of the innovation ecosystem – a state of readiness for more expansive operation and broader adoption. The embedding process (evidencing, framing, and co-creator recruitment) endorsed the ecosystem's ability to bring about transformative change across agricultural and environmental markets, producing premium earning potential for all ecosystem co-creators, while encouraging broad multi-sided adoption and participation for increasing network effects and environmental impact.

The RFM ecosystem work followed a distinctive temporal pattern where the co-design stage required the greatest time investment (3 years), involving extensive relational work, conceptual, and prototype development. Once coherence and legitimacy were established, later processes unfolded with accelerated momentum as the ecosystem shifted from experimentation to implementation and systemic integration.

Throughout all stages, these micro-practices evolved in sophistication and formalisation, collectively generating impacts across multiple system levels. Micro-level (Niche) impacts included farmer empowerment and practice innovation. Meso-level (Regime)

impacts included market restructuring, capital flow redirection, and institutional innovation. Macro-level (Landscape) impacts included direct policy influence and landscape-scale impact.

6.4.2 Defining the Micro-Practices

Framing establishes the conceptual foundation for a new collective value creation system through two key processes. Projective framing articulates an alternative paradigm that challenges dominant value logics, defining how value is created, shared, and measured across the ecosystem. Reflective reframing then refines this vision through ongoing engagement with diverse stakeholders, incorporating learning from experience and experimentation. Together, these processes shape a compelling narrative that highlights overlooked forms of value and sets the direction for the ecosystem's development, guiding how other practices bring the vision into reality.

Co-creator recruitment involves strategically attracting and engaging diverse actors with complementary capabilities who actively shape the innovation ecosystem. In multi-sided ecosystems like RFM, this means bringing together both supply-side participants – such as farmers and landholders who deliver environmental outcomes – and demand-side partners, including investors, buyers, government agencies, and institutional actors who value and support those outcomes. For example, the RFM entrepreneurs deliberately recruited across these domains, aligning place-based implementation expertise with market-side valuation, funding mechanisms, and institutional legitimacy. This multi-sided engagement was essential to co-developing an ecosystem capable of delivering integrated solutions to complex sustainability challenges.

Evidencing involves creating tangible artefacts – such as prototypes, models, and outcomes – that both validate and legitimise the ecosystem approach and support collective learning. This practice builds external credibility while enabling internal reflection, allowing the ecosystem to adapt based on feedback and deepen its understanding of real-world impacts.

Co-design operates as both a distinct micro-practice and a guiding ethos that permeates the entire ecosystem-building process. As a specific micro-practice, co-design involves structured activities where diverse stakeholders collectively shape the ecosystem's foundational elements through workshops, collaborative decision-making, and participatory design processes.

Value exchange design captures the entrepreneurial work of reimagining and constructing alternative paradigms for value creation and capture – developing methodologies, tools, and transactional templates that enable novel forms of value exchange between

ecosystem participants, creating practical mechanisms for meaningful commercial engagement while preserving environmental and social integrity.

Configuring involves the design and evolution of ecosystem processes, methodologies, and the ecosystem's technical infrastructure to support multi-sided participation, enabling connectivity and coordination across diverse actors and facilitating data sharing and operational efficiency.

Instituting involves formalising governance, organisational structures, processes and practices that embed shared values and build legitimacy with external stakeholders. It includes defining roles, responsibilities, decision rights, and value-sharing mechanisms across the ecosystem. Through this process, informal collaboration turns into structured systems with clear rules and protocols. These arrangements support coordination, signal credibility, and reinforce commitment to shared principles – ensuring the ecosystem can scale and maintain its integrity as it evolves.

6.5 The Emergence and Integration of Regen Farmers Mutual: Case Study Findings

In this section, we present our findings regarding the entrepreneurial direction of innovation ecosystem emergence, development, and integration in the RFM case – how entrepreneurial practice contributes to directing processes and multi-level stage development over time. In this section we examine the preconditions that were conducive to the RFM ecosystem work and how this ecosystem work manifested across the three distinct stages – ecosystem co-design, ecosystem co-development, and ecosystem readiness and the multi-level impact of RFM's ecosystem work.

6.5.1 Conducive Preconditions for Ecosystem Work

Ecosystem work is informed and shaped by preconditions that make deliberate ecosystem direction both possible and necessary. Before examining the micro-practices of ecosystem work in the Regen Farmers Mutual (RFM) case, there is value in understanding the conducive preconditions that created a strategic “window of opportunity” for ecosystem emergence.

Three Converging Macro-Level Developments. The RFM innovation ecosystem emerged from the convergence of three decades of interconnected developments driven by climate change and unprecedented biodiversity loss across Australia. These developments progressively challenged business-as-usual approaches while simultaneously creating new possibilities for system-level innovation.

First, corporate accountability pressures had intensified as Australian companies increasingly adopted standards from the International Sustainability Accounting Standards

Board. These reporting requirements created new business-to-business demands for environmental credentialing and nature-positive action that traditional market mechanisms struggled to address efficiently or credibly.

Second, environmental markets for water, carbon, and biodiversity had developed in Australia to incentivise conservation and sustainable resource management. This evolution began with water markets in the 1980s and 90s, followed by carbon markets through initiatives like the NSW Greenhouse Gas Abatement Scheme (2003), the Carbon Farming Initiative (2011), and the Emissions Reduction Fund (2014). Biodiversity markets emerged most recently with the Nature Repair Act in December 2023. While these markets were expanding, they presented critical limitations in how they connected with farmers and landscapes – often operating as extractive models that positioned farmers as price-takers rather than co-creators of environmental value.

Third, a sophisticated network of coordinated conservation and Natural Resource Management (NRM) had evolved across Australia through parallel developments at both grassroots and policy levels. At the grassroots level, the Landcare movement was established in 1986, while at the policy level, key national developments included the formation of the Council of Australian Governments in 1992, the establishment of the Natural Heritage Trust in 1997, and the introduction of the Environment Protection and Biodiversity Conservation Act in 1999. These concurrent grassroots and policy initiatives ultimately converged in the establishment of 56 regional NRM organisations across Australia. Over time, these NRM organisations developed distinctive capabilities in facilitating cross-scale collaboration and configuring networks that connected individuals, organisations, agencies, and institutions across multiple levels (Brown & Bellamy, 2006; Catacutan, Muller, Johnson, & Garrity, 2015).

The Intersection of Domains: Creating a Strategic Opportunity. The convergence of these three macro-level developments created a fertile intersection where regenerative agriculture, conservation, NRM, environmental markets, green finance, and sustainability reporting began to align in novel ways. This intersection presented a strategic opportunity to develop new integrative approaches that could simultaneously address multiple system-level challenges. Farmers needed economic models that recognised and rewarded regenerative practices. Businesses required credible environmental credentials to meet reporting requirements. Conservation organisations sought sustainable funding mechanisms. Policymakers were searching for scalable approaches to achieve biodiversity and climate goals. Financial markets were exploring new asset classes for responsible investment.

Most importantly, many of these domains had accumulated valuable lessons from previous market-based environmental initiatives. The NRM network possessed direct experience with the unintended consequences of early environmental markets – providing crucial insights into how poorly designed schemes had negatively affected landscapes, farmers, and communities. This experiential knowledge created the conditions for more sophisticated and integrated approaches.

“Pretty early on, I started making the case that the carbon farming market needed different business models - ones that shared both the benefits and the power more fairly. I really think that having the Farmers Mutual, along with the business model, the finance mechanism, and the monetisation all working together, gives us a shot at creating something scalable and transferable - a new way to fund these kinds of activities. But when it comes to landscape-scale cooperation for biodiversity, we’ve actually been doing that for a long time. The difference now is that we’re finally figuring out how to monetise it - as a credit - so people can actually invest in it.” - Executive, NRM Regions Australia

Entrepreneurial Capability Alignment. The final essential precondition was the presence of entrepreneurs with capabilities specifically aligned with this intersection of domains. The RFM founders combined rare expertise spanning finance, conservation, cooperative development, and regenerative agriculture – precisely the mix needed to bridge traditionally disconnected domains.

The entrepreneurs drew on Australia’s 150-year history of agricultural cooperatives and mutuals that had successfully tackled market failures. Their understanding of how previous environmental market initiatives had structurally disadvantaged farmers led them to design governance mechanisms that would ensure both ecological integrity and economic viability. The mutual structure addressed market inequities by aggregating farmers, creating economies of scale through shared expertise, and transforming farmers from price-takers to price-makers in complex value chains.

From Preconditions to Deliberate Ecosystem Work. These preconditions – converging macro-level developments, the intersection of domains, and entrepreneurial capability alignment – created the opportunity for ecosystem work but did not constitute ecosystem work itself. The actual work of ecosystem direction began when the RFM entrepreneurs recognised these conditions and initiated deliberate micro-practices and directing processes to orchestrate ecosystem emergence.

“The ecosystem development model, I think is the only thing that can crack this problem. And probably many other societal problems that we’re going to face in the future, by cutting across many different layers of stakeholders.” – Farmer and Member’s Council

This recognition of conducive preconditions marks the transition point to actual ecosystem work, where entrepreneurial direction moves from a “window of opportunity” to deliberate ecosystem direction. The transition from recognising contextual conditions to initiating deliberate ecosystem work manifested in the co-design stage of RFM’s development from 2020 through 2023.

6.5.2 The Co-Design Stage (2020 to end 2023)

The co-design stage marked RFM’s foundational development of the innovation ecosystem, with a focus on building core social and technical infrastructure enabled by a diverse mix of funding sources, including government grants, philanthropic contributions, crowdfunding, and direct investments. Three processes instrumental in this stage - mobilising, architecting, and manifesting - worked together to empower individual farmers (micro-level), reconfigure institutional arrangements (meso-level), and influence broader value systems (macro-level).

The Mobilising Process. The mobilising process established both the conceptual and social foundations necessary for ecosystem emergence. During this process, the RFM entrepreneurs engaged in parallel and mutually reinforcing efforts of framing and co-creator recruitment to build what they recognised as the essential “social infrastructure” for system-level change. These two micro-practices operated together toward establishing directional momentum and collaborative capacity.

“We are learning about how to build a social infrastructure. The bigger the environmental project, the bigger social infrastructure you need. If you only think of an environmental project in transactional terms, you won’t understand the need for social infrastructure, because it’s invisible.” - RFM Co-founder

Through framing, the entrepreneurs initially articulated the opportunity and value proposition broadly to create multiple entry points for participation. This evolving narrative served as both an invitation to engage and a facilitative mechanism to foster collaboration across traditional boundaries.

“At its core, what we’ve really been doing is co-facilitating. We’re constantly bringing people together, having conversations with all kinds of stakeholders - and it just keeps growing from there.” - RFM Co-founder

This narrative evolved through a discovery-led process of collective sensemaking, gradually becoming more focused and grounded as it was tested and refined through iterative dialogue with farmers, conservation groups, government representatives, and other potential partners. The entrepreneurs also used both traditional and social media – particularly YouTube and LinkedIn – to openly share their evolving thinking and invite wider participation, further legitimising the initiative.

As framing created the conceptual space for engagement, *co-creator recruitment* simultaneously assembled the diverse actors who would inhabit and shape that space. The entrepreneurs reflected on their approach to building this collaborative network:

“You know that saying, ‘you are the average of your five best friends’? Well, in a way, that’s what the Mutual has become. We’ve got these ‘five best friends’ - really aligned collaborators. It feels like the right people just find us. I think they self-select. Sure, we make choices, but in many cases, people gravitate towards what we’re doing because it resonates with them. There’s something about the way we’ve been facilitating - it just draws good people in. And honestly, all credit to my co-founder - he’s got that natural way with people, always pulling the right energy into the room.” - RFM Co-founder

This recruitment approach emphasised trust-building as a precondition for collaboration and brought together diverse actors with complementary capabilities from domains that had traditionally remained disconnected – farmers, conservationists, Natural Resource and Landcare Managers, agronomists, financial experts, government representatives, supply chain and policy specialists, First Peoples, and technology developers. The magnetic, values-based approach of the entrepreneurs attracted participants who not only resonated with the vision but were eager to actively contribute toward realising it.

Together, these integrated framing and co-creator recruitment practices established a strong directional trajectory for the RFM innovation ecosystem while building the relational foundation necessary for collaborative innovation to flourish. This mobilising process created both the shared conceptual understanding and the social infrastructure that would enable subsequent ecosystem development.

The Architecting Process. The architecting process marked a shift from exploratory mobilisation to deliberate ecosystem design, where the RFM entrepreneurs orchestrated four interconnected micro-practices – *co-design, value exchange design, configuring, and instituting* – to co-create the structural blueprint and operational prototypes. These practices functioned as an integrated design approach that simultaneously addressed governance, market mechanisms, and technical infrastructure through collaborative methodologies.

Co-design served as the central ethos binding these architectural practices together, ensuring the ecosystem's foundational elements emerged from collective intelligence rather than top-down imposition. Beginning in mid-2020, the entrepreneurs initiated a comprehensive 12-month co-design process involving farmers, land carers, natural resource managers, agronomists and other landscape stakeholders to develop the formal structure and governance of what would become RFM:

“When we got into the first course of co-design, it became apparent that it wasn't just about protecting habitat - there was carbon, and water, and all of the environmental markets were an issue. And so later on, you saw this kind of pivot from protected habitat, to Farmers Mutual, to just Regen Farmers Mutual.” - RFM Co-founder

This instituting work, emerging directly from the co-design workshops, resulted in the deliberate choice of a “company limited by guarantee” model that ensured democratic member control while providing appropriate legal protections. Participants collaboratively designed a five-member board elected democratically by members (with each member having one vote) and established a member council to provide mechanisms for day-to-day member voice in operations. A distinctive value allocation model – “80c for every dollar earned goes to the farmer, 10c to the farmer group that supports the farmer in transaction and 10c to the mutual” – institutionalised equitable benefit sharing. The formal establishment of RFM in July 2021 marked a critical milestone in the Architecting Process, creating a legitimate entity that embodied the ecosystem's collaborative values while providing a structural foundation for subsequent development.

With the Mutual's governance structure in place, the entrepreneurs immediately began developing and testing value exchange mechanisms through the pioneering Traprock LIP. Launched in late 2021 and continuing through 2022, this groundbreaking prototype involved ten property holders managing approximately 18 000 hectares of ecologically significant landscape in Queensland under the holistic name “Flourishing Fur, Feathers, Forests, Families and Farms”.

Through this initiative, value exchange design integrated with other architectural practices as the entrepreneurs and farmers collaboratively developed three key innovations: methodologies for valuing premium environmental outcomes that recognised ecosystem integrity; templates for structuring landscape-scale collaborations that pooled resources while preserving individual agency; and transactional frameworks balancing ecological principles with market viability.

“Our job is to get the buyers to engage with the farmers through our landscape impact programmes. And then we’ve got the project management tool and processes to help them manage the projects that emerge.” - RFM Co-founder

By mid-2023, the carbon sequestration efforts as part of the project had resulted in the capture of 30 000 tonnes of CO₂, demonstrating how the value exchange design created practical pathways for translating ecological stewardship into measurable economic value.

The success of this prototype served as the foundation for subsequent LIPs across multiple regions and secured additional government funding, including a \$1.89 million grant for four additional programmes in late 2023.

In parallel with the Traprock LIP development, the entrepreneurs recognised the need for specialised technical infrastructure to scale their approach. In late 2021, they made the pivotal configuring decision to establish Regen Digital as a separate subsidiary company, allowing them to overcome funding challenges related to the mutual governance structure and raise \$500 000 through an equity crowdfunding campaign in December 2021:

“In the past farmers used Google Earth, or even a drone, but until now, most will have had no idea of their green lines (fencing and paddocks) and where their animals and crops are at any given time, not to mention the assets that could deliver new revenue streams through carbon farming and protecting habitat.” - RFM Co-founder, Business News Australia Article

The platform’s development centred on the innovative “digital twin” concept that provided farmers with secure, sovereign control over their environmental data while enabling selective sharing with market participants. The configuring work involved designing multiple interconnected components: data collection methodologies for environmental farm assessments, secure data management systems that protected farmer ownership, and interface mechanisms for controlled sharing with potential market participants.

The official beta launch of the platform in July 2022 represented the transition from conceptual design to functional implementation, providing farmers with tangible tools for engaging with environmental markets on their own terms.

Through this chronological progression – from the co-design of governance structures to the development of the Traprock prototype and the technical configuration of Regen Digital – the RFM entrepreneurs demonstrated how the four micro-practices functioned as an integrated architecting process. The result was a coherent ecosystem architecture where governance structures, value exchange mechanisms, and technical systems reinforced and enabled each other.

“It’s like as individual pieces, they’re not that impressive. Put them together and see where they join perfectly, and suddenly you have something that has much more impact - and I think that they’re managing to join up those puzzle pieces.” – Executive, NRM Regions Australia

Through this integrated architecting process, the RFM entrepreneurs created both the conceptual blueprint and functional prototypes that would guide subsequent ecosystem development – establishing the structural foundations necessary for scaling while embedding the collaborative values that would ensure the ecosystem’s integrity and legitimacy.

The Manifesting Process. As the blueprints and prototypes emerged during the architecting process, the manifesting process produced a crucial bridge – consolidating collective understanding of progress and development while simultaneously laying groundwork for subsequent scaling. This transitional process connected RFM’s architectural conceptualisation to both concrete realisation and future expansion. The manifesting process employed three micro-practices – evidencing, framing, and co-creator recruitment.

Evidencing stood at the heart of this manifesting process, making concrete what had previously existed primarily as conceptual possibilities. The entrepreneurs created and deployed tangible artefacts that not only validated their approach for external audiences but also generated reflective insights that deepened the ecosystem’s self-understanding.

RFM’s “Trading in Regen: Ag and Climate Markets” conference on August 6, 2023 represented a pivotal moment in this evidencing work. Rather than using traditional lecture or panel formats, the entrepreneurs designed an innovative “provocateur-responder” conversation structure that demonstrated the ecosystem’s approach in practice. This event brought together 30 expert speakers across 15 topics, creating a concentrated demonstration of the ecosystem’s credibility and reach.

The conference functioned simultaneously as an evidencing platform and a co-creator recruitment opportunity, with attendance providing direct entry into the Mutual. Participants received practical demonstrations of RFM’s technical capabilities, including free sessions with RFM advisors to estimate farm carbon emissions – tangible evidence of the ecosystem’s ability to deliver concrete value. These demonstrations not only validated RFM’s approach but also created feedback loops that informed ongoing refinement of their methodologies and tools.

“Trading in Regen was one of those milestone moments where we kind of transitioned. Because we brought everyone together and everyone saw each other, oh, well, you’re here, you’re here - that was a major step change in credibility, if you like, and it feels like we’re stepping up a gear.” - RFM Co-founder

“Trading in Regen was an opportunity to go right, we can open up a new band of members - your membership fee to join a mutual is 30 bucks a year, and everyone pays that. And then if you’re part of a landscape impact programme, you might do other things.” - RFM Co-founder

Adaptive framing evolved alongside evidencing and stakeholder engagement throughout the manifesting process. As evidence from the Traprock LIP and other projects accumulated, the entrepreneurs refined their narrative to better define the opportunity space and RFM’s distinctive approach. This framing also became increasingly data-driven and specific, highlighting the shortcomings of existing models and the potential for integrated ecological, economic, and social outcomes.

Strategically identifying and engaging diverse actors with complementary capabilities, the entrepreneurs expanded their co-creator recruitment during this process. This recruitment now extended to include significant institutional partners that would become instrumental in the scaling stage – notably the ANU for co-designing methodologies for issuing new classes of environmental credits, and the Australian Farm Institute, Go Source, a digital product company, and the Department of Agriculture for developing supply chain verification frameworks. It also included the search for and appointment of a Chief Technology Officer at the end of 2023 to lead the scaling of the Regen Digital platform. This strategic hire brought specialised expertise in Geographic Information Systems (GIS), AI, and Large Language Models – capabilities essential for advancing the platform’s functionality and enabling it to effectively connect the many elements of RFM’s integrated value proposition during the scaling stage.

Multi-level Impacts of the Co-Design Stage. The co-design stage generated simultaneous impacts across all system levels through its three interconnected processes.

Micro-level impacts included farmer empowerment through repositioning farmers as central system innovators, knowledge integration through co-design workshops that incorporated diverse local perspectives, and capability building as farmers engaged with digital twins and environmental value concepts.

“One of our pilot farmers in a landscape impact programme described the experience as a ‘gamechanger,’ saying they now feel empowered with decision tools, language, and what they called ‘a mind shift’ to reorientate their farm and farm income for a natural integration of their values and sustainable income from its natural capital.” – Farmer and RFM Members Council

Meso-level impacts involved institutional innovation through the establishment of RFM's novel governance structures, network reconfiguration by connecting previously disconnected actors across agriculture, conservation, and finance, and the creation of new transactional templates through the Traprock LIP prototype that offered alternatives to standardised market approaches.

Macro-level impacts encompassed early value system shifts through the articulation of alternative paradigms for environmental service valuation, domain integration by demonstrating pathways to bridge siloed sectors, and the establishment of conceptual groundwork that would later enable direct policy influence. These multi-level impacts established the foundation for the accelerated development that would characterise the subsequent co-development stage.

6.5.3 The Ecosystem Co-Development Stage (end 2023 to end 2024)

The Ecosystem Co-Development stage (late 2023 to end 2024) represented a transformative transition for RFM. Moving beyond initial prototyping and foundational architecture, RFM now embarked on systematic implementation across multiple regions through diverse LIPs. This expansion phase also featured robust multi-sided participation, bringing together farmers, landholders, government agencies, investors, financiers, and corporate buyers in a coordinated ecosystem.

This pivotal stage benefited from growing institutional recognition, evidenced by continued government grant support, institutional participation, and targeted research funding. These resources enabled the entrepreneurs to significantly advance the ecosystem's interconnected infrastructure – strengthening and expanding social networks, enhancing technical capabilities, and developing sophisticated and novel financial mechanisms – while simultaneously expanding geographical reach across Australian landscapes.

Two complementary processes drove this co-development stage forward generating accelerated impacts across micro-, meso-, and macro-system levels through systematic expansion and socio-technical integration. The scaling process focused primarily on expanding RFM's operational reach, systematically deploying the LIP model across diverse bioregions while maintaining its environmental integrity and farmer-centred approach. Meanwhile, the integrating process established crucial socio-technical connections that bridged previously separated domains, creating linkages between agricultural practices, environmental outcomes, market mechanisms, and institutional frameworks.

Scaling Process: From prototype to multi-regional implementation. A strategic partnership with the New South Wales government catalysed the scaling process – providing substantial financial backing for RFM’s growth:

“It is thanks to our High-Impact Partnership with the NSW Department of Energy, Water, the Environment and Climate Change. We won a \$1.89m grant over three years that is funding 4 x landscape impact programmes and over half a million in targeted funding for up to 80 farmers across the four regions.” - RFM Co-founder

At the heart of this expansion was the innovative cohort LIP co-design model. Developed by the entrepreneurs, this model enabled the simultaneous *co-design* of LIPs across multiple diverse bioregions throughout Australia while still preserving the high-integrity, place-based methodology that had proven successful during the initial co-design stage.

“Regen Farmers Mutual (RFM) is partnering with landholders, Landcare networks and groups, Drought Hubs, Natural Resource Management/Local Land Services and land improvement groups to creating multiple demonstration sites, each co-designed for replication within a specific environmental context.” [Source: NSW Climate and Energy Action website]

The practices of co-design, co-creator recruitment, value exchange design, configuring, and instituting worked together to enable geographical expansion while maintaining the ecosystem’s distinctive character. Co-design evolved from an exploratory practice to a systematised methodology that maintained genuine farmer leadership while enabling efficient replication across regions. Value exchange design and configuring adapted to regional contexts through local co-design sessions, creating frameworks that reflected specific ecological and agricultural conditions and the inherent value specific to each landscape. *Instituting* practices formalised the LIP development methodology into repeatable processes that could be efficiently deployed while preserving local autonomy. *Co-creator recruiting* at the regional level brought together diverse stakeholders for each new LIP.

By the conclusion of the ecosystem co-development stage, RFM was working on upwards of six landscape-scale transactions in Queensland, NSW and Victoria across a range of critical ecosystems from the Great Barrier Reef to the Northern Rivers and Western Murray. These LIP co-design teams also engaged supply chains, banks, and local stakeholders to align environmental priorities across each respective landscape.

Figure 7.

The Demand and Supply Solution with Regen Digital as Linking (Source: Interview with co-founder)



The resulting bottom-up, co-designed LIPs covered land managed by an ecosystem of stakeholders – farmers, traditional owners, private landholders, and governments – producing “supply-shed agreements” aligned with TNFD guidelines (cf. Figure 7). This approach stood in stark contrast to conventional top-down standardised market approaches, delivering more inclusive, higher-integrity outcomes and commanding premium carbon value in the marketplace. This multi-regional presence positioned RFM to integrate into a coherent system capable of driving broader socio-technical transformation.

Integrating Process: Connecting ecosystem components and ecosystem actors. The integrating process highlighted the critical role of *multi-sided co-creator recruitment* – expanding beyond farmers and landholders to also include institutional investors, corporate buyers, policy actors, and market intermediaries as active co-creators of RFM’s economic, social, and environmental impact. To this end, the entrepreneurs entered multi-level collaboration in *co-design* and *value exchange design* with regime actors to advance both supply-side and demand-side components of the ecosystem – such as supply chain verification frameworks (co-designed with partners including the Australian Farm Institute, Go Source, and the Department of Agriculture), and methodologies for issuing environmental credits (co-designed with the Australia National University).

More extensive co-design and value exchange design included partnering with Australia’s Digital Finance CRC and Pollination (a specialist climate change investment advisory firm) to co-design transactional mechanisms to match and link the LIPs with suitable buyers/investors. This transactional mechanism, initially designed for coal and gas companies

needing to offset 45% of carbon emissions by 2030, would address a critical corporate need while funding the LIP projects to generate long-term carbon credits.

The Regen Digital platform architecture, GREG AI, emerged as the backbone of RFM's configuring practice, enabling multi-sided participation, connectivity, and interoperability across farmers, funders, co-creating actors, and investors or buyers. By the end of 2024, the platform's expanded functionality supported a comprehensive suite of activities: farmer onboarding using farm digital twins, environmental asset assessments, intelligent investment advisory services, management systems, access to grants/funding/buyers, and educational resources. This enhanced technical infrastructure created robust pathways for farmers to understand their environmental assets, assess monetisation opportunities, manage environmental data to meet market requirements, and ultimately receive payment for improving and protecting these assets.

As the RFM ecosystem scaled across regions, it simultaneously deepened its integration within broader socio-technical systems, creating pathways for diverse stakeholders to participate meaningfully in landscape regeneration while establishing RFM as a significant force for system-level transformation in Australian agriculture and environmental markets.

Multi-Level Impacts of the Co-Development Stage. Micro-level effects of the scaling process included enhanced farmer empowerment through the cohort LIP model, which maintained farmer leadership while enabling efficient replication. Meso-level impacts involved the systematic development of new transactional templates across six diverse bioregions, creating methodological standards that could be replicated while remaining place-specific. At the *macro-level*, this geographical expansion contributed to environmental scale shifts by demonstrating landscape-level ecological impacts across multiple Australian bioregions.

The integrating process established crucial socio-technical connections while generating the most significant meso-level transformations of the entire development process. Multi-sided co-creator recruitment brought institutional investors, corporate buyers, and policy actors into active ecosystem participation, fundamentally reconfiguring market structures. The enhanced Regen Digital platform created *meso-level* technical infrastructure enabling multi-sided participation while supporting *micro-level* capability building through farmer digital twins and environmental asset assessments. These integrating activities contributed to *macro-level* capital flow redirection through the development of transactional mechanisms connecting coal and gas companies' offset requirements with LIP project funding.

6.5.4 The Ecosystem Readiness Stage

By the end of 2024, RFM had evolved from an experimental initiative into a functioning ecosystem with measurable impact. The organisation's transition into the Ecosystem Readiness stage marked a fundamental shift from proving concepts to embedding proven approaches within broader agricultural, institutional, and market structures across Australia, demonstrating mature impacts across micro-, meso-, and macro-system levels through proven system transformation.

The Embedding Process: From Potential to Proven Impact. The RFM Embedding Process involved *evidencing* how the ecosystem functioned cohesively in real-world settings, moving beyond describing potential to showcasing tangible ecological and economic outcomes. RFM began demonstrating how its approach could work within and transform existing structures – from carbon markets to government policy frameworks to regional agricultural networks. Membership growth stabilised at approximately 30 new farmers monthly, providing steady expansion while maintaining the relational depth essential to the mutual model. More significantly, the mutual developed repeatable processes that dramatically reduced implementation timeframes while maintaining quality outcomes.

Learning Through Setbacks: The Traprock Corridor. The mutual's journey towards demonstrable impact included both successes and instructive failures. The Traprock biodiversity corridor initiative exemplified this dynamic. Involving ultimately 14 farmers across 40 000 hectares, the project aimed to create both ecological connectivity and carbon revenue streams. While the biodiversity corridor between Sundown National Park and Pikes Creek progressed successfully, the carbon component encountered significant regulatory obstacles.

Despite investing \$108 000 and months of engagement with the Clean Energy Regulator, only one of seven carbon project applications received approval before the avoided clearing method expired in March 2025. Rather than viewing this as failure, the setback revealed RFM's adaptive capacity and led to a breakthrough discovery.

Breakthrough Success: Premium Carbon Projects. The carbon credit challenges led RFM to spotlight a Southern Tablelands farmer who had independently developed an innovative approach to restoring box gum grassy woodlands. His project became the first to achieve the premium \$100 per ACCU price point, demonstrating that environmental markets could generate substantial value through high-integrity projects.

“It's one farmer, and it is an inspiring story, and we will be rolling out his process to hopefully hundreds of farmers,” explained one co-founder.

This individual success, while different from the original collective vision, provided proof of concept that farmers could achieve premium pricing through environmental innovation – validating RFM’s core thesis through an unexpected pathway.

Strategic Framing for System Change. As system-level evidence accumulated, it informed increasingly sophisticated framing that positioned RFM as a catalyst for broader socio-technical transformation. Government funding approaches began shifting to recognise the value of landscape-scale collective action. The New South Wales government allocated between \$70 and \$100 million to achieve their net zero pathway, with \$10 million directed to the Primary Industries Productivity and Abatement Programme (PIPAP). Significantly, this represented “the first time ever” that grants were allocated exclusively to groups of farmers rather than individuals, requiring minimum areas of 3 000 hectares and demonstrated co-benefits beyond carbon.

“The new \$10 million NSW Low-Carbon Landscapes grant policy is, I believe, a direct reflection of RFM’s and the group I’m also working with, Western Murray Land Improvement Group’s, macro-level impact. This policy shift didn’t happen in a vacuum - I believe it emerged from the groundwork we laid in demonstrating farmer-led approaches to natural capital development and the collective power of landscape-scale interventions.” – Farmer and RFM Members Council

This policy evolution directly responded to the success of initiatives like RFM’s LIPs. Where previously government funding supported individual farmers through various programmes, the new approach explicitly encouraged “Landcare and NRM groups, and anybody with multiple cooperatives” to apply for up to \$1 million for multiple landscapes or \$500 000 for single landscape initiatives. RFM’s role evolved from direct grant recipient to supporting multiple organisations in developing their own landscape-scale proposals, multiplying their impact across the \$10 million funding pool.

This evidence of policy influence demonstrated how the RFM innovation ecosystem was beginning to reshape institutional structures and government programmes, creating reinforcing feedback loops that accelerated adoption of landscape-scale, farmer-led models. The framing expanded from describing an organisational initiative to articulating a transformative approach to agricultural systems and environmental markets.

Multi-Stakeholder Co-Creator Recruitment. Building on relationships established during the co-development stage, RFM continued active co-creator recruitment to grow and expand participation in the RFM innovation ecosystem. By focusing on multi-sided network effects – where increased participation on each side of the platform enhanced value for all

participants – the entrepreneurs anticipated creating durable competitive advantage while generating meaningful ecological and social impact.

“As the market washes out in the next 5 to 10 years and it consolidates, we hope we’ll be one of those three or four firms that are still there and at that point we might be at 1 in 3 or 1 in 4 farmers and we’ll be different to our competitors and we’ll have landscape scale as opposed to scattergun kind of concentrations and that means wherever we are, we’ll have a decent presence and a decent support and a decent network effect.” - RFM Co-founder

Multi-level impacts of the Ecosystem Readiness Stage. The embedding process demonstrated the ecosystem’s capacity for system-wide transformation through proven impacts across all levels simultaneously. Macro-level policy influence became clearly evident as the New South Wales government created funding mechanisms based directly on RFM’s collaborative landscape approach - representing “the first time ever” that grants were allocated exclusively to groups of farmers rather than individuals. Meso-level market restructuring reached maturity through the achievement of premium pricing for high-integrity environmental outcomes, with the Southern Tablelands farmer’s project reaching \$100 per ACCU compared to standard rates of \$35-50. RFM also planned further efforts to help farmers create and capture future value.

“In late August 2025, we’re hosting a two-day series on either side of the NSW/ Victoria border called Discovering Your High Value Natural Capital Assets and the Five Pools of Opportunity. These are: 1. Government - grants, extension and markets, 2. Philanthropy 3. Supply chains, 4. Local economic networks, and 5. Hybrid and Emerging. The Victorian event will have a drought lens and be somewhat of a crucible as the south-eastern part of the state is in a crippling drought. These events will be a milestone for RFM’s journey so far and creation of value into the future.” – Farmer and RFM Members Council

Micro-level impacts consolidated through standardised but locally-adaptive processes that maintained farmer empowerment while enabling systematic replication.

By the start of the Ecosystem Readiness stage and the conclusion of this study, the RFM case has illustrated how entrepreneurs can intentionally nurture innovation ecosystems and guide their embedding within broader socio-technical systems to address complex challenges that exceed the capabilities of individual organisations, creating lasting transformation across interconnected agricultural, environmental, and economic structures.

6.6 Discussion

The concept of ecosystem work – a purposeful and reflexive overarching process through which entrepreneurs intentionally direct innovation ecosystem emergence, development, and integration – stands as this research’s central contribution. Moving beyond existing theoretical fragmentation, our process-oriented, practice-based model serves as the integrative mechanism connecting previously separate theoretical perspectives, illuminating how entrepreneurs orchestrate complex, multi-actor innovation across system levels while simultaneously addressing structural configurations, evolutionary dynamics, multi-level transitions, and developmental trajectories.

6.6.1 Theoretical Contributions

The Distinctive Contribution of the Ecosystem Work Model. The ecosystem work model advances innovation ecosystem theory through four significant contributions that address critical gaps in existing literature.

First, it specifies the micro-level practices through which entrepreneurs actively shape ecosystem emergence. While previous research has acknowledged entrepreneurial influence (Autio & Thomas, 2014; Nambisan & Baron, 2013; Overholm, 2015), it has not identified the concrete practices – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – through which this agency operates.

Second, it reveals the directing processes that connect micro-practices to ecosystem-level outcomes. Our research uncovers six directing processes – mobilising, architecting, manifesting, scaling, integrating, and embedding – that demonstrate how entrepreneurial practices combine to achieve specific developmental objectives. Each directing process integrates multiple theoretical dimensions previously treated as separate approaches.

Third, it illuminates the sophisticated interplay between intentional direction and collaborative co-creation. While ecosystem-as-structure perspectives emphasise architectural design and ecosystem-as-coevolution perspectives highlight emergent dynamics, our ecosystem work model reveals how entrepreneurs deliberately create conditions for collaborative emergence while simultaneously shaping ecosystem architecture through coordinated practices.

Fourth, it demonstrates the temporal sophistication of ecosystem work. Our findings reveal how entrepreneurs strategically sequence activities across developmental stages, with early relational investments enabling accelerated development in later stages. This temporal dimension captures the strategic sequencing and non-linear development trajectory that existing perspectives have overlooked.

Integrating Fragmented Theoretical Perspectives. Our ecosystem work model provides the missing integrative framework that bridges previously disconnected theoretical perspectives on innovation ecosystems. Each directing process demonstrates this integration.

The mobilising process bridges structural and coevolutionary perspectives by using framing and co-creator recruitment to simultaneously establish architectural foundations (addressing Adner's alignment structures) while creating conditions for emergent collaboration (addressing Breslin's coevolutionary dynamics). This process shows how entrepreneurs deliberately shape both structure and emergence through complementary practices.

The architecting process directly addresses gaps in ecosystem-as-structure perspectives (Adner, 2016; Jacobides et al., 2018) by revealing the specific practices through which entrepreneurs construct alignment structures and governance arrangements. Yet it does so through collaborative methodologies that honour the coevolutionary nature of ecosystem development, demonstrating how structural design can emerge from collective intelligence rather than top-down imposition.

The manifesting process connects developmental stage models with multi-level perspectives by demonstrating how evidencing practices create the tangible artefacts necessary for stage transitions while simultaneously building legitimacy across niche, regime, and landscape levels. This process reveals how entrepreneurs bridge conceptual development with concrete realisation.

The scaling process integrates all four perspectives by showing how practices evolve in sophistication (addressing stage models), expand across geographical regions (creating new structural configurations), adapt to local contexts (enabling coevolution), and bridge from niche innovations to regime-level implementation (fulfilling multi-level transitions).

The integrating process exemplifies multi-level bridging in action, revealing how entrepreneurs use sophisticated combinations of practices to create socio-technical linkages between previously disconnected domains – precisely the kind of system-level connectivity that multi-level perspectives theorise but do not explain procedurally.

The embedding process demonstrates how mature ecosystem work achieves what stage models describe as legitimacy and system integration, while simultaneously reshaping landscape-level conditions through policy influence and market restructuring – showing how micro-practices ultimately generate macro-level transformation.

Multi-Level Impact Generation. Our research advances understanding of how entrepreneurial practices simultaneously generate impacts across micro-, meso-, and macro-system levels. The RFM case demonstrates that single practices often produce cascading

effects across all system levels, revealing ecosystem work as inherently multi-level phenomenon. For instance, co-design practices simultaneously empowered individual farmers (micro-level), reconfigured institutional arrangements (meso-level), and influenced policy frameworks (macro-level).

This multi-level impact generation occurs through three mechanisms revealed in our analysis: *practice amplification*, where individual practices generate effects that expand across system levels; *process integration*, where directing processes coordinate impacts across levels; and *temporal compounding*, where early investments in foundation-building create accelerating effects across all levels in later stages.

The Temporal Dynamics of Ecosystem Development. Our findings reveal a distinctive temporal pattern that challenges conventional entrepreneurial development models. The ecosystem work process follows a front-loaded investment approach where the co-design stage requires the greatest time investment (three years in the RFM case), involving extensive relational work and conceptual development. Once coherence and legitimacy are established, later processes unfold with accelerated momentum as the ecosystem shifts from experimentation to implementation and systemic integration.

This non-linear trajectory demonstrates the strategic importance of patient, relational work in establishing conditions for subsequent scaling and integration. The temporal sophistication observed challenges conventional entrepreneurial approaches that expect linear progression and early returns, suggesting the need for alternative investment logics that recognise the value of foundation-building activities.

Co-Design as Meta-Practice and Philosophy. Our analysis reveals co-design operating at two levels: as a specific micro-practice involving structured collaborative activities, and as an overarching ethos that permeates all ecosystem work. This dual nature represents a significant theoretical insight. Co-design as philosophy shapes how all other practices are implemented, ensuring they emerge from collective intelligence rather than top-down direction.

This finding extends understanding of collaborative innovation by demonstrating how entrepreneurial direction can maintain strategic intention while enabling genuine stakeholder agency. The meta-practice dimension explains how entrepreneurs can orchestrate ecosystem development without compromising the distributed ownership and democratic participation essential to ecosystem legitimacy and sustainability.

6.6.2 Practical Implications

Investment Logic and Patient Capital. Our temporal findings challenge conventional investment logics that expect linear progression and early returns. The front-loaded nature of ecosystem work suggests the need for “patient capital” approaches that recognise the value of foundation-building activities and align funding timeframes with the distinctive development trajectory of innovation ecosystems.

The RFM case demonstrates that ecosystem work requires sustained investment in relational infrastructure, collaborative capacity building, and multi-stakeholder alignment before generating measurable outcomes. Investors and funders must develop new metrics for evaluating ecosystem-level potential and create financial instruments that support the extended development timelines essential to effective ecosystem work.

Policy Frameworks for Cross-Domain Collaboration. Our multi-level analysis highlights the importance of creating enabling environments for ecosystem work rather than focusing solely on individual organisations. Effective policy frameworks must support cross-domain collaboration, provide flexibility for emergent governance arrangements, and develop new metrics for evaluating ecosystem-level impacts across system levels.

The RFM case illustrates how policy can evolve to recognise and support ecosystem approaches – as evidenced by the NSW government’s shift to funding landscape-scale farmer groups rather than individual participants. This policy evolution demonstrates how ecosystem work can influence institutional frameworks while requiring supportive policy environments to flourish.

Organisational Forms and Governance Innovation. Our findings highlight the critical importance of appropriate organisational forms in enabling effective ecosystem work. The mutual structure proved instrumental in democratising participation, aggregating stakeholder power, and ensuring equitable value distribution across the ecosystem. This suggests that successful ecosystem development requires careful attention to governance architecture that balances strategic direction with distributed ownership and democratic participation.

The choice of organisational form emerges as a foundational design decision that shapes all subsequent ecosystem work. Entrepreneurs must consider how governance structures will enable collaborative value creation while maintaining the legitimacy and accountability essential to multi-stakeholder engagement.

6.6.3 Limitations and Future Research Directions

Our research is based on a single case study, which limits the generalisability of findings across different contexts and domains. The RFM case represents a specific intersection of agriculture, environmental markets, and cooperative governance that may not translate directly to other sectoral contexts or geographical settings. Additionally, our study concludes at the beginning of the Ecosystem Readiness stage, limiting our understanding of long-term ecosystem evolution and sustainability.

The Australian context provides distinctive preconditions – including established cooperative traditions, sophisticated NRM networks, and evolving environmental market frameworks – that may not exist in other geographical contexts. Future research should examine ecosystem work across diverse institutional, cultural, and economic contexts to identify patterns that generalise beyond the specific conditions observed in the RFM case.

6.6.4 Future Research Opportunities

Comparative Analysis Across Contexts. Research examining ecosystem work across different domains, geographical contexts, and institutional environments could identify the practices and processes that generalise versus those that require contextual adaptation. Such analysis would advance understanding of when and how ecosystem work approaches can be transferred across settings.

Capability Development for Ecosystem Work. Studies investigating the individual and organisational capabilities that enable effective ecosystem work could advance understanding of how these can be developed through education, training, and experiential learning. This research could inform the development of system leadership capabilities essential to addressing complex challenges.

Governance Evolution and Distributed Agency. Research into how governance arrangements evolve across developmental stages could illuminate how ecosystems balance strategic direction with distributed ownership and democratic participation. This would advance understanding of organisational innovation in multi-stakeholder contexts.

Policy Coevolution with Ecosystem Development. Studies exploring how policy frameworks can effectively support ecosystem work without constraining entrepreneurial direction would provide valuable insights for both theory and practice. This could examine the dynamic relationship between ecosystem development and institutional change.

Longitudinal Analysis of Ecosystem Sustainability. Extended longitudinal studies following ecosystems through multiple developmental cycles could advance understanding of

how ecosystem work evolves over time and the factors that contribute to long-term sustainability and continued innovation capacity.

Methodological Innovations. Future research could benefit from methodological innovations that capture the multi-level, temporal complexity of ecosystem work. Participatory action research approaches could provide deeper insights into the collaborative dynamics essential to ecosystem development. Network analysis methods could illuminate the evolution of relationships and influence patterns across developmental stages. Mixed-methods approaches combining qualitative process research with quantitative network and outcome analysis could provide more comprehensive understanding of ecosystem work effectiveness.

6.7 Conclusion

The ecosystem work model developed through this research represents a significant advance in understanding how entrepreneurs can intentionally direct innovation ecosystem emergence, development, and integration. By revealing the specific micro-practices and directing processes through which entrepreneurs orchestrate multi-actor innovation, our research provides both theoretical coherence and practical guidance for addressing complex challenges that exceed the capabilities of individual organisations.

The integration of previously fragmented theoretical perspectives through the ecosystem work framework opens new possibilities for understanding and supporting collaborative innovation across traditional boundaries. As entrepreneurs increasingly direct attention toward complex challenges requiring coordinated action across sectors, organisations, and governance levels, the ecosystem work model offers a pathway for catalysing transformative change at scale.

The RFM case demonstrates that effective ecosystem work emerges through sophisticated integration of vision, mobilisation, architecture, manifestation, scaling, integration, and embedding processes. This integration – enabled by patient relationship-building, multi-level engagement, and facilitative leadership – creates innovation ecosystems capable of generating meaningful impact across environmental, economic, and social dimensions simultaneously. By understanding and supporting ecosystem work, we can advance the collective innovation capacity needed to create more sustainable, equitable, and resilient futures.

CHAPTER 7: META-INNOVATION – CONSTRUCT AND PRAXIS

7.1 Introduction

The progression of this dissertation has revealed a fundamental evolution in how innovation unfolds in contemporary contexts. In Chapter 4, we traced disruptive innovation's expansion beyond its original firm-centric conceptualisation to encompass ecosystem-level processes with societal transformation potential. Chapter 5 then identified three distinct configurations – enterprise-led, innovation ecosystem, and socio-technical system – through which this expanded phenomenon manifests in different contexts. Chapter 6 illuminated the concrete entrepreneurial practices that direct disruptive innovation ecosystem emergence, development, and integration, revealing how entrepreneurs orchestrate complex collaborative arrangements through purposeful ecosystem work.

This intellectual journey has not merely elaborated on an existing concept but has progressively uncovered a higher-order phenomenon that emerges as the common thread across all three papers: meta-innovation. Where traditional innovation approaches tend to focus on singular domains or challenges, meta-innovation deliberately works across technological, social, environmental, and economic dimensions to generate transformative impact across multiple levels and systems simultaneously. Rather than creating individual innovations or even innovation ecosystems, meta-innovation represents innovation at scale that achieves higher-order visions and addresses complex interconnected challenges across traditional boundaries.

What has become increasingly apparent throughout this research is that distinctive characteristics of contemporary challenges are triggering and necessitating this meta-innovation approach. Today's grand challenges – from climate change to digital transformation to sustainable development – feature unprecedented complexity and interconnectedness where technological, social, economic, and ecological dimensions are inextricably linked. These challenges cannot be decomposed into simpler problems addressable through conventional single-domain innovation approaches. The RFM case study vividly illustrates this reality, showing how their value proposition required integrating previously separate domains of conservation, environmental markets, green finance, regenerative farming practices, and market mechanisms into a coherent innovation approach.

Rather than focusing on individual products, services, or even business models, meta-innovation encompasses the systemic redesign of innovation processes across organisational boundaries and system levels. It represents a higher-order capability that enables societies to

enhance their collective innovation capacity in the face of grand challenges through the pursuit of transformative visions.

The RFM case study offers valuable insights that help illuminate this emerging concept. Through the lens of entrepreneurial ecosystem work, we observed patterns that suggest entrepreneurs consciously redesigning innovation processes themselves rather than simply creating specific innovations or ecosystems. The case revealed activities spanning across enterprise, ecosystem, and systemic levels simultaneously, with entrepreneurs working at the intersections between these traditionally separate domains.

This chapter synthesises insights from the three papers to conceptualise meta-innovation as an emerging theoretical construct. It explores the relationship between configurational disruptive innovation and meta-innovation, examines the defining characteristics of meta-innovation, investigates its underlying mechanisms and dynamics, identifies the organising tools through which it operates, and presents a practical framework for implementation. By articulating this emergent concept, the chapter provides a conceptual bridge that connects the dissertation's individual contributions into a coherent theoretical whole while opening new avenues for future research and practice.

7.2 Conceptualising Meta-Innovation

7.2.1 From Innovation to Meta-Innovation

Traditional innovation theory has primarily focused on how organisations develop and commercialise new technologies, products, services, and business models. Even disruptive innovation, as originally conceptualised by Christensen (1997), centred on how individual firms could challenge incumbents through strategic technologies, positioning, and market entry. Over time, as demonstrated in Paper 1, this focus has expanded to encompass more complex, collaborative, and systemic forms of innovation.

Where traditional innovation approaches tend to focus on singular domains or challenges, meta-innovation deliberately works across technological, social, environmental, and economic dimensions in ways that generate transformative impact across multiple systems simultaneously. It can be defined as: *A meta-scale and multi-level innovation process to realise higher-order visions, integrated value propositions, and solve complex interconnected grand challenges that demand coordinated transformation across organisational, ecosystem, domain, and socio-technical boundaries simultaneously.*

This transformation manifests in several ways: through the simultaneous pursuit of multiple interconnected challenges that traditional approaches would address separately; through the involvement of diverse actors who bring fundamentally different knowledge bases,

capabilities, and institutional logics; through the deliberate reconfiguration of relationships and processes across traditional boundaries; and through the pursuit of transformative visions or value propositions that challenge established socio-technical paradigms.

Rather than producing fixed solutions, meta-innovation creates a generative framework that establishes conditions for transformative innovation across organisational, ecosystem, domain, and socio-technical boundaries simultaneously.

Meta-innovation is “meta” in several important ways. It embodies multi-dimensional integration by bridging across competitive dynamics, value creation approaches, market conceptualisation, and societal impact dimensions that traditional innovation approaches tend to address separately. Meta-innovation achieves cross-configurational orchestration by working across and coordinating multiple innovation configurations simultaneously – enterprise-led, innovation ecosystem, and socio-technical system – recognising that complex challenges often require different configurational patterns working in concert. Furthermore, it enables multi-level transformation by simultaneously reshaping innovation at micro (individual actors and organisations), meso (networks and industry structures), and macro (societal systems and institutions) levels, creating reinforcing dynamics that accelerate system-wide change.

The three configurations of disruptive innovation identified in Paper 2 – enterprise-led, innovation ecosystem, and socio-technical system – reveal a progression toward increasingly meta-oriented innovation approaches. While enterprise-led disruptive innovation remains focused on firm-level innovation strategies, innovation ecosystem configurations begin to demonstrate meta-innovation characteristics through their pursuit of more ambitious solutions that require coordination across organisational boundaries. Socio-technical system configurations fully embody meta-innovation through their transformative visions and value propositions that drive reconfiguration of innovation processes across multiple system levels.

7.2.2 Evolutionary Dynamics and Patterns of Meta-Innovation

A crucial aspect of meta-innovation is its evolutionary trajectory. While meta-innovation is defined by its scale-spanning nature, it is important to recognise that not all instances of meta-innovation begin at massive scale. Many meta-innovations initially emerge within relatively small spheres of influence but contain within them the transformative potential to fundamentally reshape socio-technical landscapes as they mature and achieve mainstream adoption.

The RFM case examined in Paper 3 illustrates this evolutionary dynamic. What began as a relatively small-scale initiative focused on regenerative agriculture in specific Australian

regions contained the seeds of a much larger transformation in how environmental markets, agricultural practices, sustainability reporting and green finance could function at scale. Through deliberate entrepreneurial ecosystem work – particularly practices like framing, co-creator recruitment, co-design, and evidencing – the initiative progressively expanded its sphere of influence while maintaining its transformative vision.

This evolutionary perspective on meta-innovation reveals several important patterns. Meta-innovations often contain transformative potential from their earliest stages, even when their actual scale of implementation remains limited. Their fundamental reimagining of how innovation processes could operate across domains distinguishes them from conventional innovations that simply grow in market reach. Rather than expanding uniformly, meta-innovations often develop by crossing scale thresholds – moving from local to regional implementation, or from sectoral to cross-sectoral adoption. Each threshold crossing typically requires new approaches to coordination and governance.

The socio-technical system configuration identified in Paper 2 represents the most mature manifestation of meta-innovation, where transformative potential has developed into large-scale implementation across multiple domains. However, understanding the evolutionary pathways through which more limited initiatives can develop into full-scale meta-innovations provides important insights for both theory and practice.

By recognising these evolutionary dynamics, we gain a more nuanced understanding of how meta-innovation develops over time – from initial visions with transformative potential to mainstream innovations that fundamentally reshape socio-technical landscapes at scale.

7.2.3 Necessary and Sufficient Conditions for Meta-Innovation

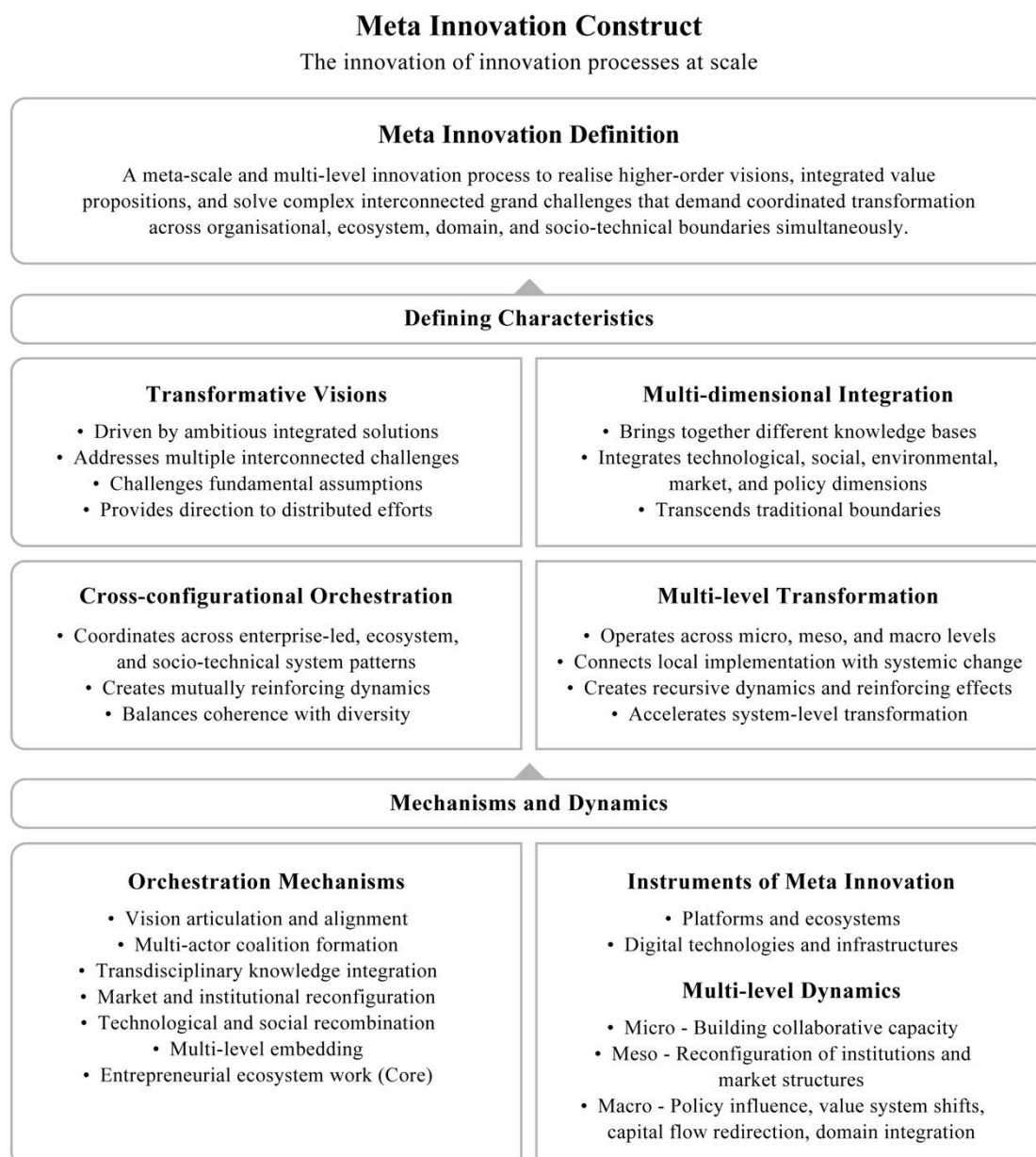
To precisely delineate meta-innovation from adjacent concepts, four necessary and collectively sufficient conditions must be present: First, meta-innovation requires *fundamental* reconfiguration of innovation processes themselves – not merely modifying existing processes but establishing new architectures that transform how innovation unfolds. Second, it demands multi-domain integration across at least three previously separate knowledge domains through transdisciplinary approaches that transcend traditional boundaries. Third, meta-innovation requires multi-level orchestration that operates across micro-practices, meso-structures, and macro-systems concurrently, creating reinforcing dynamics with demonstrable impacts at each level. Fourth, it must embody a transformative vision that integrates diverse value dimensions into a coherent direction for system change.

The absence of any of these conditions would disqualify an initiative from being considered meta-innovation. Without fundamental process reconfiguration, it would merely

represent complex collaboration. Without multi-domain integration reaching the threshold of at least three domains, it would constitute interdisciplinary innovation but not meta-innovation. Without concurrent multi-level orchestration demonstrating impacts across all three levels, it would represent single-level innovation regardless of scale. And without an integrative transformative vision connecting diverse value dimensions, it would constitute fragmented innovation activities rather than meta-innovation.

Figure 8

The Meta-innovation Construct (Source: Author of this thesis)



7.3 Defining Characteristics of Meta-Innovation

Based on the findings from the three papers, meta-innovation can be characterised by several distinctive attributes that collectively represent its multi-dimensional nature.

First, meta-innovation is driven by ambitious integrated solutions or transformative visions that address complex challenges at scale – whether creating integrated mobility systems, regenerating agricultural and natural landscapes, or transforming energy infrastructure – providing direction and coherence to distributed innovation efforts while challenging fundamental assumptions about how systems should function. It simultaneously addresses multiple interconnected challenges that traditional approaches would tackle separately, recognising and engaging with the complex interdependencies between technological, social, environmental, and economic dimensions of systemic challenges.

Second, meta-innovation brings together fundamentally different knowledge bases, capabilities, and institutional logics, transcending the limitations of discipline-specific or sector-specific approaches by integrating scientific, technological, market, user, regulatory, and cultural knowledge in novel configurations. It involves the deliberate restructuring of how innovation itself occurs, creating new pathways for collaborative innovation that transcend traditional organisational and sectoral boundaries, reimagining roles, relationships, and processes rather than simply optimising existing innovation approaches.

Third, meta-innovation achieves cross-configurational orchestration by working across and coordinating multiple innovation configurations simultaneously – enterprise-led, innovation ecosystem, and socio-technical system – recognising that complex challenges often require different configurational patterns working in concert. This orchestration capability enables meta-innovation to leverage the distinctive strengths of each configuration while creating synergistic connections between them, such as coordinating enterprise-level technological innovations with ecosystem-level collaborative arrangements and system-level policy frameworks to achieve transformative impact at scale.

Fourth, meta-innovation operates across multiple scales simultaneously – from local implementations to global frameworks, from individual practices to institutional structures – enabling innovation dynamics that connect micro-level experimentation with macro-level transformation.

Fifth, meta-innovation employs diverse organising mechanisms – including platforms, ecosystems, networks, and novel governance arrangements – as tools to enable coordinated innovation that transcends traditional boundaries, with these mechanisms serving as instruments in service of the broader vision, not ends in themselves. Ultimately, meta-

innovation generates impacts that extend beyond individual products or services to transform broader systems – restructuring markets, reshaping institutional arrangements, and creating new value constellations across domains.

These characteristics distinguish meta-innovation from traditional innovation approaches that focus primarily on individual organisations, technologies, or products. Rather than representing merely a quantitative expansion of innovation scale, these attributes collectively constitute a qualitative transformation in how innovation itself is conceptualised, organised, and directed.

Figure 8 provides a visual representation of the meta-innovation construct, illustrating its defining characteristics, key orchestrating mechanisms, and instruments through which this meta-scale and multi-level innovation process transforms complex interconnected challenges across organisational, ecosystem, domain, and socio-technical boundaries simultaneously.

7.4 Mechanisms and Dynamics of Meta-innovation

The process model of entrepreneurial ecosystem work developed in Paper 3 provides valuable insights into the mechanisms through which meta-innovation unfolds. The seven micro-level practices identified – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – which contribute to six directing processes of mobilising, architecting, manifesting, scaling, integrating and embedding – can be understood as core mechanisms that enable meta-innovation when deployed deliberately to reconfigure innovation processes in ways that transcend traditional boundaries and integrate multiple knowledge domains.

7.4.1 Orchestration Mechanisms

Meta-innovation operates through several key orchestration mechanisms that coordinate innovation activities across diverse actors, knowledge domains, and system levels.

Vision articulation and alignment serve as the primary orienting mechanism for meta-innovation. As demonstrated in the RFM case through framing activities, the articulation of compelling transformative visions provides direction and coherence to distributed innovation efforts. These visions must simultaneously challenge fundamental assumptions about how systems should function while offering concrete pathways for action. Effective meta-innovation visions integrate technological, environmental, social, and economic dimensions rather than prioritising singular objectives.

Multi-actor co-creator recruitment provides the relational foundation for meta-innovation. The co-creator recruitment practices observed in the RFM case demonstrate how entrepreneurs strategically assemble diverse actors with complementary capabilities,

knowledge, and institutional affiliations around shared visions. Unlike conventional partnerships focused on specific transactions, meta-innovation initiatives bring together actors with fundamentally different worldviews, operational logics, and knowledge bases – creating new configurations of expertise and legitimacy.

Transdisciplinary knowledge integration enables meta-innovation by creating novel synthesis across previously separate domains. The co-design activities in the RFM case reveal how entrepreneurs create spaces for multi-actor collaboration that integrate diverse forms of knowledge – technical, market, regulatory, cultural, ecological – to develop holistic understandings of complex challenges and generate innovative approaches that transcend traditional disciplinary boundaries.

Market and institutional reconfiguration establish new transactional structures and governance arrangements through which meta-innovation can function. The value exchange design activities observed in the RFM case demonstrate how entrepreneurs develop new methodologies, tools, and frameworks that enable novel forms of value exchange across traditional boundaries. These mechanisms transform not only how resources, capabilities, and benefits flow between actors but fundamentally redefine what counts as value within and across different domains.

Technological and social recombination provides the practical infrastructure for meta-innovation's implementation. The configuring activities in the RFM case show how entrepreneurs design and evolve technical platforms and social infrastructure that support multi-sided participation and integration across organisational, sectoral, and disciplinary boundaries. Meta-innovation actively combines technological and social elements – recognising that transformative solutions emerge from their novel integration rather than from technological advances alone.

Multi-level embedding institutionalises successful innovation patterns across scales. The instituting activities observed in the RFM case reveal how entrepreneurs formalise governance structures and organisational arrangements that can sustain collaborative innovation over time while allowing for contextual adaptation. These mechanisms ensure that meta-innovation can simultaneously maintain coherence at a system level while embracing diversity in local implementations.

7.4.2 Instruments and Architectural Expressions of Meta-Innovation

To fully appreciate meta-innovation's distinctive contribution, it is important to recognise that many existing innovation concepts represent specific instruments or architectural components that enable meta-innovation. Meta-innovation operates at a higher

conceptual and processual level, employing various organisational, technological, and policy instruments to reconfigure innovation processes at scale.

Platforms and ecosystems *serve as organising architectures* within meta-innovation – providing structural mechanisms through which innovation can be coordinated across organisational boundaries. Rather than being separate from or adjacent frameworks to meta-innovation, these represent some of the key architectural tools through which meta-innovation is operationalised. Different innovation architectures can also be understood as particular configurations of meta-innovation, each emphasising different aspects of how innovation processes are being reimagined at scale.

Innovation ecosystems, as examined in Paper 2 and illustrated through the RFM case in Paper 3, represent architectural expressions of meta-innovation that focus on reconfiguring value creation relationships among complementary actors. They emphasise novel collaborative arrangements, orchestration mechanisms, and governance structures that enable coordinated innovation beyond organisational boundaries. The entrepreneurial ecosystem work observed in the RFM case demonstrates how actors deliberately construct these arrangements through practices like co-creator recruitment, co-design, and value exchange design.

Platforms represent meta-innovation architectures that emphasise technological infrastructure and interaction protocols as coordinating mechanisms. They create efficiency through standardised interfaces while enabling distributed innovation at scale. As identified in Paper 2, platforms often provide the technical infrastructure through which ecosystem-level innovation unfolds. The configuring activities observed in the RFM case show how entrepreneurs develop and evolve these infrastructures to support multi-sided participation and value co-creation.

Socio-technical transitions, as examined in Paper 2 through the socio-technical system configuration, manifest meta-innovation through the deliberate reconfiguration of relationships between technological systems and social practices. They often emphasise policy frameworks, institutional change mechanisms, and long-term transformative visions. Paper 1's expansionary characteristics of innovation alignment and context and impact capture the evolution toward these transition-oriented perspectives.

Across these architectural expressions, common patterns include: the articulation of transformative visions that coordinate distributed innovation efforts, multi-actor collaboration that integrates diverse knowledge domains and capabilities, novel value creation logics that transcend traditional organisational and sector boundaries, cross-scale orchestration that

connects micro-level experimentation with system-level change, and reconfiguration of relationships and processes rather than merely introducing new technologies.

By repositioning these concepts as instruments of meta-innovation rather than adjacent frameworks, we gain a clearer understanding of meta-innovation's integrative contribution. It provides a higher-order conceptual and processual framework for understanding how these various instruments can be deliberately combined and orchestrated to transform innovation processes at scale across organisational boundaries.

7.4.3 Multi-Level Dynamics

A defining characteristic of meta-innovation is its operation across multiple system levels simultaneously. The multi-level impacts observed in the RFM case demonstrate how meta-innovation generates coordinated change across micro (individual actors), meso (organisational networks), and macro (institutional systems) levels while also bridging traditionally separate domains.

At the micro-level, meta-innovation builds collaborative capacity among individual actors through activities that establish trust, shared understanding, and collective capabilities. This includes actor empowerment (positioning participants as central system innovators rather than passive recipients), knowledge integration (incorporating diverse local perspectives), social infrastructure development (fostering community cohesion), practice innovation (creating new operational models), and capability building (developing new skills among local actors).

At the meso-level, it reconfigures institutional arrangements and market structures through activities that establish new coordination mechanisms and value exchange systems. Referencing the RFM case of paper 3, these impacts include institutional innovation (creating novel governance structures), market restructuring (developing new transactional templates), supply chain transformation (establishing new verification frameworks), methodological standards (co-designing new approaches), technical infrastructure (enabling multi-sided participation), and network reconfiguration (integrating previously disconnected actors).

At the macro level, it contributes to system-wide change by influencing policy frameworks, reframing normative values, and redirecting resource flows. This involves policy influence (government adoption of new approaches), value system shifts (societal revaluation of previously undervalued services), capital flow redirection (new investment patterns), domain integration (bridging previously siloed sectors), environmental scale shifts (achieving landscape-level ecological impacts), and governance innovation (creating alternatives to conventional market/state approaches).

Rather than progressing linearly from one level to another, effective meta-innovation orchestrates concurrent transformation across these levels and domains, creating mutually reinforcing dynamics that accelerate system change. This multi-level, multi-domain recursivity – where changes in one area enable and amplify changes in others – represents a distinctive characteristic of meta-innovation that distinguishes it from more limited innovation approaches focused on singular products, technologies, or sectors.

7.5 Meta-Innovation in Practice: Exemplary Cases

To fully grasp the distinctive nature of meta-innovation, it is valuable to examine concrete examples that demonstrate this phenomenon in action. These cases illustrate how meta-innovation manifests through the deliberate reconfiguration of innovation processes at scale across organisational boundaries:

Mission-oriented innovation initiatives like Finland's MaaS, as examined by Kivimaa and Rogge (2022), exemplify meta-innovation through their comprehensive reconfiguration of transportation innovation processes. This case demonstrates how entrepreneurs, policymakers, and diverse actors collectively redesigned how mobility innovation occurs – creating new innovation processes that span public transportation providers, private mobility companies, digital platform developers, catalytic and critical startups, and regulatory bodies. Rather than simply fostering collaboration between existing organisations, MaaS represents a fundamental reconfiguration of how mobility innovation itself is organised, governed, and scaled.

Integrated solutions like Regen Farmers Mutual (RFM), examined in Paper 3, demonstrate how meta-innovation can address complex challenges at the intersection of multiple domains. RFM has reconfigured innovation processes across regenerative agriculture, conservation, environmental markets, supply chain accountability and green finance systems – creating new innovation pathways that were impossible within traditional domain-specific approaches. The entrepreneurial ecosystem work observed in the RFM case represents the concrete activities through which meta-innovation is realised, showing how entrepreneurs can catalyse system-level reconfiguration of innovation processes.

Energy system transformations, such as the solar service ventures examined by Overholm (2015), illustrate meta-innovation through the creation of entirely new innovation architectures. These ventures did not simply collaborate within existing energy innovation structures but fundamentally restructured how solar energy innovation occurs – shifting from product-based to service-based models that reconfigured relationships between technology providers, installers, financiers, customers, and regulators. This case demonstrates how

entrepreneurs collectively shaped an emerging ecosystem through new innovation processes that transcended traditional industry boundaries.

These examples highlight several key characteristics of meta-innovation in practice. They involve the fundamental reconfiguration of how innovation processes operate across organisational boundaries, not merely collaboration within existing structures. They address complex challenges that transcend the capabilities of traditional domain-specific innovation approaches, requiring system-level innovation of innovation processes themselves. They create new innovation pathways that enable value creation across multiple domains simultaneously, often generating previously impossible solutions. They employ various instruments and architectures (platforms, ecosystems, policy frameworks, governance models) in service of higher-order innovation reconfiguration.

7.6 Meta-Innovation Praxis: A Framework for Application

Having explored the concept, characteristics, mechanisms, and dynamics of meta-innovation, we turn to the practical question of how entrepreneurs, policymakers, and organisational leaders can deliberately orchestrate innovation at this meta-scale. The Meta-Innovation Praxis introduced in this section translates the theoretical insights developed throughout this dissertation into a practical framework for application. It builds directly upon the understanding of meta-innovation's nature and mechanisms, offering a structured approach to operationalising these conceptual advances in real-world contexts where transformative change across traditional boundaries is needed.

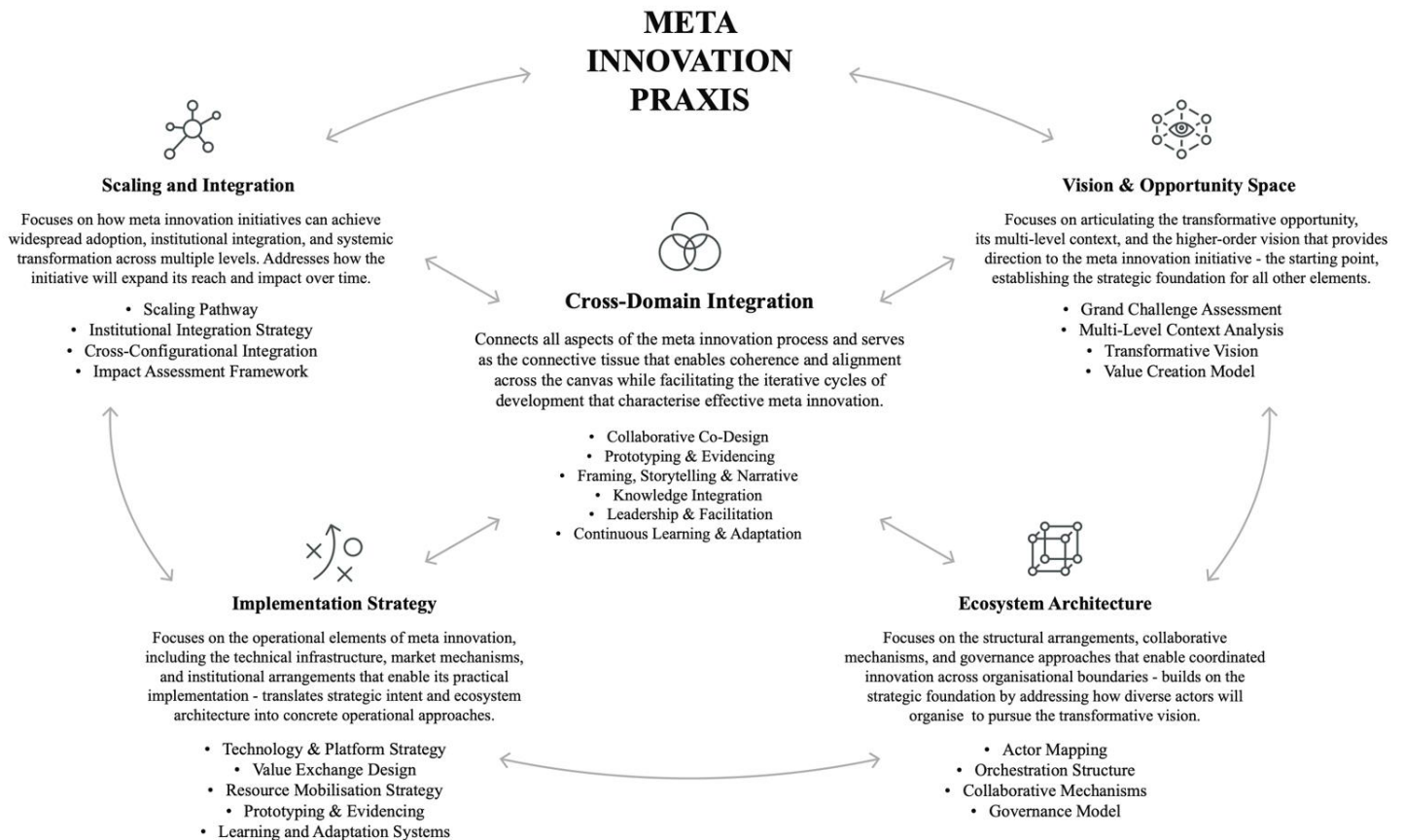
7.6.1 Rationale and Foundations

The Meta-Innovation Praxis provides a structured approach for diagnosing, designing, and directing innovation initiatives that transcend traditional boundaries to address complex, interconnected challenges. It is designed according to five core principles. It integrates theory and practice by translating theoretical concepts into actionable elements while maintaining conceptual integrity. It maintains a MLP that accommodates analysis and design across micro, meso, and macro levels. It demonstrates configurational awareness by acknowledging different patterns of innovation while facilitating integration across configurations. It adopts a practice-based approach that focuses on concrete activities that actors can undertake to orchestrate meta-innovation. It embraces an evolutionary perspective that recognises how meta-innovation develops through distinct phases with different elements becoming more salient at different stages.

7.6.2 Structure and Elements of the Meta-Innovation Praxis

Figure 9

The Meta-Innovation Canvas (Source: Author of this thesis)



The Meta-Innovation Praxis is organised into four interconnected domains that together form a comprehensive framework for orchestrating meta-innovation. Each domain contains specific elements that address key dimensions of meta-innovation (cf. Figure 9). A worksheet to support this praxis framework is included in Appendix A.

Domain 1: Vision and Opportunity Space focuses on articulating the transformative opportunity, its multi-level context, and the higher-order vision that provides direction. Key elements include the Grand Challenge Assessment, which analyses complex, interconnected challenges that traditional approaches struggle to address, mapping their nature, scale, and interdependencies. The Multi-Level Context Analysis examines micro (individual actors), meso (organisational networks), and macro (institutional systems) factors that shape the opportunity space. The Transformative Vision articulates a compelling higher-order vision that challenges fundamental assumptions while offering concrete pathways for action. The Value Creation Model co-designs a collective value proposition that integrates economic, social, environmental, and systemic benefits across multiple domains.

This domain particularly aligns with the mobilising process identified in Paper 3, incorporating the framing and co-creator recruitment micro-practices that establish both conceptual and social foundations for innovation at scale.

Domain 2: Ecosystem Architecture focuses on the structural arrangements, collaborative mechanisms, and governance approaches that enable coordinated innovation. Key elements include Actor Mapping, which identifies key actors whose engagement is essential, including their capabilities, interests, and relationships. The Orchestration Structure designs mechanisms for coordinating distributed innovation activities without hierarchical control, balancing centralised direction with distributed agency. Collaborative Mechanisms develop specific approaches for enabling productive collaboration among diverse actors, including knowledge sharing platforms and co-creation methodologies. The Governance Model designs principles, processes, and structures for collective decision-making and accountability, balancing inclusion with effectiveness.

This domain corresponds to the Architecting Process in Paper 3, incorporating co-design, value exchange design, configuring, and instituting micro-practices that create the structural blueprint and operational prototypes for innovation ecosystems.

Domain 3: Implementation Strategy focuses on the operational elements of meta-innovation. Key elements include the technology and platform strategy, which designs technical infrastructure that enables coordination across organisational boundaries while managing intellectual property, privacy, and security concerns. The value exchange design develops new transactional mechanisms that enable novel forms of value exchange while aligning economic incentives with broader societal goals. The resource mobilisation strategy plans for how financial, human, and knowledge resources will be mobilised and allocated across the innovation network. Prototyping and evidencing creates tangible demonstrations, models, and proof points that validate the approach and build credibility through sequential iterations. Learning and adaptation systems design mechanisms for collective learning, evidence generation, and adaptive governance that enable both rapid iteration and strategic adaptation.

This domain integrates the manifesting process from Paper 3, utilising evidencing, framing, and co-creator recruitment to produce tangible validation while laying groundwork for subsequent scaling.

Domain 4: Scaling and Integration focuses on how meta-innovation initiatives can achieve widespread adoption and systemic transformation. Key elements include the Scaling Pathway, which plans for how the initiative will expand its reach, deepen its impact, and

achieve critical mass while balancing standardisation and contextual adaptation. The Institutional Integration Strategy develops approaches for embedding the initiative within established structures and practices through alignment with policy frameworks and industry standards. Cross-configurational integration strategises for orchestrating connections between different innovation configurations to create mutually reinforcing dynamics. The Impact Assessment Framework provides methods for evaluating outcomes and impacts across multiple levels and domains, balancing accountability with learning.

This domain incorporates the scaling, integrating, and embedding processes from Paper 3, focusing on expanding operational reach, establishing socio-technical connections, and embedding the innovation within broader institutional contexts.

The Central Hub: Cross-domain integrative elements serve as the connective tissue that enables coherence and alignment across the praxis. Five core elements form this central hub. Prototyping and Evidencing creates tangible demonstrations that test assumptions, build credibility, and enable learning across all domains. Collaborative co-design brings diverse actors together to collectively shape the initiative, building ownership and relational capital. Storytelling and narrative development creates shared meaning that enables collective action, translating complex challenges into coherent stories and aspirational visions. Knowledge Integration connects diverse forms of expertise across technical, contextual, experiential, and institutional domains. Leadership and facilitation provides essential guidance, typically distributed rather than centralised, balancing direction with emergence.

These cross-domain elements operate simultaneously and reinforce each other, creating the dynamic, recursive processes that give meta-innovation its distinctive character. By strengthening these integrative processes, initiatives can achieve greater coherence, adaptability, and impact across the entire meta-innovation journey.

7.6.3 Practical Value and Limitations

Meta-innovation offers several distinct practical benefits for those orchestrating innovation at scale. It provides structured approaches for navigating the multi-domain, multi-actor nature of complex innovation challenges. It establishes a common language that facilitates alignment and communication across diverse stakeholders. Through systematic integration, it connects strategic, structural, operational, and scaling considerations that are often treated separately.

Despite its practical value, meta-innovation has several limitations that should be acknowledged. It is designed for complex, multi-domain challenges and may be unnecessarily elaborate for simpler innovation contexts. Effectively orchestrating meta-innovation requires

facilitation skills, systems thinking capabilities, and experience with multi-stakeholder processes that may not be widely available. While theoretical frameworks provide structure, real-world meta-innovation is inherently messy and emergent, requiring judgement and flexibility from practitioners.

7.7 From Disruptive Innovation to Meta-Innovation: A Transformative Journey

This dissertation has traced a significant intellectual journey – from the well-established concept of disruptive innovation to the emergence of meta-innovation as a higher-order phenomenon. What began as an investigation into how disruptive innovation has evolved since Christensen’s original conceptualisation has revealed a fundamental transformation in how innovation itself unfolds in contemporary contexts.

The journey through the three papers in this dissertation reveals a clear progression. In Paper 1, we examined how disruptive innovation has expanded beyond its original firm-centric focus to encompass broader ecosystem-level processes with societal transformation potential. Across four expansionary characteristics – value creation, market evolution, innovation alignment, and context and impact – we observed disruptive innovation’s evolution from a competitive market positioning concept to a multi-dimensional force for systemic change.

In Paper 2, we identified three distinct configurations through which this expanded phenomenon manifests – enterprise-led, innovation ecosystem, and socio-technical system. These configurations demonstrate how disruptive innovation has progressed from firm-level strategies to collaborative ecosystem arrangements to transformative socio-technical transitions, each with distinctive characteristics, mechanisms, and impacts.

In Paper 3, we illuminated the purposeful and reflexive process of ecosystem work through which entrepreneurs direct disruptive innovation ecosystem emergence, development, and integration through specific micro-practices. The seven micro-practices identified – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – contribute to six directing processes – mobilising, architecting, manifesting, scaling, integrating, and embedding – across three developmental stages – ecosystem co-design, ecosystem co-development, and ecosystem readiness. These practices revealed how entrepreneurs orchestrate complex collaborative arrangements that transcend traditional organisational boundaries.

The intellectual progression across these papers has uncovered meta-innovation as a qualitatively distinct phenomenon. Where traditional innovation approaches tend to focus on singular domains or challenges, meta-innovation deliberately works across technological, social, environmental, and economic dimensions in ways that generate transformative impact

across multiple systems simultaneously. This represents innovation at scale that achieves higher-order visions and addresses complex interconnected challenges across traditional boundaries.

The significance of this progression from disruptive innovation to meta-innovation lies in the transformative synthesis it creates. It fundamentally alters how we perceive, study, and practise innovation in three critical ways:

From Competitive Disruption to Collaborative Transformation. Where disruptive innovation traditionally focused on how individual firms could challenge incumbents through market entry strategies, meta-innovation orchestrates multi-actor collaboration to transform complex interconnected challenges and opportunities at scale. This shift moves beyond competitive positioning to harness collective innovation capacity for achieving higher-order visions that span multiple domains, sectors, and scales simultaneously.

From Static Structures to Dynamic Processes. While disruptive innovation often centred on product, technology, or business model innovations as discrete entities, meta-innovation consciously designs and orchestrates innovation as a dynamic, evolving process that actively reshapes socio-technical landscapes. This perspective enables the deliberate reconfiguration of innovation processes themselves to address the distinctive characteristics of contemporary challenges.

From Innovation as Outcome to Innovation as Transformative Force. Where disruptive innovation typically focused on market outcomes and competitive dynamics, meta-innovation harnesses innovation as a transformative force capable of fundamentally reconfiguring entire socio-technical systems. This reconceptualisation enables purposeful transformation of complex interconnected challenges across technological, social, economic, and ecological dimensions simultaneously.

The progression from disruptive innovation to meta-innovation does not represent a rejection of Christensen's original insights but rather their evolution and expansion to address the distinctive characteristics of contemporary challenges. The institutional fragmentation, complex interdependencies, distributed resources, and conducive preconditions that define today's grand challenges necessitate this evolution toward meta-innovation approaches.

7.7.1 Future Research Directions

This dissertation opens numerous promising avenues for future research that could further advance our understanding of meta-innovation and its application to complex societal challenges. Several key directions warrant particular attention:

Comparative Studies Across Contexts and Domains. While the RFM case provides valuable insights into meta-innovation in the context of regenerative agriculture and environmental markets, comparative research across different sectors, regions, and types of challenges would strengthen our understanding of meta-innovation's general patterns and context-specific manifestations. Studies examining meta-innovation in domains such as healthcare transformation, urban mobility, energy transitions, and digital inclusion could reveal both common mechanisms and domain-specific adaptations. Of particular interest would be research investigating how meta-innovation unfolds in diverse institutional contexts, from highly developed economies to emerging markets, and from strong regulatory environments to more fluid governance settings.

Meta-Innovation Capabilities and Leadership. Research into the capabilities that enable effective meta-innovation could advance understanding of how these can be developed at both individual and organisational levels. What distinctive competencies, mindsets, and skills enable entrepreneurs, communities, organisations, and institutions to effectively orchestrate innovation at scale across traditional boundaries? How do the leadership approaches identified in the RFM case – facilitative rather than directive leadership, distributed authority, balancing vision with pragmatism, multi-level awareness, and temporal patience – transfer to other contexts, and how can they be cultivated? This research direction would have particular value for educational institutions and capability-building programmes.

Evolution of Governance Arrangements. Studies investigating the evolution of governance arrangements across the developmental stages of meta-innovation could illuminate how ecosystems balance strategic direction with distributed ownership and agency. How do governance models adapt as meta-innovation initiatives progress from co-design through co-development to maturity? What governance innovations enable both coordination at scale and contextual adaptation? What models best preserve core values and principles while enabling maximum participation and contribution? This research direction could draw on insights from both platform governance and collaborative governance literatures.

Meta-Innovation in Digital Contexts. As digital technologies increasingly enable new forms of coordination and collaboration at scale, research examining the interplay between digital platforms, AI and Large Language Models and meta-innovation processes could yield important insights. How do digital technologies enable or constrain the orchestration of multi-actor innovation across boundaries? What new possibilities do emerging technologies like AI, distributed ledger technologies, and digital twins create for meta-innovation? How can the

tension between standardisation (necessary for efficiency) and contextual adaptation (necessary for effectiveness) be navigated in digital contexts?

Policy Frameworks for Meta-Innovation. Studies exploring how policy frameworks can effectively support meta-innovation without limiting entrepreneurial agency would provide valuable insight for both theory and practice. What policy approaches enable rather than constrain meta-innovation? How can policy instruments facilitate boundary-spanning collaboration while ensuring accountability and impact? How might regulatory sandboxes, innovation precincts, challenge-driven innovation programmes, and other policy innovations contribute to meta-innovation? This research direction could inform more sophisticated approaches to innovation policy that move beyond traditional R&D funding and technology push models.

Evaluation and Impact Assessment. Research developing more nuanced approaches to evaluating the multi-level impacts of meta-innovation could advance our ability to assess its effectiveness and guide its evolution. What evaluation frameworks can capture changes simultaneously occurring at micro, meso, and macro levels? How can both process outcomes (e.g. ecosystem development) and substantive outcomes (e.g. challenge resolution) be meaningfully measured? What indicators best capture the transformative potential of early-stage meta-innovation initiatives? This research direction would have particular relevance for funders, policymakers, and practitioners seeking to direct resources toward high-impact approaches.

Meta-Innovation in Addressing Grand Challenges. Studies explicitly examining how meta-innovation approaches can be applied to grand challenges such as climate change, biodiversity loss, social inequality, and public health crises could provide valuable guidance for practitioners. How can meta-innovation frameworks be tailored to the specific characteristics of different types of grand challenges? What patterns of orchestration are most effective for different challenge domains? How can meta-innovation approaches overcome the structural barriers that have limited progress on these challenges to date? This research direction has particular urgency given the scale and complexity of the challenges societies currently face.

Cross-Disciplinary Integration and Theoretical Synthesis. Meta-innovation inherently spans multiple theoretical domains, suggesting a critical need for research that deliberately bridges traditionally separate disciplines. Future studies could productively integrate insights from transition studies, innovation management, strategy, platform and ecosystem research, policy studies, institutional theory, and complex systems science to

develop more holistic frameworks. How might the MLP from transition studies be combined with ecosystem orchestration approaches from innovation management? How can platform governance insights be integrated with institutional design principles from policy studies? What new theoretical frameworks emerge when these diverse perspectives are brought into conversation? Such cross-disciplinary research would not only advance theoretical understanding but also better reflect the integrated nature of the challenges meta-innovation addresses. This research direction could help overcome the academic siloing that often mirrors the institutional fragmentation meta-innovation seeks to address in practice. Collaborative research teams spanning disciplinary boundaries could model the very integration they study, potentially developing new methodological approaches and conceptual frameworks that transcend traditional academic divisions.

By pursuing these research directions, scholars can further develop the concept of meta-innovation while simultaneously generating practical insights that can guide entrepreneurs, policymakers, and organisational leaders in addressing our most pressing societal challenges. The meta-innovation construct offers not only a theoretical contribution but a platform for developing more effective approaches to transform our world for the better.

7.8 Conclusion

In conclusion of this dissertation, the true significance of this journey from disruptive innovation to meta-innovation lies in its generative potential – in the new possibilities it creates for transforming our most complex societal challenges. By tracing disruptive innovation's evolution and identifying meta-innovation as an emergent phenomenon, this research opens pathways for more powerful approaches to simultaneously transforming interconnected challenges at scale.

In an era defined by unprecedented challenges – from climate change to digital transformation to sustainable development – meta-innovation offers a framework for how societies can consciously redesign their innovation processes to transform these challenges simultaneously rather than separately. By orchestrating how innovation unfolds across organisational, ecosystem, domain, and socio-technical boundaries, we can develop approaches to transformation that match the interconnected nature of contemporary challenges.

The concept of meta-innovation emerged from the study of disruptive innovation but ultimately transcends it, offering a higher-order framework for purposefully transforming complex interconnected challenges at scale. This transcendence represents not an abandonment of Christensen's insights but their evolution into a more comprehensive approach capable of addressing the distinctive characteristics of contemporary challenges.

The journey from disruptive innovation to meta-innovation also illuminates how innovation theory itself evolves. Rather than static concepts that remain fixed over time, theories of innovation must themselves demonstrate the adaptive, evolving quality they seek to explain. By tracing this evolution and articulating meta-innovation as an emerging construct, this dissertation contributes not only to our understanding of innovation but also to how innovation theory itself progresses to address new classes of challenges.

In the final analysis, this dissertation reconceptualises how we understand and harness innovation to transform complex interconnected challenges. By articulating the journey from disruptive innovation to meta-innovation, developing the Meta-Innovation Praxis as a practical framework, and illuminating the entrepreneurial ecosystem work through which transformation unfolds, this research contributes to our understanding of how complex collaborative innovation can be orchestrated across traditional boundaries. While building on existing knowledge in innovation studies, transition research, and ecosystem theory, it offers an integrative perspective that may help practitioners better navigate the complexities of addressing complex interconnected challenges and opportunities at scale.

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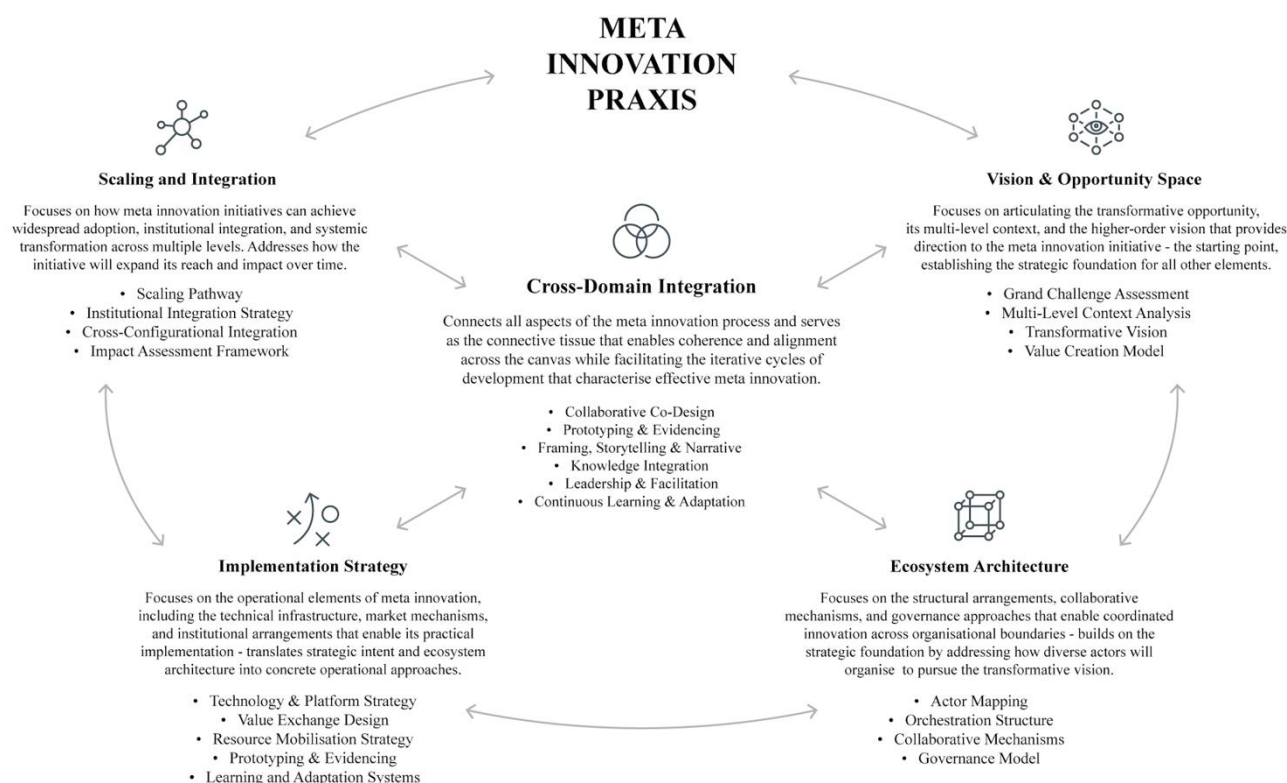
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APPENDIX A: META-INNOVATION PRAXIS WORKSHEET

This worksheet provides a structured set of questions to guide teams through the application of the Meta-Innovation Praxis. The questions are organised according to the four domains and central hub of cross-domain elements. Teams should adapt these questions to their specific context, focusing on areas most relevant to their initiative's current phase and challenges.



PART 1: VISION AND OPPORTUNITY SPACE

Grand Challenge Assessment

What complex, interconnected challenges is your initiative addressing?

Why have traditional innovation approaches failed to solve these challenges?

What are the key interdependencies between technological, social, economic, institutional, and environmental aspects of these challenges?

What windows of opportunity exist in the current landscape that create favourable conditions for transformation?

How might these challenges evolve if not addressed effectively?

Multi-Level Context Analysis

Micro-level: What capabilities and constraints exist among individual actors (people, organisations) in this space?

Meso-level: How are current networks, industry structures, and markets configured in ways that enable or inhibit innovation?

Macro level: What institutional arrangements, policies, cultural norms, and societal trends shape the broader context?

Where are the key leverage points across these levels that could catalyse systemic change?

What assets, capabilities, and relationships already exist that could be mobilised for transformation?

Transformative Vision

What higher-order vision could align diverse stakeholders around shared aspirations?

How does this vision challenge fundamental assumptions about how current systems function and what they value?

What specific future state are you aiming to create through meta-innovation?

How does this vision connect to broader societal goals and transitions?

How can this vision be expressed in ways that resonate with different stakeholder groups?

Value Creation Model

What specific forms of value will your initiative create for different stakeholders?

How will your approach integrate economic, social, and environmental value creation?

What novel value combinations become possible through cross-domain integration?

How will value be distributed fairly among ecosystem participants?

What new metrics might capture the multi-dimensional value created through your approach?

PART 2: ECOSYSTEM ARCHITECTURE

Actor Mapping

Which diverse stakeholders must be engaged to address the full complexity of the challenge?

What complementary capabilities, resources, and legitimacy do these stakeholders bring?

What are the motivations, incentives, and constraints for each key stakeholder group?

Where are there gaps or misalignments in the current actor network?

Which actors could play pivotal bridging or catalytic roles in the ecosystem?

Orchestration Structure

How will coordination be achieved without relying on hierarchical control?

What decision-making processes will enable both coherence and distributed agency?

What specific roles are needed for effective ecosystem orchestration?

How will information flow effectively between diverse participants?

How might orchestration mechanisms evolve as the ecosystem develops and matures?

Collaborative Mechanisms

What specific approaches will facilitate productive collaboration across organisational boundaries?

How will you enable knowledge sharing while respecting intellectual property concerns?

What digital and physical spaces will support co-creation among diverse participants?

How will you navigate different working cultures, languages, and time zones?

What mechanisms will help resolve conflicts and build trust among participants?

Governance Model

What core principles will guide collective decision-making and accountability?

How will you balance inclusivity with operational efficiency in governance?

What formal and informal mechanisms will ensure accountability to shared objectives?

How will resources be allocated fairly and transparently?

What governance structures will enable both stability and adaptability as the initiative evolves?

PART 3: IMPLEMENTATION STRATEGY

Technology and Platform Strategy

What technical infrastructure will enable coordination across organisational boundaries?

How will platforms balance standardisation with flexibility to accommodate diverse participants?

What data architectures will facilitate sharing while protecting sensitive information?

How will you address interoperability with existing systems and platforms?

What approaches will ensure appropriate data sovereignty, privacy, and security?

Value Exchange Design

What new transactional mechanisms are needed to enable novel forms of value exchange?

How will you align economic incentives with broader societal and environmental objectives?

What approaches will help overcome market barriers or failures in this domain?

How will these market mechanisms maintain integrity while achieving scale?

What existing market structures need to be transformed, and how?

Resource Mobilisation Strategy

What mix of financial resources will support different phases of development?

How will you mobilise and develop the human capabilities needed across the ecosystem?

What knowledge resources must be integrated from different domains and levels?

How will you secure long-term support for systemic change beyond initial funding?

How will resource allocation evolve as the initiative progresses through different phases?

Prototyping and Evidencing

What sequential prototyping strategy will test critical assumptions while managing resources?

How will you design prototypes that test multiple elements of the canvas simultaneously?

What forms of evidence will most effectively demonstrate value to diverse stakeholders?

How will you ensure prototypes balance conceptual clarity with practical feasibility?

What learning objectives will guide each stage of prototyping and evidencing?

Learning and Adaptation Systems

How will you capture learning across diverse participants and contexts?

What feedback mechanisms will connect implementation insights with strategic direction?

How will you balance exploration of new possibilities with exploitation of proven approaches?

What processes will help identify and respond to emergent patterns and unintended consequences?

How will collective reflection be built into regular operations and governance?

PART 4: SCALING AND INTEGRATION

Scaling Pathway

What strategy will guide expansion of the initiative across geographical contexts?

How will you balance standardisation and local adaptation during scaling?

What network effects or reinforcing dynamics might accelerate adoption?

What critical thresholds must be reached to achieve transformative impact?

How will you manage growth while maintaining quality and integrity?

Institutional Integration Strategy

How will this initiative connect with and influence existing institutional structures?

What policy changes or regulatory adaptations might support broader adoption?

How will you navigate institutional barriers or resistance to system change?

What approaches will help embed new practices within established organisational routines?

How will you balance disruption of outdated systems with integration into valuable existing structures?

Cross-Configurational Integration

How will enterprise-level, ecosystem-level, and system-level innovation be aligned?

What interfaces will connect different innovation configurations operating at various scales?

How will you ensure coherence across configurations while respecting their distinctive dynamics?

What orchestration mechanisms will facilitate productive interaction across configurations?

How might different configurations support and accelerate each other?

Impact Assessment Framework

What multi-dimensional metrics will capture the full range of initiative impacts?

How will you assess outcomes across micro-, meso-, and macro-system levels?

What baseline measurements are needed to demonstrate transformation over time?

How will impact assessment feed back into ongoing learning and strategic adaptation?

What approaches will help attribute complex systemic changes to specific interventions?

PART 5: CENTRAL HUB – CROSS-DOMAIN ELEMENTS

Cross-Domain Prototyping and Evidencing

How will your prototyping strategy test elements across multiple praxis domains simultaneously?

What forms of evidence would be most compelling to diverse stakeholders across the ecosystem?

How will you sequence prototypes to build credibility while managing resources effectively?

How will evidence from early prototypes inform later development across all domains?

How might participatory prototyping strengthen relationships within the ecosystem?

Collaborative Co-Design

How will co-design principles be applied consistently across all praxis domains?

What co-design methods are most appropriate for different stakeholder groups and contexts?

How will you ensure diverse perspectives are integrated throughout the design process?

What capabilities need to be developed to enable effective co-design across the initiative?

How will co-design processes evolve as the initiative matures?

Storytelling and Narrative Development

What core narratives will help translate complex challenges into accessible stories?

How will you adapt storytelling approaches for different audiences and purposes?

What visual and experiential elements will complement verbal narratives?

How will narratives evolve to incorporate new learnings while maintaining connection to core purpose?

What channels and formats will most effectively communicate/share your initiative's value and impact?

Knowledge Integration

How will you bring together technical, contextual, experiential, and institutional knowledge?

What processes will enable effective sharing across organisational and disciplinary boundaries?

How will you navigate different epistemologies and ways of knowing?

What platforms or tools will support collaborative knowledge development?

How will integrated knowledge be documented and made accessible to diverse stakeholders?

Leadership and Facilitation

How will leadership be distributed across the initiative based on context, expertise, and legitimacy?

What facilitation approaches will create spaces for productive collaboration?

How will you navigate diverse stakeholder interests while maintaining momentum?

What leadership capabilities need to be developed across the ecosystem?

How will leadership approaches evolve through different developmental phases?

PART 6: IMPLEMENTATION PLANNING

Phase-Specific Planning

Which phase of meta-innovation development is your initiative currently in?

What are the critical activities and focus areas for this phase?

What milestones will indicate readiness to move to the next phase?

How should praxis elements be prioritised based on your current phase?

What foundation-building activities are needed now to enable future success?

Multi-Level Integration

How will your initiative create coherent patterns of activity across micro, meso, and macro levels?

What communication approaches will translate system-level visions into locally meaningful narratives?

How will you design participation mechanisms that empower individual actors?

What coordination mechanisms will align distributed activities across organisational networks?

How will you connect with institutional structures to achieve systemic impact?

Action Planning

What are the immediate next steps for implementing insights from this praxis?

Who will be responsible for leading different aspects of implementation?

What resources are needed to support these initial activities?

How will progress be monitored and shared with ecosystem participants?

When and how will you revisit and refine the praxis as the initiative evolves?

APPENDIX B: INTERVIEW TRANSCRIPTS

Co-Founders

I just wanted to use today to orientate and to kind of get the beginning of the story, so that I can actually find things to build on and maybe connect with others over time. I thought what I would do is, I would just share with you what I'm trying to work on. Over the last 2 years, I've been – can you see that?

Yes, I can, I love that you've got context at the top. Very cool.

I think it's like so defining in so many ways. So, basically what I've been working on over the last 2 years is a paper on Looking at Disruptive Innovation, but I've been very, very curious about how it has started moving into an ecosystem direction and so where my paper lands-up and where my research starts now, is to look at two disruptive innovation typologies that the researchers highlighted.

So, the first one here is Ecosystems at Disruptive Innovation, which is where multiple parties come together to disrupt around a collective value proposition. But the one that really interests me is this Meta Grand Disruptive Innovation which one starts seeing where multiple ecosystems start gravitating around a bigger idea and obviously with climate change and climate mitigation, that's one of the big ideas around which a lot of collaboration is happening, so you find that you have policymakers starting to develop policies that support sustainable cities and then you have a business ecosystem that is innovating around mobility solutions or collaborative economy and so you find that there is a disruption that occurs across ecosystems and at a societal level it becomes transformative to society.

I've been looking for cases where that seems to be at play and to look at how that form of Disruptive Innovation that collaborative form of Disruptive Innovation emerges and comes about. What are the dynamics in that? What is present in the context that support that, how that changes the way the collective, procreates, engages in marketplace and you know achieves a result.

I'm excited about Regen and Farmers Mutual because I feel like it really sits in that space. You know, if it starts here, it certainly feels like it's moving to the space and you know technology is like the spirit of nature, for example, really help with that in terms of catapulting it out of our physical limited world, geographically defined world, into a shared virtual world that latches onto our real world.

That's what I'm really interested in and I'm hoping that in looking at Regen, you know we can find some learnings in that, in terms of how that comes about more successfully.

Sure

Does that make sense?

It does and I congratulate you for going for such a grand ambition as to raise how these things happen. Because, I mean yeah, I'm curious, I guess. Yes, let's dive in and see if I can be helpful?

Okay, so really what I wanted this 1st interview to do was really to help me understand more about Regen Farmers Mutual, where you are right now, who are all the key players, right from the beginning to where you are now and how that is, probably changed also, really understanding how context has been helpful/unhelpful. So, really just to start the conversation there and maybe pick-up later on other pieces or if you could be helpful in terms of just pointing me to other people to have conversations with as well, that would be wonderful.

So, I think really just to hand it over to you and ask you to tell me the story, you know a little bit about yourself. I know that you and Rohan obviously are the key architects here and I've watched all the videos, well most of them and you know, have a sense of what's gone down. But it would be nice to hear from you in terms of where it started for you.

Sure, and thank you for taking the time to watch the videos. Just so I can place it. We did a lot of the video recording of the initial co-design that we did with farmers and I'm wondering if you watched those or whether you've watched the more recent stuff that we've put out and what's inspired the curiosity or was it literally you know, Emmanuel said, check out Wardy's stuff and yeah like I don't want to bore you.

No, no, no I don't mind you going over stuff I know. Because it also gives me the opportunity to stop and maybe ask questions as we go along. But how I discovered you was that I was speaking to Rob Allen of (name) Ecosystems because that's the other care study that I'm really interested in looking at. Emmanuel said, oh then you've got to speak to Wardy because this you'll find interesting. So, in order to understand, because it was also a new concept, it was like I was really excited, you know what you were doing in terms of transforming, farming landscapes into environmental goods and services – it was very exciting.

I spent time just looking at the core concept that you were selling or just showing people and then I looked at your process with farmers and your process of learning your way together into what Regen Farmers Mutual was to become.

Yeah, fair enough. For brevity sake then, I can talk now about you know answer the questions that you've put up but I've also got a video that was less than a week old which is really talking about our current situation, so that might help you put some context to, if you've watched the

co-design videos and then you watch where we are today, you can make a determination as to, well how effective were they, the original idea to the current idea and whether that is even a problem or an indicator or something – you can make that determination. So, checkout that YouTube.

Okay great.

So, you had some questions up there. In terms of background, there's a long story here, so I'll start with that.

My late father was a really interesting fellow. He was born and bred in the country in the bush – we call it in Australia. But he got in the early 70's what was then a new technology called "irrigation" and by the late 70's/early 80's he had been asked to become an Irrigation Manager for this new crop called "Cotton" which had come to Australia. He took a job out a long, long way from the Metropolitan areas in the Far West of Northwest of New South Wales.

I grew-up in quite an isolated area but because of irrigation they were able to provide water to a really hot environment and grow an amazing amount of cotton. So, by the time my late father was in his early 30's, a business that he had come into as the Irrigation Manager and then got made the General Manager and then the CEO and then ultimately the Managing Director, he took, and he listed it on the Stock Exchange in Australia. It was the second largest listing in 1987/1988 and so growing-up I didn't know any different, I was a kid but I'd seen what corporate agriculture could do and then you would think that somebody who's experienced a rise in their career of adopting technology and doing the most modern things in agriculture, would sort of continue in that path, but that was an interesting person and he had identified that actually even though he had been doing what was considered the best science of the day, he'd actually managed dam to rivers, changed the whole landscape, introduce a very thirsty, water intensive monoculture, which by its nature encouraged the local pests and so he then ended up introducing Broadacre Herbicides and Pesticides into what was relatively a pristine environment and he thought, ah man I've kind of fucked-up there. So, he'd been given awards and told what a great job he'd done but in his own mind, he determined that it wasn't so good, he'd actually then had like a second half of his career which was the latter 30's which was introducing Holistic Management, which came out of the work of Allan Savory and Jan Christian Smuts, both African, you know thinkers and in that, their attempt is to create decisions that are environmentally, socially and financially sound.

So, my late father started a second career after this corporate agricultural career, trying to help farmers move from conventional agriculture, spray, monoculture, irrigate high input, high yield, you know all of that into how do you work with nature, used by a mimicry, recognize

that you're part of the environment and actually build your natural capital and so over the 20 odd years that he took 6 000 farmers through in Australia that journey of opening their eyes to the benefits and perils of corporate agriculture and the benefits and perils of corporate agriculture and the transition to what we would today call regenerative agriculture.

So, personal stories that having had that kind of holistic management and regenerative agriculture story and that lived experience, I went off to Ag Science and I didn't kind of agree with what I was being taught which was how to put on massive amounts of herbicide and insecticide and pesticide. So, I ended up pulling out and starting a dot com – this is pre-Google, a search engine and I was pretty enthusiastic and young, and the internet was hot. So, I manage to attract investment and had a great idea until it went to shit and at that point I'd lost a lot of my friends and family money in a kind of dot bomb and I managed to start a massage business which I still own - 21 years later – it's still runs and that massage business didn't require any startup capital, it was my hands and personality and so I was able to get that business – it was a very fast growing business – it was nationally in Australia well-recognised and so yeah it provided me with the cash to do things that were my passion.

My passion was all about how do you get communities and by mimicry and holistic thinking happening which led to me learning about equity crowd funding and how large groups of people could come together and own a business and benefit from that business. That got me into cooperatives and then it was in my meeting Rohan Clarke, who's the other co-founder of Regen Farmers Mutual. Then we worked together for three or four years just seeing how each of us did their thing within the cooperative sector and just before the pandemic, like early 2020 Rohan and I started working together in a business that I had called Ethical Fields and when the pandemic happened it was sort of a unique opportunity to create courses in co-design because Rohan and I were both Directors of Incubator Coop, an incubator for startup cooperative and member-owned enterprises. We would help new groups of people form new cooperatives and mutuals and we thought, we were hearing a lot of the farmers from my world saying, oh this carbon market is looking very dodgy, and our own experience had told us wherever there is a market failure, there's typically an opportunity for a cooperative.

So, we said to the farmers that maybe we should run a course, we're all in lockdown and explore where the cooperative of Mutual might be useful as the environmental markets and agriculture kind of merging together, whether that's best left to all the startups and the high techs and the venture capitalists and the investment banks or whether we as farmers should have like an entity that represents us as we're interfaced with all of those organisations. So, you've watched all the co-design videos? Out of that, the farmers really created what has

become Regen Farmers Mutual and they asked Rohan and I to become the first two employees and Rohan's story is equally interesting, well probably more interesting honestly.

(Laughter) But he's a bit like my dad, he's had two careers, his first career was as an outstanding financial markets person, so he came out of Union and went to one of the big four banks here and became like a credit guy and then he got put on the foreign exchange desk in New York and then he ended up starting a desk which is like a department within an investment bank around base metals and energy. Then eventually, into corporate finance where they built a business that they sold to Lehman Brothers ahead of the collapse at the peak of the market.

Wow

So, he must have many, many, many millions but being an investment banker and at the same time got a huge burnout, wife and he split, he ended up with the kids and the second part of his life was, how do I do something more meaningful than click the ticket as an investment banker. He entered into the cooperative sector, and he went into an area as well in conservation finance, because there's lots of grains and conservationists who talk about how we're going to monetise the environment but have never fucking – sorry – but have never done anything.

(Laughter) In business or in financial market things. So, he was a leading kind of doer and thinker in the conversation finance space and so we both share the common interest and passion around cooperatives and mutuals and I had the Regen Ag experience, and he had that conversation finance and deep financial market experience. So, collectively we had then been asked by the farmers to be the first of employees of this mutual that was co-designed. They didn't have any money, so they said your first job is to raise the money and build the technology. So, we went to crowdfunding and that's something that I have a bit of experience with because that was my path into cooperatives. We raised, well initially \$500 000 but a total of \$800 000 using small-scale offers and crowdfunding to attract 150 odd investors who own the portion of Regen Farmers Mutual's subsidiary. So, without boring you. Mutual doesn't have shares, it's a company limited by guarantee and every farmer therefore has one member, one vote. There aren't any shares, so you don't have somebody controlling it that's really big and someone with the minority interest. They've just got one share, one vote.

But that's good for, you know, creating a collaboration but it's shit for raising financing, so one of the things that we've found is the environmental market is very different to agriculture where in agriculture you grow a ton of wheat, you sell a ton of wheat and you get paid for a ton wheat or wool or beef or whatever - horticulture.

But, if you are in the environmental market, it's nothing like as tangible, the buyers are buying data that tells them there's a tree in the paddock and the paddock is here and the tree is of this

type and the Kuala who lives in that tree and you want certainty around that data and what we came to understand was farmers you know, needed to control their data collection and also the platform that they collected their data on, so we created a subsidiary of the Mutual and then we sold down a portion of that subsidiary to the 145 individuals. That gave us the money to then build the technology and employ ourselves. Okay fast forward.

What did you call that subsidiary. Sorry, what was that subsidiary called?

Oh Regen Digital.

Uh so that's Regen Digital. Okay.

Yeah. Fast forward and we went okay, we've now got a Mutual and a subsidiary which is controlled by the Mutual and the other shareholders are people who bought into the vision of what we're doing. We opened the doors for members about 12 months ago because we finally had a product called The Digital Twin which enables farmers to replicate their real-world farm in a digital data-store with a map. Then they can continue to collect and analyse and share the data from their store, to prove what they're doing for the environment for carbon markets or biodiversity markets or to their supply chain when they ask them, well do you have any deforestation and what are your animal welfare credentials and are you doing the right thing? It's built on open-source technology, and we found a group of 50 odd ad-tech and environmental software in the United States called OpenTeam.community. Built in open-source software around a drupel piece of technology to create farmOS and then we used other pieces of open-source technology to create the Digital Twin. It's not distributed technology per se. We think when you're going to trade under smart legal agreements with your supply chain, that might be on a ledger but for now it's just an open-source ag tech and the reason why we wanted it to be lo-fi is that we want farmers, if they don't feel we represent them, to have a real low-cost of exit, so they could spin-up their own server at home and put their Digital Twin on that. They wouldn't have to be a part of the Mutual.

Now, obviously most farmers don't have a server at home and we're not going to spin-up a new instance and be part of the Mutual is having the Digital Twin and being able to collect your information. So, you know it's more about the options there for the farmers and what we also, I guess found was that by being farmer-owned and by using open-source and learning through co-design and being really transparent about what we were doing. It has enabled other organisations to support us and help us on the journey. Some of them are like government departments, the Department of Agriculture is like great, we're not allowed to pick winners, but we can invest in open-source technology because then anybody can use it and we happen to use open-source technology. It allows philanthropy or charity that is collecting money from

diners, and they can't go around and give little bits of money to individual farmers, but they can provide money to the Mutual which is an aggregation of individual farmers, and we can put that to good use.

Some of the cool things that we've done, I guess by learning we started off opening the doors for members all around the country and then you kind of run into this scale thing. If you had one member in one part of, what's it – a big country, how do you support them? You're after landscape, aren't you? So, you're after farmers that are close together?

That's right, so working with groups of farmers and going through essentially an incubation process, what can we do individually and collectively as farmers in this landscape will have both an environmental win and an economic win. Because when you've got those two things, it's purely regenerative. If you've got like an economic win and an environmental loss, really, it's mining your future natural capital and if you've got an environment win and an economic loss then you've got like a conservation which isn't regenerative agriculture either. So, you need to have both an economic and environmental profit in order to be regenerative.

So, these LIPs and bringing groups of farmers together, has turned out to be really a smart thing because it is enabling smaller farmers that wouldn't be able because of sophistication and capital and the costs and the pain in the ass of it, to engage with environmental markets to actually aggregate together and then they've got a really meaningful size impact and carbon project and the economics of it improves the ability to service them improves. So, that's how we now work. You can come in as a member, but you can only get a Digital Twin if you're part of a landscape impact programme. Yeah.

Cool. So, where are you right now. So, you've got Regen Digital which is creating the Digital Twin for groups of farmers. Are you still in the process of building that and you've gone to market yet with any projects? Where are you in the process?

Yes, so the Digital Twin is released, and we are working with farmers individually and as groups.

We're achingly close to our first project, our carbon projects being registered with our, in Australia it's called the Clean Energy Regulator, and the market is called the Emissions Reduction Fund and the issuance of carbon credits in Australia is ACCUs – Australian Credit Carbon Units. So, by the 1st of June, which is today 20 days away, we should have our first project registered and it will take several years for the trees to grow, before the carbon flows. But, in order to become a developer, a project developer in our own rights, as a Mutual we've had to get an Australian Financial Services licence, we've had to you know work through legislation and the Act, work with the farmers to identify what are the blockages, what are the

steps in the process, what's the data you need to collect? Really from a standing start, 12 months ago where we had never ever seen the paperwork of a carbon transaction. We're now about to do our first, so we're probably, we've proven product-market fit and we've adjusted that commercialisation's start of the cycle and then it's whether we can scale-up and the big things that we're trying to do day-to-day, you know encourage more of these landscape transactions – we want to get to 100 of them by the end of 2028 – we currently have 10 fully funded, to do the programmes across Australia.

We're just at the start of the curve; we're only 10% of the way to what our ambition is. Yeah. So, the scale issue is the big issue, isn't it? I mean scaling it at a speed, because this market is also going to grow very quickly, I mean it is growing very quickly and I suppose, what I see and what I understand on the (name) and Ecosystem, it also makes the market very accessible. So, how do you address the real scale dilemma?

Well, it's kind of addressed at the level of the landscape, so I mean when you stick a landscape into a region, it starts off with 10 farmers which gives you more carbon than one – right – but it serves as a role model within that landscape where there might be 100/200 farmers that can join that over time. So, all of our transactions are open transactions that enable the neighbours in that area to join. So, the scale for us is like okay each landscape into that programme, gets to say 100 farmers over time and if we do 100 of them that's 10 000 farmers, that's 2 million carbon credits per year that should be generated out of our farmer base and rising over time. So, I mean you don't scale quickly really in carbon markets, like AdTech and those things think you do but trees take fucking 5 years to grow, the contracts for carbon projects go over 25 years, they're measured on a 100-year rebatement curves, so you're really not like an annual cropping cycle where you grow the ton of wheat and sell the ton of wheat and you get paid, you've got to extend your understanding of what a market looks like. This is a data-driven market and today's price doesn't really matter over a 25-year contract, it's like when you execute and how much of your portfolio you execute at any given time, at any given price point and that part plays with risk and return for the farmers. So, yeah I mean we're not going to get 100% of farmers in Australia, but we stand a reasonable chance because we're significantly different from everybody else being farmer-owned and being about groups of farmers, we tap into a big segment of farmers that are too small to do it on their own and big enough that they are actually like 100 000 farmers. So, if we've got a clear path to 10% of the farmers, that's great. As the market washes out in the next 5 to 10 years and it consolidates, we hope we'll be one of those three or four firms that are still there and at that point we might be at 1 in 3 or 1 in 4 farmers and we'll be different to our competitors and we'll have landscape scale as opposed

to scattergun kind of concentrations and that means wherever we are, we'll have a decent presence and a decent support and a decent network effect and where we're not we really won't be there at all. Yeah.

Right. Cool I realise like we've got 2½ minutes left before we run out of time. So, thanks for the YouTube link, I'm going to have a look at that and see the journey from the start to where you are now. That will be great. I don't want to be a nuisance and so tell me how best to do this because obviously there are groups of actors that have been party to this development over time that can share their own perspective of you know, your origin and your evolution. So, maybe to get a list of names of who they are and if you would be open to kind of helping introduce me to them, so that I could have conversations with them and collect other documents or data or videos from them. That would be super helpful. I would appreciate that. If that's okay with you?

Sure

I promise to keep the harassment down and as efficient as possible because I know you must be very busy as this is not high on your priority list. But I really would appreciate that Wardy. Yeah, no that's fine. Do you want to talk to the farmers, or do you want to talk to the financiers? Everyone – all the actors. So, maybe I'll just send you a list of who I think could add to the story and then maybe you can just identify who the key people are.

If you send me that list, I'll definitely give you contact details – if you tell them Wardy sent you, you'll probably be alright. Yeah.

Co-Founders

All right. Yeah, Rohan's away. And the government had been bit slow to sign the document that does the next four landscape impact programmes. They signed it on Thursday. And so finally getting action. So, I think, next week, I'm away, and then I anticipate I'll be away, you know, every second week for the next sort of nine months, just travelling around the four regions in New South Wales, and two in Victoria, and our original one in Queensland, just trying to get more going on that front. So

01:07

So, I'm going to pull you back a little bit. Because it's been so fascinating speaking to, you know, a diverse range of people on your list that you gave me and getting their particular line of sight. But I thought, what would be really interesting is to maybe get your view of your development path up until now. So, because not everybody has the full knowledge you have, it will have very specific knowledge of particular projects or points of engagement. So, I really thought it would be helpful to get your view of the key moments from start to now, because it seems like a lot start the momentum now is starting to pick up I know, even though you've had to, you know, hurry up and wait, it seems like there's a lot happening more recently.

02:10

It's probably fair enough. So, I think I might have talked to you very early on. But when Rohan and I working at Incubator Coop, we had this sort of acronym, FOFO, which was forming, organising, funding, operating. And that was what we kind of went through when up to 2022, June 2022. And then we will operational probably for now, what 15 months, 16 months, right? So, I see them sort of as distinct. And then in the first 12 months, we were trying to find, I guess product-market fit. And I think we only got that when we'd finished that first landscape Impact Programme. And we recognized Okay. In fact, the event in Taronga was sort of a watershed where we finished product-market fit and we kind of understood at that point. Okay, so we work landscape scale, we're helping farmers to measure what's happening in sustainability reporting terms and manage their data so that they can do that. And then it feels like we're into a new stage now of maybe scaling that product-market fit to a wider audience. Yeah, I think we're at sort of the third stage after product-market fit. And now a bit more about scaling and trying to get bigger, I guess.

04:16

So, if we look at that first FOFO stage, which I love, by the way so what were the significant moments or landmarks in that first lead for first stage?

04:32

Okay so. There's a bit of a bit of technology to the old bit more philosophy maybe rather than technology to FOFO. I might just share screen if it's alright and see if I can find the.... Looks like we're close to it... so when we did the incubator COOP, it's like form organised fund operate? Yeah, no that wasn't the one I was looking for.

05:45

All right, well there's like three or four stages in each of forming and organising and funding and operating. Right. Forming was literally creating the Co- design cohort that came with us through COVID and did the three sessions with us. And then organising was, I guess, turning ourselves into an actual mutual, a company limited by guarantee, Rohan and I, as the employees. You know, a rough idea at that stage, it was sort of at 80/10/10 was the idea. So, 80% of the money goes to the farmer, 10% goes to a local group that supports them, and 10% stays with the mutual. So that was sort of forming and then organising. When we kind of had our idea where we needed to fund it. So that's when we created Regen Digital, the subsidiary of the mutual, and we were able to sell a portion of it to fund the technology development of the digital twin. So that helped us go forming, organising, funding after the crowdfunding. And then operational was once we had the digital twin, and we've opened the doors for members, and that was June 2022. or thereabouts. And then what happened after that. So, if you want the dates, I think we finished about March of 2021, we finished the forming stage, the three co-design sessions. By July of 2021, we'd formed the company limited by guarantee, Regen Farmers Mutual, by December of 2021, we'd done the equity crowdfunding. And by June of 2022, we had opened the doors for members. By let's say, August of 2023, when we did the Trading in Regen event, we would have been from June 2022 to August 2023 finding out my product-market fit. And now I think we're onto that next stage since August 2023, to God knows how long this one goes for, scaling. Yeah, so that's how I would think about development.

08:48

Okay, Rohan is in the UK at the moment and is that about Regen Funds and Trading?

08:58

yes and no. He's Irish heritage. So, he's taken his father and his daughter with him on a holiday to go and see where the Clarke's have come from, but he's taken the opportunity while we're there, we're bringing on a new staff member, a third person to join Rohan and I. He's currently based in London but is returning to Australia where he's from. But we're, we're building out our internal capacity. So, Luke is younger, he's 26 or seven. He's Master of Physics from Oxford, but he's really into his IT and technology and particularly AI and Large Language

Models and how they can help farmers interrogate their own data to better understand their farm, which is really neat solution. So, he'll bring technical, more Regen Digital side of things with Rohan. Rohan has also met with McKinsey and CO, whose job it is to wrangle the World Economic Forum, biodiversity auction, which is happening, I think March April, May sometime next year. And we're putting in and been accepted as one of 15 projects to go in this auction. Six of the 15 are from Australia. So, it's not just us, but ours is based on this open woodland credit. So, he's been talking to McKinsey's about our open woodland credit, understanding the demand, understanding a bit better, what the auction looks like, and what this, you know, we're hoping the auction will look after the Traprock that first 14 farmers. But we think that what we did in the Traprock is able to be replicated around the western side of the Great Dividing Range from Queensland through New South Wales, all the way into Victoria. So, it's a potentially massive amount of Australian farmland that could be restored and protected into sort of that pre-European Open woodland that was there before we've fucked it up and say, Yeah,

11:41

Does that feed into what Paul was saying around landscape?

11:48

Yeah, it does in that the landscape. Might be all like 50 million hectares of what was pre-European Open woodland. And of those 50 million hectares, I think there's only 3 million hectares that remains as open box GM grassy woodlands. So, our thought is, how much of that additional 47 million can we restore and protect?

12:24

Wowee! That would be quite amazing!

12:27

Yeah, the auctions about 15 000 hectares that we're looking at initially. Okay, so big enough, but you know, that, yeah, there's more to go. Yeah,

12:42

So, um, so thanks for that timeline. What I would like to do is how, first of all, your approach to those phases - what, what was the phase in each of the phases? And how did you approach change as you move from one phase to the next? And then also, you know, it's you and Rohan, and, and you guys seem to have done a phenomenal amount, of course, you know, how did you draw on capacity to do what you did in those phases. So, you know, what do you do in those phases on how that change from phase to phase? And how did you secure the kind of capability or inputs during those phases.

13:38

So, we sweated in a lot. Like the early days during the COVID and that forming and organising, we got a little bit of money through the cooperative farming programme to run the courses. We both kind of having been in an incubator coop recognize that this is a coop, with a lot of potential. And so, when we got asked at the organising stage to be the first two employees and find a way of paying ourselves, there was a little bit of well, mate, are you going to do it or am I going to do it or are we going to do it? And in the end, we decided, well, why don't we go lockstep together, and then we've kind of around the crowdfunding, which was the next stage after the forming and organising was the funding. I'd been on the Crowdfunding Institute of Australia inaugural board and understood crowdfunding. Rohan has done lots of fundraising as an investment banker in the past and so he wrote the document and I did the marketing and, the farmer engagement and we kind of split the duties. And then as the technology has been developed, Rohan sort of leads that as the Managing Director of Regen Digital. And I lead the sort of farmers and the agricultural side and the facilitation of landscape impact programmes. So, as we got into the product-market fit, and sort of Rohan tech, finance, Wardy farmers and facilitation and agriculture. And we spend a lot of time like talking to one another, and bouncing ideas off one another, a lot of the time shit will fall in between us. And we'll just take it in turns and we'll say, who's going to do the straw man for this one. And one of us will write the document or write the PowerPoint, and then the other one will pick it up and put their slant on it. And then Rohan is a bit more pedantic and specific and detail oriented than me. So usually, he'll take my presentations and turn them into his format. And then he'll be happy with that. Which is good. Yeah, we've got a little balance. So, he finds, I guess, that in other businesses, there's not enough initiative taken by his business partners. And then in this business, probably he doesn't like how much initiative that I take. But I've described it in the past as either one of us would have wanted to do this particular cooperative mutual, because it was agriculture and conservation. He was the conservation side, and I was the agriculture side. It's a coop. It's a big market opportunity. It's important, we think. And so, the truth is, that if he didn't want to do it, I was going to do it. If I didn't want to do it, he was going to do it. And so, we just decided to do it together. And it's been a happy coincidence. And I think that, was that your question Shereen? Or have I answered a different question?

18:05

Yes, yeah, no, you've given me a lovely answer. And I will just keep on pressing you on. So, that is a Rohan Wardy dynamic. And I've been wondering about that, because, you know, I think people know you better and know what you do better, because you're more visible,

whereas it seems like what Rohan does is far more invisible to people. And so, it's been really nice to, you know, get that view, that sensibility. And so, in the beginning, I'd imagine in the FOFO stage, it was really about getting people on board, getting people to think similarly and to get enough input to start structuring something, putting something together. So, but as, as you started building more of an operational mindset, who did you lean on, as resources. Think, first of all to define that. And secondly, you know, you've had things to deliver to, so has it just been you and Rohan, or have there been some key people in organizations or institutions.

19:29

I mean, yeah. We were lucky. All around the place we've been able to lean on different people for different things. That's been one of the beautiful things about the community is where we couldn't do it ourselves. We've talked to people and had people in our networks that could help. So, we worked with Kristen den Exter one day a week and she was very good at helping us understand that product-market fit stage. We've had the assistance strategically from Will Randall one of the investors in the early rounds, Christophe Bur has been really sensational helping us understand the carbon markets and the methods. Our interim member council, which we've met with fortnightly since the organising funding kind of phase in FOFO, they've been, you know, keeping us on track, and we've talked to them about our issues, and they've been really supportive. But Rohan and I are both pretty generalists, so you know if it's IT, or if it's marketing, or if it's doing a spreadsheet, or if it's updating the website, or if we, we can each do that. I'm just probably quicker and messier, and he's more thorough and prettier at it.

21:20

So also, what I've learned, what I've heard is I had a quick chat with Richard Heath and, he mentioned the McDonald's project now that you got funding for. Paul Chatterton spoke about bringing you in on the Brisbane project - the farmers aspects in Brisbane. James mentioned two other landscape projects similar to Traprock. So maybe if you can just give me a rundown of the projects now that are emerging and the funding and where the funding is coming from and then what does that mean from a resource and capability point of view as this now gets beyond you and Rohan?

22:10

Yeah, sure. So, it's probably easiest to talk about the projects based on the grants and funding for each of them. So that we got, like, a year ago, the \$75 000 from the Queensland Land Restoration Fund to run our first landscape Impact Programme in the Traprock. And that went until sort of June of this year. And that was really how we cut our teeth around how do we bring farmers together to answer that question. While, that one was finishing up, we applied with

Landcare Victoria, and the Landscape Finance Lab, Paul Chatterton, to get \$1.2 million to kind of look at landscape impact programmes in Victoria, where the farmers are involved, but also non-farmer stakeholders. So that'll be traditional owners, local government, state forests, national parks, those sorts of people. Okay, so we're using the Victorian money to kind of understand how we expand the number of stakeholders outside of farmers to coordinate landscape scale interventions. We also got the funding from the New South Wales government on Thursday, but we've known we're going to get it for a while, to run four landscape impact programmes in New South Wales. And we're using that funding to work out whether we can do them in a cohort. So, can we take four very different landscapes, each with their team of five and each with their 10 farmers and take them on a collective journey where they're all doing something locally, but using the format, and can we do that as a cohort? So, we're testing two things in the next nine months. Can we do a cohort, and can we expand the number of stakeholders? The other grant that we got was 450 000 to work with McDonald's and the Australian Farm Institute and Open Team on those verified credentials, like being able to measure a farm carbon and biodiversity and deforestation and pass that information to McDonald's but in a way where the farmer gets to keep the data and is actually only passing on a certificate. And embedded in that certificate is carbon or biodiversity values that the supply chain will pay for over and above the commodity of beef. Right. And I'm sure that following this McDonald's example, we want, whether it's weight or wool or beef, or whatever the commodity, and whatever the certificate that is required if we can show the data and prove that. So that's going on. And then there's probably two other areas, Regen Digital is looking to raise another round of funding so we can bring Luke on and so that we can scale up the ability to do more verified credentials, do more project management of carbon projects or biodiversity projects, more hands on how do you run an environmental project as a farmer on your farm. And then the big funding opportunity, we think is around these biodiversity and carbon markets. And so that's that World Economic Forum auction is the first one of the biodiversity credits that will test. If that works, I can see us doing different credit classes. So, I think there's another one that's emergent around freshwater habitats. So that'll be the mid River Delta of Western Murray. That'll be the farm dams. It'll be Northern Territory and Kakadu, where they've got the freshwater sort of wetlands of our tropical north. I think there's another one on the eastern side of the Great Dividing Range, like you've got the open box gum grassy woodlands on the western side. On the eastern side, I think it's about flood mitigation and preventing the barrier reef and the economic damage that can happen to you know, from the Sunshine Coast, got Brisbane gold coast all the way down the New South Wales coast,

Melbourne. That's where 80% of our population and assets are and they're all prone to flood. So, I think after we do the woodland, there's freshwater environments and high value, non-agricultural assets on the eastern side. And we might find other credit class classes, but at the moment, just got to get one off and out the door. But they're all the things that we're working on.

28:24

That is massive and you and Rohan must be so satisfied that you've come this far, so quickly. Like you are on the brink of such big developments.

28:42

Well, I still feel very impatient. And like we should be doing more. But I think that is just about tip. We are moving out of the product-market fit into scaling. And you know, we haven't got all the answers yet. So, we probably have got more jobs on than the two of us can do well. And I think what we'll end up doing is trying our hardest on everything. And if something doesn't make it onto our priority list, then it probably wasn't the highest priority. We're pretty good at checking in with one another. to make sure we don't drop a play, like we call it spinning our pockets or juggling balls. Yeah, and I don't mind, and Rohan doesn't mind working weekends and nights and working hard. I'll either get it or we won't.

29:51

Yeah. Yeah. So, it's speaking to Kim, from you know Kim on Traprock and she was indicating that, you know, obviously there, there was a lot of work done in terms of mapping the land and getting ready to turn it into something that has transactional value. So, what I was wondering is whether that Traprock experience provided kind of some clarification around process, around outputs, around engagement. You know, so it kind of gave you a, an outline of how to tackle, even though this was on a small scale, and compared to what you want to do large scale, but it gave you a sense of process, and what something like that requires. And I'm sure that would be really valuable as input into the other projects. despite the fact that you know, you're not talking about significant scale. So, if you think about, first of all, just what that one project required, and what you've learned from that, and what kind of resources have gone into that. How would you describe that? Number one? And number two, how would you see that plugging into or being very different as you start scaling up across these increasingly larger projects?

31:34

Oh, well, we knew that the thing we were doing in Queensland at the Traprock was our pilot, and that we had both Rowan and I and Cameron. We had a really good team in Andy farrier,

and Rick, and we were able to try the process that we made up and then see if it works. Do you mind if I'll share screen again? What I did for the Traprock was create a Miro board. And then what we're doing for the four in New South Wales and the Victorian ones are the same sort of Miro board. So, the lessons learned for them. Right now. Got the project control template, the case study, you know, cat herding skills, how to do it, what are the team roles? What does everybody need to know how to do in the pilot 10? What happens in week one, what happens in week two, what happens in week 3,4,5,6? Right. So, the lessons learned from the trap rock, we've now turned into the template for the four in New South Wales and the two lots of two in Victoria. So, it has really helped us to scale. And likewise, the, you know, the project control sheet that we used for Traprock, we've worked out how to "templatise" that and what the weekly meeting format is, and how the circles of influence works and weekly timeline and, you know, some references that we learned from. So, I don't know if that answers your question. We tried to do something. And we had, you know how to roughly right, but we didn't know for it, we did some things wrong. So, we put like, two meetings together before we went into the field last time. And now we know actually, we need to go into the field after the first meeting. So, like we learned some things from Traprock, but they're now incorporated into the new process. And we'll probably learn some, well I hope we learn a lot. But from doing it as a cohort, as opposed to an individual team, that was high skilled and motivated and had both Rohan and my attention on it. Now Rohan will be more in Regen Digital and the World Economic Forum biodiversity auction. So, it's on me to do the landscape impact programmes, more of that than and less of the tech. And we're dividing I guess now and focusing a bit more, each of us, and there's the chance that the communication could fall down. But I mean, historically, we've been pretty good at that. So hopefully, it'll be fine.

35:11

So, going forward, these are rapidly running out of time.

35:18

Because I've got to put kids to bed and things.

35:20

Yeah, no, I totally appreciate that. So, I was also just thinking about whether, yeah, sorry, my brains just jumping all over the place. Because it looks like you've locked down a number of areas, you know, like supply chain, you're going to learn something from that, or the AFI or the landscape thing, you learning how to really scale that up, and turn that into something significant and the experience that you gained, and then obviously, the market side of things you're starting to bed down. So, I feel like one can see this model, you know, this model starting

to really crystallise and take shape. And yeah, I maybe two, two last questions. One is, how would you describe that model that is now starting to emerge? I mean, how would you articulate what that is, or is becoming.

36:32

So, we have been describing it as, we help farmers individually and collectively understand what they can do in a landscape and then record that data in a way that helps them get paid for that. So, if you think about that, that means we have a funnel, called the landscape impact programme, we define what it is we think we can do in a landscape. And then we help farmers collect the data and monetise that. Now, the idea is that each landscape starts with 10 farmers and then can go to 20,30,40,50, a 100. Right. So that keeps somebody locally, like Kim employed and paid and earning an income. And so, I think that's how we're scaling. And that's how we're describing it. We start with landscape impact programmes. If you want to become a member, you can't really come in as an individual, you have to come in through the landscape impact programmes. And I think what will come out of the McDonald's work, but it hasn't yet, so far, the landscape impact programmes have been around environment first, and then turning that into supply chain metric. Whereas, in the next 12 months, I reckon we'll see more and more supply chains saying, hey, we're going to get you to run a landscape Impact Programme with these farmers because we want to know, this information. So that'll be different. But they're not going to be that different. You still need to get the farmers to come up with the idea. And you know, so that's how I think we'll scale. Yeah.

38:35

And then just you know, from a resource point of view, So Kim is primarily with Carbon8, Isn't she so? So what I'm curious to know is how you're connecting with other smaller or larger organizations and how that also starts being an interesting aspect of how you organise and how you operationalise because it feels to me like there is some form of an ecosystem model beginning to emerge here, where some operations that you weren't plugged in with a very specific contribution to what you need and very specific landscapes or projects or scenarios. And, you know, as for example, the Regen Digital thing becomes more established, and then the landscaping thing becomes more and then maybe where, you know, someone like Paul Chatterton and the Finance Lab also come into play a very specific role. Whether you see that as being the way you can quickly scale up to deliver to like these big opportunities that are starting to emerge.

39:52

Yeah, right at the beginning of the FOFO bit we recognized that farmers aren't individuals, they already belong to preexisting groups. And those groups could be Landcare groups or independent agronomy groups or producer groups if they sell the same commodity. And, and so our tactic is tapping into Landcare in Victoria, tapping into existing cooperatives in the Northern Rivers, LLS, Western Murray. In the Traprock, we didn't know the organization of the Traprock group, which was previously a wool association group. But we did know they were a group and that they had 60 or 70 farmers and so we went great. It can be a bit more deliberate going forward, like we can understand who the Landcare groups is, the NRM group is, what are the main commodities and what are the main industries in that area? And by identifying who in the local area has a vested interest in supporting the farmers, they become who we need to teach about the mutual so that they can onboard our farmers local. And the model is that the farmers will pay those people, because those people are doing a valuable job.

41:40

Okay, I'm going to let you go and tuck your kids in

41:46

Happy to talk again, you know where I am

Co-Founders

Yeah, so like Peat Finance Ireland, so they've come from a research background, but they've kind of doing something similar to what we're doing. But it was a fascinating conversation because they had 23 million euros to invest in water land restoration in six different locations around Europe. And then they've got this peat - peat sequester is 30% of the world's carbon, our peat bogs globally, really important carbon sink. And so, they've got, they're trying to lead to restoration of carbon peat bogs in Ireland. And so, they've got, in a sense, a piece that we haven't done quite so well. But what the bit, the missing bit they have is like this shareholder, well, two bits technology and the outside investor, the stakeholder engagement at the farmer level. So that was a fascinating, you know, exchanging of notes, but they're going, we need we need what you're doing with the farmers, we've got as many farmers in Ireland as you have, not in Australia. And so, we need to know how to do that. So, the type of research you're doing would help to inform, because we now understand, we need to come up with some ways to systematise what we're doing so we can share it globally.

01:31

I'm thrilled to hear that. Yeah, and for me, it's actually quite fascinating to look at. And, to, to, to make sure that I'm seeing it clearly that I'm not clouded with other stuff that I understand and know and trying to put it on top of what you're doing. So, I'm really trying to be kind of true to the magic of what you and Wardy are creating, and to kind of capture that quite accurately. But so, what I will do is, once I have a picture that I think is ready to share, I'd love to share it with you and Wardy, as a start and say like, does this resonate? Is this true to like what you're doing? So, um, yeah, I know, I've got an hour with you, I want to make the most of it. And maybe told me, to get started, maybe just tell me a little bit about yourself, and how you, you know Wardy has told me the story, but I want to hear it from your point of view, how you came into being in partnership with Wardy in RFM. A little bit of background.

02:42

A little bit of background, okay, so like my original background, I had 20 years in investment banking. So financial markets very, very broad, like I kept on moving. So started on corporate banking, traded currencies in New York, set up, a commodities desk and base metals and energy for German bank, ended up setting up what we think the corporate finance part of the business for a boutique investment bank that was bought by Lehman Brothers in 2007. So, I have this kind of full arc of understanding financial markets. Then, I was burnt out, as in, classically burnt out, working stupid hours. And I wanted to work out how I can contribute to society in a way that I didn't feel like, so I was missing something. Missing a piece that was important to

me. And so, I went and started on this journey, and it took me ages, but Wardy and I met and so I was I was doing I had another startup originally that was helping trade unions with their organising and this communication app. And so, we're working with a couple of Australia's largest trade unions, I got involved in the cooperatives and mutual sector by virtue of this, this idea of trying to help work with groups of people. And it was a good fit for what kind of ethically I guess where I'm coming from. I like member-owned organizations. I like that alignment. And so, Wardy and I met when I was working with another guy, and he was working with another guy and the four of us had the same idea about creating an incubator for co-ops. And so that's how Wardy and I started working together. Ultimately, I ended up kind of coming to work with Wardy in his other consulting business he created called Ethical Fields. And I just discovered like, there was a stronger alignment between he and I and my other businessperson I had been working with - he's a lovely bloke, basically. So enjoyed working with him. So, we started working together then I was also doing work in the conservation finance space with an organization called Trust for Nature. So, it was around creating permanent covenants on land. And I was using my financial markets experience to help them explore markets beyond carbon really. And so it was, I could see that there was an opportunity for, for a cooperative in that space to help people come together to deliver better outcomes. We were doing, we were running a programme, we got some funding to run that programme, three programmes actually, that were looking at helping and they were funded by the federal government and they're looking to help create cooperatives. And so, the three of us running them and basically, I came up with this idea of doing the protected habitat one and that was the one that ultimately morphed into Regen Farmers Mutual. So, it was basically bringing Wardy's agricultural background and our joint love of Mutual's and cooperatives and our very complementary, personalities, skill sets, you know, I'm an introvert, he's an extrovert, I'm cautious and he is "go get them". So, we have this very fortunate kind of dynamic and skill set that allowed us to kind of explore and then ultimately create the mutual. It's been at its simplest, all we're doing is co-facilitating. We are constantly facilitating conversations and with different stakeholders, and it just keeps growing. And the other thing that seems to be happening that summarised last week was, there is this saying that you are your "five best friends" kind of concept that like your five best friends' kind of represent you. And in a sense, that's what the Mutual's become. We've got, we've got really good five best friends, we've got, you know, the peak body for this, and we've got these great, you know, our tech developers are just world class. And so, it seems that we've been able to - the people we find are aligned to what we're doing. And we seem to find good people to work with; either they self-select, I think they self-select, because we're not choosing

them. I mean, we are, but we're not at the same time. It seems like we've got this kind of - we constantly facilitating and all power to Wardy, he's the kind of people person that just draws people in.

07:26

So, you have quite a big community of fanboys and fangirls, I had to laugh at Stephen Todd the other day, he says I'm a fanboy. That's a great, that's a great intro, because you're starting to articulate very tightly, what I've been drawing up on a piece of paper, in terms of what I feel makes you magical, you know, because you have created this force field around you. And so that's what some of the things that you spoke about, I want to explore, like, the gaps I have is around Regen Digital, so I would like you to tell me more about that from start where you're at right now. I'm fascinated by the role of the interim members council that seems to have a magical quality around the too, which I'd like to explore. And then I also want to understand the Trading in Regen conference, what brought that about and what impact it's had. But then it's also Regen Trading and Funds, which I would also like to understand better, where that sits on the role it plays. And then kind of at the end to explore what kind of model is emerging here, we can start beginning to articulate that or, you know, describe what that might be, and how that is similar or different to what exists in the world today. So that's what I, I'd like to explore with you. So shall we start with Regen Digital? And you can tell me a little bit about how that got started and where it is now. And who's been involved in their contribution. Yeah.

09:20

Yeah, so like, we're still learning of course. So, anything we saying is like, it's, it's where it is today, basically. So, and it's where it's interesting to look at Regen Digital, because we wrote an offer document when we did our crowdfunding. Okay, so to step right back. We came to understand pretty quickly that if we're creating a farmer-owned entity to help farmers create value through their environmental assets or the environment we came to understand really quickly, that means they need to be able to prove their claims, prove their environmental credentials. In order to prove it, that's about collecting data. So, we tend to understand pretty quickly that well, we need to help farmers do that and do it in a way where they control the data. And too often, both Wardy and I had done work in data coop land for farmers before. So we kind of understand that there's too often the model is, let's create a startup company, we say, we're going to protect farmers data, we write all these really good things, saying we will protect farmers data, we get farmers on board, and then we sell the company. And that's the way the data gets shared. So, we can understand, we need to find a way to do that. That was the initial catalyst. And that kind of came out of the co-design process, one of 10 principles -

out of that initial co-design, we have these 10 principles came out. And you'll see at least one of them says very explicitly, we need to enable data sovereignty for farmers. And some others kind of refer to these types of learnings. So, we create Regen Digital, we set it up in a way that Regen Farmers Mutual has a, will maintain a majority ownership of Regen Digital unless 75% members decide otherwise. Thinking that that was one way that we can protect Regen Farmers Mutual members from selling off the company. So, it has some restrictions in it. Regen Digital, so I'm trying to think about how to come at this. So, if you think about Regen Digital's mission is to help farmers prove their environmental claims by using their data. It's not trying to create a farm management system. So, it's trying to just help farmers prove their claims. And there's collecting the data and then sharing the data that are the two kinds of bits. We recognize that data can be collected many ways, like, whichever way it's collected, it needs to be credible, because it needs to be credible in order to prove your claim. So, we've got questions about how do we go about proving that data is credible. And then, in terms of proving your claim, we need to have a mechanism by which farmers can either share data or share their claim. Right. So that's the general kind of setup. And what's emerged here. We have a project that's funded by the Department of Ag, that aims to enable the sharing of certificates. So, a farmer will be able to share a certificate, and the certificate will be issued by the mutual and it will say that it might be a carbon neutral certificate, for example. And it will say that the farmer has shared this, shown us this data, we've run our algorithm over this data to say that like yes, it meets, the farmer is carbon neutral. Here's our stamp of approval saying that they are carbon neutral. Certificates been issued by a mutual it's something that's kind of native; it's been done before it's being done currently. So CBH is Australia's largest cooperative. It issues certificates for its members. It issues what are called ISCC certificates, I can't remember what it stands for, I could probably guess, but like the carbon certificates, basically. It issues these certificates, and their canola growers need those certificates to be able to export to Germany. All right. And the reason why they can issue that is because there's a there's a kind of peer mechanism going on that like if you've got 100 members, and one person does the wrong thing. Well, the other members would say, well, you have to come back in the line because you're actually impacting all of us, or you'll get kicked out of the cooperative. So, there's this natural mechanism for peer compliance, which is a good kind of button. So that project we're working with, this is one of our five best friends - we've got two groups, we've got this open ag tech ecosystem out of the States we've been working with, so that's awesome. The Open Team, they got \$35 million from the US government to build open-source ag techie. So, they're wonderful to work with. And then we've got these, this company out that's been working, doing a lot of work with

government, but they've been designing an open architecture system to enable the certificates to be shared. So probably going into too much detail but

14:57

you're perfectly giving me all the stuff I'm looking for - you for - you are joining all the dots. This is perfect. Thank you.

15:05

So, this company is called GoSource, and they've designed this open architecture. And so, what's happened is over the last five years or so, everyone's been talking blockchain and the traceability and for proving claims, and basically doesn't work because well, in lots of circumstances doesn't work, because everyone needs to be on the same blockchain. Right. So, it's another form of centralisation. The system they're designing reflects the real world, is in its decentralised enables many trust anchors. So RFM will be a trust anchor, many organizations who are trusted to issue certificates for groups of people, in our case, our members, and they issue those certificates, and those certificates can then float along the supply chain, along with data. So, the way that happens is, the certificates issued, and it references a URL. So, references are somewhere on the web. And that web server has the data. No, it has the data that backs the claim if you like. So, there's a there's an audit trail for every certificate that is issued. And so, you can imagine a world where every time there's data being shared, and it's been used for making a claim, there'll be a certificate saying this data is good. So, we can start with it. We have then a system that's decentralised, but also auditable back to too, and so in that sense it can be trusted. So that's the system. And so, these guys wrote the white paper for the UN on this, they've just been invited over to talk at COP 28 on this particular article 49. And what the design just makes so much sense. We're in there going, we've got one of four pilots happening in Australia, but we think it's like, oh, my gosh, this makes so much sense. Right? So, Regen Digital, looks like it's enabling our farmers to prove claims, and it is also, quite possibly helping our farmers collect data in a way that it can be proven, because these certificates and then the, we need to create this, working with this open ag tech ecosystem to create the data stored that the farmers control. So, it looks like it's a good ecosystem, we just need to make sure it's kind of financially viable longer term. That's how we need to get to 10 000 farmers basically.

17:57

Okay, so what's the timeframe on this? Do you think, you know, because this is the AFI project hey with Richard Heath, and yeah, McDonald's? Yeah.

18:10

Um, so we'll have a prototype on that certification. We do think it's like, it literally is game changing. So, we think that product... I caught up with McKinsey's in London, so the head of nature markets for McKinsey's, like brilliant guy, lovely bloke, but brilliant guy. And he got it immediately. And like I said, so I said, well, so we're thinking we need to catch up and meet with SAP, because clearly, clearly, the way the world's going to work is you're going to have a certificate, you're going to have data, this is going to move down the supply chain. And it'll just integrate with companies' accounting systems. So, there's lots of people building traceability systems, we don't need those. So, SAP will have a like a module, which will consume the certificate, and then they'll do the reporting. And he went, well, you are the first people ever, in all my years - been doing this for decades, to mention SAP in this context. And he's gone, you're absolutely right. I can see every government in the world wanting this for their reporting for grants. Yep. So, he was right on so. So, the timing for this is - the pilots are the first half of next year. And we think it'll; we've got a couple of different other lenses on it. So, we're part of the World Economic Forum, biodiversity credit auction process that's happening in the second quarter of next year as well.

19:42

So, Wardy told me about that, and I Paul Chatterton mentioned it briefly in passing. So yeah, help me understand that better too. So, I have a note in my notes around that as a key event on scaling on the scaling side - Yeah, tell me about that.

20:00

So, the reason I joined that dot is because we think that this, this reporting and the MVR, but the reporting bit, this helps all that. It's a cool building block that will give us global exposure through that process. Yes. So, the World Economic Forum, is putting together a biodiversity credit option, it'll run in the second quarter, probably more towards the start, because it's McKinsey's are advising the bid with the World Economic Forum. And as they said, well, this is all pro bono on our side of the fence. So, it's costing us money, the longer we do it, so we'll be you know, because I was saying, does that mean, June, and he's going meh, probably more like March. Right. So, they're running of biodiversity credit auction, and they've been this, they've been building towards it. So, we're part of a supply group. So, looking at all how credits are created. And so they've been going through this process of helping to, to understand what the biodiversity credit looks like, from how do you construct one and the, like, since New York Climate Week, whenever it was six weeks ago, that just start engaging with potential buyers, so their members going well, would you want to participate in this auction or the mutual we have a project that came out of the Traprock. In the Traprock, you'll be familiar with, in the

Traprock what we discovered there, the thing that farmers could do was protect and restore box gum, grassy woodland, and box gum, grassy woodland, there was originally 90 million hectares of this, and there's like three and a half or 4 million hectares left now, 10 If you count little dots here. And so, it's critically endangered, and its habitat to Koalas, like, important species for the country. So, our proposal is to do a project with our farmers in the Traprock who are all ready to go, they want to find out what their biodiversity is worth. But recognizing it's replicable all the way down to Victoria. So, and we've got projects with - Wardy would have spoken about the New South Wales projects we have, we've got four funded projects there. So, one of those at least includes box gum, grassy woodland, perhaps two. And we also have four projects in Victoria, it's likely one of those will include box gum as well. So, we'll be able to kind of have a landscape all the way down from Queensland, NSW and Victoria. So, the idea would be - so we've gotten these elements to coming together we can, we can demonstrate a good biodiversity asset that's path-critical for Australia that has scale, but it's small enough to be tested in biodiversity credit auction. So that's a good place to start. We have - there is like 25 years of research that the new Australian National University is done on box gum and grassy woodland, and ANU Sustainable Farms are another of our close friends, and so we're working with Victoria. And they're very keen to help us with this or work with us on this box gum grassy woodland so much so that they've done the environmental accounts on it, but they're going to write the method. So, the method that would be applied, the way they're doing that is they are drawing on a guy called Andrew Macintosh, you may be familiar with, but he was the author of some methods for the carbon, and he was also a whistleblower last year on the carbon system in Australia.

21:59

ah, so was it his doing that the carbon price, he ACCU's just dropped in value?

22:23

No, I think that might have been another process but like certainly he calls that into question, and to be fair, the government has now a mixed view of him by virtue of the fact but having said that they will work with him. But he can write our biodiversity method He works as part of ANU law school. So, he's going to be helping us to write the method. There'll be ANU Australian national research. So that's another big tick. We've got that. Then we've got the technology. So, we've got the MVR, using the certificate. So, there's some really cool bits coming together. Yeah, that would be awesome to test on that context, so we just need to find buyers basically. That's our next challenge,

25:20

We'll come back to buyers and markets later because people talk about that in different ways. And I'm keen to understand how you see that. So that's a fascinating story of not only serendipity but also, I think your ability and Wardy's ability to make connections and to join dots and to create linkages and to be supportive of the emergence of, you know, all of that co-creativity - a fascinating story. But what I'm also keen to understand is the interim members council, because that's another example of how you pull in key people and surround yourself with inputs, critique, advice, you know, so I'm keen to understand how you see the role of that counsel, firstly, secondly, how you recruit people to that council. And why you do it that way? What you aim to get out of that?

26:41

Yeah, it's such a like such an important part of where we're at. And, in my view, I think Wardy would agree with me, we're at the point where we are needing to do a refresh. We are transitioning from being, to answer your question more about the Trading in Regen - just pre-empting it - like, that was kind of one of those milestone moments where we kind of transitioned. Because we brought everyone together and everyone saw each other, oh, well, you're here, you're here. That was a major kind of kind of step change credibility, if you like, and it feels like, in total, we've got projects coming in that feel like we're stepping up a gear. So, we need to change from interim member council to a member council. So, they've been amazing. So, out of our co-design process, through those initial workshops that we had over six months, where we posed the question can farmers better engage in markets? Out of that, we had 80 odd people engaged with this through that process, government conservation, like a whole range and farmers, the predominant ones. So out of that 20 or so farmers, mostly farmers came through some academics, and formed the member council. And so, it was like, interim member council. I don't know if you'd call it then. But there was a steering committee,

28:15

Steering committee, I think what started out as a steering committee, and then became the interim members council...

28:20

That's it. And so is them that said, Wardy, Rohan we want to go ahead and do it. Go on, create a mutual and then raise the money to pay yourselves? Yep. So yep. That initial steering committee, most the people that sit on the member council, are still predominantly, those people that were part of the steering committee. So, we've lost some. So, we're ready to, to transition because I think some of that it's getting a bit we've asked a lot of people, it's been years now and people asked, every fortnight not get paid. Yeah. So, it's been a big like, I'm surprised

that people still a bit like, not surprised, because there's a reason why they are but yep, so that's a really interesting question, why are people still turning up? And it's not it's not just like; we have a good chat. I think feel like they are part of it. They're part of something, they're helping to create something, and it is amazing, and it's relevant, its needed. I think they all feel like there's some value that they may get out of it like this from whatever business line that they might be in. But there's you know, if they're a farmer and we have farmers there who are looking to do a carbon project. We have farmers there we have another, you know, another business that you know or can benefit from working with us. We have, like someone like Christophe, who you would have spoken to, who's just like, just an amazing bloke, but like, I think intellectually he finds it stimulating. Yeah. Yeah. Yeah. So, like, and like, I think everyone is like aligned, everyone's aligned with the mission feels that like that is I want to be part of it.

30:41

Yeah, I think Stephen Todd said, kinship. Kinship, which I thought was beautiful. And he said, he said, Because I asked him, like, why do you turn up every two weeks for this? And he said, he used word involuntary reciprocation. So, it was this thing of, and he said, like, you have the power to make me lean in. You know, so that leaning in, so that's, like, beautiful words, kinship leaning involuntary reciprocation, like, you know, this co creative community that cares, and is deeply aligned with what you and Wardy are trying to create. Yeah. So, um, you were talking about transition to a member's council. So. So I also want to understand like, so did it just happen spontaneously, that you had a steering committee than an interim members Council? Now you see, like the deep value that the RFM are gaining from the structure from, you know, where do you go with the members Council? And what role does it continue to play?

32:04

I think we're still learning. We do know that like Mondragon have discovered for themselves, so Mondragon being out of Spain, world's largest cooperative. And they've, like, really worth looking at. But like, they discovered that if they had, and they have many cooperatives, if they had a cooperative, that was more than 50 people it paid, I think it was 50 but like I think it was 50. It was more than a certain threshold. It was it became kind of beneficial to have a member council because the board, that the larger the organization, the more kind of distance between members in the board. And so, the Council becomes a way to fit somewhere for members to feel like they can have daily interactions and influence the boards. There's some dynamic in that, that's not the only reason I mean, but that was one of the things is we need one because we want this thing we don't want to become this kind of separate beast.

33:23

Would someone need to be a member to be on the members council? Or would you recruit skill and expertise outside of the membership base to be on the members council?

33:36

Hmm, I think we've defined that there is a there is a document that defines what it is, I think you do need to be a member. It doesn't mean to say that you might bring experts in. We did like in our steering committee we had we had academics, for example, people from Southern Cross Uni originally, and just part of it. I don't know, I don't know. But like, I'm certainly I think the way it's written is it's a member, member and maybe non-member.

34:14

Because what I've heard is obviously the members are not, some of them are not just farmers, they run businesses, or they've had corporate experience. So I thought was, was quite interesting is that you probably get corporate inputs, you know, like this corporate expectation in a way, because that's how many people have grown up and know how to control and lead and, you know, strategy and so all these corporate terms, so you get all the benefits of that input with the freedom to take it on or ignore it. Or you know, do as you please So, so I thought that was quite interesting that you could get this very diverse input, you know, and it came about because the farmers are more than farmers on your members council - they had other life experience that would be valuable.

35:12

So, we're thinking about, this is probably worthwhile bouncing off you. We're thinking about structure for how we, how we take what we're doing, and how we learn from others, how we share, doing, how we learn from others, because I mean, walked away from this meeting with the Irish folk. And we said, look, you know, we've spent half a day together, and like, we really should be meeting once every two weeks - so that's been taxing our brain. And we can see that potentially the idea of creating a foundation or a mutual of mutuals, I don't know which one - might be a really good thing to have to be kind of a whole IP that, you know, becomes a way to share this, and then across, and then we're going well, there is a model that says you can have advisory boards for that, and you could bring in, you might invite McKinsey's or an EY or whatever, on that advisory panel global. And they might pay to play on that and to cover the costs of your, your foundation. So that's the issues that start arises, you know, those folks join the advisory board in some ways, because partly because the mission, but partly so they can influence have directly or connect with some of the stakeholders in the ecosystem. So, there's value to them doing that. Anyway, so that was like it. In some senses, having farmers only keeps it really clear and simple. Yeah, it was really with you have a definite agenda.

36:59

That's really interesting. And because I wanted to chat to you about model right at the end. So let's leave it to the end. Because I think that there are other things that come up in the conversation that stimulate that. And I also think, what I got from just speaking to separate members council is that, you know, people were saying, we're really interested to see what picture emerges at the end of this, because we have a very limited line of sight, you know, so you check in every two weeks, maybe you miss one or two. But you know, like, there, there isn't, let's say, this visual representation of what you're building, you know, up on the board somewhere, so people can see how it's beautifully evolving and, like, miraculous. So, yeah, so I think that there is benefit that at some point, there is some reflection of like, what you have built, where it's at right now. And, and also just to share, because it sounds like you have increasing external stakeholder interest in what you're doing. And also, to see where the opportunities to plug in to plug and play, you know, may exists within this rapidly evolving form or entity that you know that you're creating. So, the conference, I'm sure was a was an interesting point of reflection for and Wardy, I would imagine, and you must have had some intention around what you wanted to achieve with that. And I was wondering, also that post conference, what your reflections on that event were.

39:00

First things first, Wardy was, you know, like, he'd run TEDx conferences before, and you could see that he was in his element. So, he organised that. Did an amazing job, how division brought people together. I can't claim any credit for it. Some of the things that we wanted to get out of it were things like, we had a membership model - we had a health fund membership model where you use the product become a member. And we wanted to use that moment to move from that to being people can sign up for \$30 a year and we just wanted to open up membership. So, we have we haven't had the time really to press that much more widely, but we will start getting a message out about the mutual to a broader, broader base if you like and open it up. One of the things that the mutual hasn't yet done, is like be adopted widely at scale by farmers. Right? It got 100 odd members. And that's partly because people are busy that their members have a whole raft of things. And if you're going to join something you want, there's a value exchange, building the value exchange going, right, we've been trying to work out what we're doing. And so, so we haven't had a way for farmers at scale to engage. So, part of the part of what we were wanting to do was to start testing that. Part of what we wanted to do was to bring everyone together and just kind of ... we originally talked about having, and we did have a member assembly that at the at the event, and that Member Assembly did go like the we had,

like 30 odd people hang back up, you'll just be 20 or 30 - maybe say 20, hang back, who are members, who actually came to the event, we sat down and we had a grand plan, and we threw it out of the window....

41:23

We did have a feedback session. But like we didn't really achieve what we wanted to do and like have a deeper level of engagement. So, and I think as I said before, I think the biggest thing we got out of it was just this was a kind of this moment where just the range, we heard this from so many people, just the range of people going, oh my god, we're just the calibre of people who are in the room. and the diversity was like, just brilliant. And the fact that you had this range of people kind of talking to it. So, people got a lot out of the day, which was great, which was really valuable. But just also just seeing and they're probably they're all aligned. Because like that's we tend to attract who actually is aligned to the mission. Yeah. Yeah.

42:21

So that made me think a little bit because obviously, your focus is getting farmers on board through landscape impact programmes. So that's kind of a very sharp edge to a wedge, you know, so to gain a broader base of membership and support one probably need to say like, what is their range of offerings, so the one is climbing and be part of a landscape Impact Programme. And that kind of this level of membership, but there's a lot of paradigm readiness that is required in the market to run with because there's so much complexity, there's so much that's unknown and uncertainty, and there's so much mixed understanding of what it is, what it isn't. So there's kind of there's an awareness, aspects of the role that, you know, the mutual can play so that you come in and become a member and be part of our, I don't even want to call it education, but you know, like, your, you know, learning, yeah, learning your way into the space in a way that later on, you can decide to take this aspect of the offering or this aspects as often because, you know, the other thing is the digital side of things, obviously, also provides capability that maybe farmers can experiment with, so that they say like, I just want to understand what this does, how can I apply to my little piece of land or my big piece of land or so, you know, there are aspects of your product offering that could, you know, be split up into different levels or layers of membership or, you know, their prices attached to using certain of the stuff? So, yeah, my question is, is that is that a way you're thinking about, like, what your value proposition is and the levels of you know, what fits into that value proposition?

44:27

Yep, it is. So, we've just been constrained by resources basically. So done a lot with a little and

44:38

I think that's an understatement.

44:39

It was funny people go so how many ... like and then we go well, there's Wardy and I, but that's not really all of us. There are a whole lot of people, and then when we talk through what they're doing. They're going Jesus! A few times last week, but you're absolutely spot on. So, we just discovered that the economic model for engaging farmers had to be by groups. And this is how we designed the landscape Impact Programme, because that was our background in accelerated programmes. And we kind of matched these two together and going, oh, that's a way that's a product that we can get funded and that deal enables us to create groups that allows for someone to be paid to. So that works. And then, as I say that the Trading in Regen was like an opportunity to go right, can we open up a new band of members, but like, just create a membership, your membership fee to join a mutual is 30 bucks a year, and everyone pays that. And then if you're part of a landscape impact programme, you might do other things. So that's why we haven't really marketed yet. But the idea behind that is you get access to our education there need to be some kind of co-learning, we need some a resource to kind of manage that that offer really, we don't have that. There is something there that I think you just described, there's something in between, which is the technology. And we do now have a third person; we just haven't yet got the money to pay them. But we're going through that process, hopefully sorting that out. So, Luke has actually started working with us. So, he's 26 Just finished his Master of Physics at Oxford, he was working at a company called Downforce, so satellite technology for farms. So, he's taught himself programming. So, he had done a lot of thinking. And he reached out to us, and he done a lot of thinking about this space and kind of arrived at a somewhat, although it was more trust base, but he's, we've invited him in as what Wardy calls him our third nut.

47:17

And he is keen and he's 26. Like he's grown up, like he understands usability, user interfaces, that seems natural to him. He's like, he's also really, really bright people who can explain things simply. And he came with me the island. And so, he's looking to build the interface, to then start enabling farmers to learn and like using an AI kind of approach. Helping to kind of step through the journey. He did some started building something similar for the UK. So, to answer your question, I think that will emerge some kind of point, which will be a tool that helps farmers to start kind of understanding,

48:32

yeah, that kind of leaning in and learning, you know, so a different experience of the mutual but also, at the same time, creating much broader market readiness, because I think that that's

also probably, you know, the role of conferences, is about bringing people in and creating a soft space to understand the larger context and opportunity. And so, I think all of those things are enormously valuable in terms of, say, creating this market readiness, buyer readiness, because you had all of those stakeholders, you know, giving voice to what's happening in the space. So, you're interesting. Regen Trading and Funds?

49:27

So that's emergent. Be fair to say. That's our kind of next big rock that we need to crack. Interestingly, ANU law school are interested in doing some work for us on looking at the mutual model, looking at the legal how we can best structure the legal arrangements with our members, because we have some views about that. And they were like it, Andrew McIntosh. Yeah, he's brilliant. He's on the board of Macquarie Bank, so he's you know, he's quality. So, he's gone.... Apparently, when he first heard about the mutual two years ago, he said just, it'll never work. Now he's gone. Yeah. Not sure it'll work. I'm happy to like, yeah. See if it can. So, he's, so he's interested in helping out to move it along. Yeah. Looked along, and we're looking. So there, we've got a tiny budget, we can contribute. And they're actually going out, because they've got relationships going out to see what they can raise, complimentary to help us do the work to understand the legal, that'll be important for unlocking the funding. That global model was talking about, that's where we're, that's what we're currently looking at with our tech partners GoSource we're looking at well, okay, how do we use this to help fund our next steps. So that's another avenue on it. So, like, that's going to be kind of, in a sense, a tech-led, there's a tech component, which will be like a global, won't be Regen Digital, it'll be another business use software. And there'll be this mutual model that we just described within we can do that, and then have money coming in? Because there's so Okay, so there's those bits, we're looking at that I'm being very general, because we haven't really worked through it all. Yeah. And then the World Economic Forum biodiversity credit option should be a really interesting event, because that's allowing us to engage with a whole level of corporate buyers and starting to introduce them to the mutual, the model. So, it's international technology. So, we're trying to bring the bits together, so they kind of line up.

51:57

I was thinking of something there. And it's like, Oh, yeah. What you made me think about is in projects that are coming up now, the landscape impact programmes that you now have all the funding for? I'm particularly interested in a cohort model that, you know, you're not building which expands beyond, you know, which involves a wider stakeholder community of participation. Yes, so well, from that, well, farmers still are the sharp edge of the wedge, there

is something larger working here now, which I'm sure it gets you to think about your model as well. In that it's a step change from where you were to, you know, where you're going. And it's probably going to become more like that, in order to achieve the scale that you're looking for. So, I'm curious to understand how you're thinking about that.

53:07

There seems to be layers of we've just spoken about, like there's not tuning at the global scale. It's kind of there seems to be these layers, but some of the actors are the same at levels. So, you can imagine that a McDonald's or a Coca Cola being a global player. Someone who wants to participate at a global level, also wants to invest in on the ground project. So, in fact, they're at participating here so they can get access to the project. So, there's these levels. And you're right, there's the farmer one, which is like one of the advantages. Another advantage that we have is we say this quite a bit as we because we were farmer-owned a really clear idea of who our stakeholders are? Well, yeah, yeah, our job is to help our farmer members. Easy to deal with, because we were saying, well, this is what are you doing? Because we can work together? Yeah. So that works. And so the bit that we haven't done well to date, which we're looking to explore in the Victorian project, that the Irish guys seem to have done well, is engage that next level, that next level up, not the global but the regional, regional yeah, might be local councils, or it might be like national corporates, not international, but national corporates. It could be there's a range of organizations that have an interest in the outcomes, and that we haven't worked out how to engage with land, think the land project with Landcare, my intuition is that Landcare will actually perform that role for us. Us for the world in general is just like that they represent groups, people on the ground - the national ecosystem. Yeah, yeah. Yes. Sorry, sorry. No, no, no, you finish what you were saying. Landcare is state based, but they're a part of it. There is a national Yeah.

55:35

Because felt like I'm being farmer-centric, you know, and being focused on what he said, we focus on farmers because farmers are a group, we recognized early on its farmers and other individuals, they are a group. And then if you look at farmers is the group, farmers as a group really are an extended ecosystem, you know that in that you have the Landcare and NRM, which really is your access to national/state infrastructure. So, it's quite interesting that the way you looked at your market was that, you know, they were a route into a larger ecosystem, and Wardy was saying, like, in traprock, it was quite spontaneous in terms of how you connected with the stakeholder community there. But going into the scaling side of things on the cohort side of things that it would need to be far more deliberate in terms of who you engaged, how

you engaged. So, it also points to, to again, clarity of model of operation that seems to be emerging as you scale at different levels. Right, Agreed. So I'm already at an hour, but I just want to ask one last question. model. So, we seem to be touching on a module that's emerging here, which seems to be an ecosystem model, which you and Wardy are orchestrating into existence. But how would you describe this model that that is emerging now out of RFM?

57:29

Huh, I might need to think about one...

57:32

Do you want to think about that? Because I would like you to think about that. And maybe if we can organise another like, check in? Because I think that's really, really important to me.

57:47

Could Wardy and I meet with you because we can go and have a chat? Because it would be good to have a kind of debrief from you based on all your conversations, but then maybe have that like close the conversation. Right. Okay, let's look at and we can maybe bring up the Miro board with Well, this is a plan for global domination.

58:10

Yeah, that sounds like an excellent idea. Yeah, that sounds like a good idea. I'm also impressed with the way you guys have uses technology to collaborate, and co-create, I think that is also been a large distinction in terms of how you've been able to kind of co-create, templatised...

58:35

We've been lucky circumstances have been in our favour. But yes, it's been amazing.

58:40

No, I think there's one thing about circumstances being in your favour, but I think it's also your ability to engage it, hold it, transform it, engage it, hold it, transform it, you know, and that's a particular skill that I think makes you and Wardy quite unique in terms of what you have shaped here and what you have given substance to here. So, I'm also trying to find a word for that. Like, what you guys do so well, that is kind of your secret sauce, you know, to

59:22

Okay, so Wardy is on the road, the Wednesday this week, but like we'd like the same time. Same time next week with that maybe potentially work

Co-founders

Just add water. I want to find out if that's true. You know, if your idea of the development of the value proposition all happened in the shower, or whether, you know, there were other intervening events that were equally inspiring. Yeah, so I think it's this one and this one that I really just want to get to hear. How you tell that story, you know, how it all kind of fallen onto a page for you, and maybe what the like kind of key events or processes were that took it from one stage of understanding to the next.

01:10

Oh my gosh, it's going to be hard to remember.

01:17

Yeah, I'm sure it goes back a long time, and a lot has happened in that time.

01:21

So, it's it is interesting, looking at some of the early documentation, we haven't strayed too far from the earliest days. So even before when, when this was just a twinkling water your eyes, I but like, when I was at Trust for Nature, yeah, and becoming aware of and, like, I'm talking to those guys about the fact I could see that, like there was an opportunity to kind of bring to create some sort of, I thought there was an opportunity to create some sort of cooperative, to bring land holders together to more effectively, kind of interact with the either conservation folk or the government folk like that. It was you could just say that there was this kind of disconnect between lots and lots of land holders and then institution. So, the first step was the genius, like, whatever the catalysts were about, oh, let's run. Let's have a look at, as it was called. Let's look at habitat. Okay, was like the first workshops, the first course, and it was actually we were running three courses. We got funding to run for courses, and so I designed around exploring this idea of whether there was an opportunity to use a cooperative to better protect habitat was what I call - the reason was protecting habitat is because I was looking at biodiversity to go about protecting and restoring biodiversity, and for Trust for Nature. And Trust for Nature had a very conservation focus, so that the initial, the initial the initial work we did, you'll see it was about protected habitat, mutual, uh, protected habitat, that's what, that's what it was. But yeah, when you look at so, so we explored in that first workshop, is there an opportunity to bring people together? And we had farmers, and we had elders, and we had government people, and there's this out of that payment answer that yes, this looks like it's worth doing. The second one was the second or third one was one was when we we ran three works, a series of courses or series of workshops, the second one was right. If there is, how do we go about doing it as in? And so, we actually brought someone in, one of all his mates, in, to

kind of do a black belt. Was it sigma six? Sigma? Sigma six, whatever. Yeah. Consulting process, yeah, to look at, well, what would be the the actions and the swim lanes and what, what would be the benefit for each stakeholder. And it was out of that pretty early on that we started to get this idea that our job is to assist land holders to assess the opportunity, to kind of move through this process of understanding the opportunity executing and delivering, and we had this five-step process, happy to share the slides that we had, right?

04:47

Yeah, yeah, that would be good to have a look. Yeah,

04:52

I could Yeah, because you might be able to see the Genesis from there. Yes, right. Early days, we had this kind of concept. So, when you look at a farmer-owned business; we were looking at that from early days. We were looking at education, opportunity, negotiating all that was from really early on, data management side of things. So, the third in the series of workshops we did, we came up with the 10 Principles, right and designed by the steering group, or those participating. And so, like, one of those was data sovereignty. And so pretty quickly it became clear that, like, if you're going to create a mutual, we need to have a way for farmers to manage their data as well. And so, the data management kind of emerged through that, like, as in. So that was like when we created the mutual. Three months later, we created the subsidiary to enable the data management. So, there was that kind of so I guess there was, we understood pretty early on what the components might be. But like, we've kind of been addressing the next big rock progressively as we've kind of worked through it. Yes, some of them have gone You're crazy. You kind of got too many balls in the air. You should just focus on one small, traditional, traditional startup theory would be start small and really hyper focused, and then kind of expand from there. We haven't, we kind of done that, but we haven't done same time, because we came to understand there were these different layers. I think from early on, we understood there was these different layers to what we were doing and aggressively to address each of them. For example, financial infrastructure hasn't been addressed as yet, but we haven't needed to, because it hasn't. We've been kind of working our way through what, what's the next big rock? And that big rock has been kind of almost a couple of times, but we haven't actually needed to kind of get over it yet. Maybe that's so, yeah, so you know that kind of next step approach, like, like, what's the next big thing? What's the next big rock? Um, has it really just come about as a result of conversations with you and Wardy, or have there been other key, kind of pivotal people that help you understand or see, like, what is the next big rock?

07:38

It would be, it would be wary, and I talking with others, and then coming back and talking together. So, we've been playing off each other, but like, clearly, there's a whole network expertise that we're kind of bouncing ideas off, and we are constantly engaging. So, it's, it's both internal as in, we have our members Council and people that we are engaging with, but we've also been really good at kind of reaching out and having conversations with our let's talk to that person, person, or let's talk to that person. So, I think we've been, perhaps it's one of the advantages being the mutual that, like people have tended to be open to talking to us more often than not. I mean, some, not everyone, but like, we've been able to actually engage with people and have, yeah, have those conversations. So, it's that kind of iterative process where we go and test ideas, hear something, and then what do you are we'll talk after a meeting, going, oh, did you hear that? That was and so it's, that's the kind of, and that's been the process from the start.

09:03

It's kind of just to focus on what's next, what's next, and then obviously you, as you understand what's next, this value proposition has become more and more refined over time. Is that the case?

09:04

Yeah, and we haven't written we haven't changed it. We haven't written that for that was written while back. But yes, the early iterations we would have, we would have had a few goes again. I can send you a couple of examples, but we would have had a few goes right with someone. And they said, can you send us the one pager? Sure, and then we'd write, write a new one pager. Because it was, yeah, yes an updated version.

09:27

And so, I'm also curious to know, like, you know, as I said to you in the first in the other presentation, I just mapped this out because it felt like these were the elements of what you were building. And I'm also curious to know how this has evolved, you know, is it pretty much the same process as with value proposition or, yeah.

10:54

So, it's exactly the same as in, all right? We need to create Regen Digital, right? How do we do that? What's it to do? Like, where do we get the technology from? Like, it's, literally, what's the next big and so getting Luke on board has whole wholeheartedly accelerated that development. Now we have, all right, we do three things, and it's like, it's, it's, you can see that's really crystallised to a point that's now simple and people are resonating, or it's going to resonate like it's just so, yeah, the landscape impact programmes that kind of came out of the

start of last year that would be right, yeah. So, what was the catalyst? If there was one, but I remember us doing now, writing up the first kind of this is what it's going to be like, and then pitching that to a cohort, that's right, I can't remember who we tried to pitch it to. Yeah, so it was always the beginning of last year. Sorry, I need to spend some time thinking about as to how we arrived at that place. But it might have been there was an opportunity to get some funding, or we thought we could get some funding for running it as a cohort. We were going to run four groups through a programme. And so, we designed the programme, and we pitched that didn't get up. But then we went, we were talking to the Queensland Government and LRF, and they said, oh, we will fund one. And so that's how it's kind of formed and the Regen Advisory Services must have emerged around that requirement as well. I mean, was that simultaneous?

13:14

Wardy sent out a newsletter today, and he was talking about us being a thin organization, and that's something we've been saying for a long time as well. Like that, the idea is we're creating infrastructure and leveraging enabling folk on the ground to leverage the infrastructure and finding ways of business, and which is the Regen Advisory we did early on. We've been down a couple of dead ends where, you know, we did try. We brought on a number of Regen Advisors and tried to train them about what they'd need to do, setting up a digital twin, going out and seeing people. And that didn't really work, because at that point in time, we hadn't worked out it was the Landscape Impact Programme being bringing cohorts together created the scale to have some service them. So yeah, that's an example of what was in the Regen Advisory Services. And then we had the questions as to, are they employed by us? Are they consultants? So, we've been down a few rabbit holes there, and kind of, but it's the same process. Exactly the same process. It's trying to solve the problem, right? How do we solve that problem?

14:43

How did the AFI project come about? Was that because of Wardy's connection with Richard Heath?

14:56

They actually came via, originally, via relationships with the department. So, we've been talking to the department, yeah, Department of Ag in Canberra, and so we talked to them about the traceability part of the department. And we've been talking some time, and being typical, us being open and so sharing. And we therefore developed a pretty good relationship with them. And so, had foreshadowed some grants coming, and there were these open grants round and a non-competitive grants round, and we thought we were going to get money under both. As it

turned out, the money under the non-competitive went via the food agility CRC and never came out the other end. Yeah, they're actually doing the same thing as what they're doing three pilots, the same as us. So anyway, it'll work to our advantage, I suppose. And the competitive they said, oh, if you do think about the non-competitive being here and the competitive one being there. And so, we, we applied for the competitive round but then brought in the participants. So, yeah, so we're able to pull together a compelling case, not only because we had a good ship, we had the other relation with the department, but we had a good relationship with the AFI NRM standards, Australia. So yeah, so it was, it was good. We're able to pull, pull to get something to get together.

16:57

So, you guys have spent a huge amount of time and loads of conversations that some of them go nowhere, but some of them finally pull important pieces together. Is that the case?

17:07

Yeah, yep, that's it seems like more of our conversations as we've as we've got, got more mature that they're more likely to result in things now, but yeah,

17:25

What I don't understand very well is, like the how Regen Digital, like, I understand when it came about and why it came about, but I don't understand the process of how it came about because it sounds like you're ready now for a quantum leap from what it is and what it does. So maybe you just want to take me through that.

17:53

Yeah, so, so we came to understand that we need to help our farmers. Man, so

18:22

So, it started. We knew that we had to help farmers with data sovereignty. And then there was one night where I stayed up, really, I stayed up, like stupidly late, and I just spent the night kind of doing a global search for how we'd go about and how I came across open team, connected with them, and they had this open-source software, so we were right, that's what we're going to use. And it turned out, it turns out, was a reasonable decision, in the sense of their good bunch of people highly aligned from that perspective. The software has been, it's not, not quite it's been good fit-for-purpose, what we needed. It's done, but it hasn't necessarily, it's not easy to use software. So, it hasn't enabled us to kind of accelerate our IT platform kind of our tight it. So basically, Pete farmers have used it, have kind of gone, ah, that's really hard, and don't use it anymore. So, so that's fine, able to it, didn't label us. Whole lot of people about what we think is required. So, allow this. You're

20:00

All right, so walking back in time, what happened was we founded the mutual we quickly realised we needed to create a subsidiary, and we could raise some money in the subsidiary. That was our idea. Subsidiary did the fundraising, and that worked. So that was great. Within six months, we had some money, went and found Openteam, and so we had some software that we could build around that would enable us to launch a product and have a product in market, notwithstanding the fact that was wasn't really fit-for-purpose. It enables to have a lot of conversations and in a sense, if we did a timeline, we'd go in terms of really big rocks. You know, July of 21 we launched the Mutual, September of 21 we went right, we created Regen Digital, and we said, right, we're going to raise some money. December of 21 we actually had raised the money so that you can see that would have kept us busy. June of 22 now we've launched the first product with Regen Digital. So, six months of kind of fluffing, September of 22 we start our first Landscape Impact Programme. Remembering, at the start of 22 we've created the first programme. And you know the concept of the programme, so it's taken nine months to find so now a Landscape Impact Programme, kind of routing for March of 23 we have finished our first Impact Programme. So, at the same time between the launching of the of Regen Digital and the ending of that first programme we've had, you know, 60 odd farmers, come on and create digital twins. We recognize it's not fit-for-purpose, all right, so we're going right, but like it's enabling us to do something. Yeah. So that's March of 23 so it's not that long ago, and what was it, you know? So, Luke has come on from round about, I suppose, September this year, it's been starting. So, from here on, in Regen, Digital will start getting a life of its own, as in becoming what it can be, it's actually going to become a huge engine driver for what we're doing. And I don't know what Wardy and I have been doing for last six months. March, 23 of September,

22:53

Yes, so, that's, yeah, that's probably a history of Regen Digital in a nutshell, and where it's going now. So, with Luke coming on, we now understand that we can do three things. It's like we can help a farmer understand that. And these are all consistent with what we've been saying, but it's now really clear, we help a farmer understand the opportunities to deliver environmental outcomes on their farm and be incentivised to do so. So, think of that as being a farmer comes on. You know, there's an onboarding experience, and then out of that onboarding experience, they go, right? You could possibly consider a green loan. You could consider a carbon transaction. There's this biodiversity credit in your area. Maybe there's some insurance, or there's some government grants, right? So, you can imagine platform is going to enable a

farmer to enter some data map their farm and then be told about the opportunities that they might have in their region. And from there, they go, right. I want to do that, that opportunity, and then they get taken into right. In order to do that opportunity, there's these things you need to do. And so, there's a kind of a project management module where we're helping farmers to manage delivery of the commitments, they're entering into in order to get that environmental outcome for incentive

24:32

and sorry, just hold on a second, sorry, sorry. Just need to know if my brother is out of the gate with someone that's help or whether he needs I'm just going to open. Just give me a minute.

26:31

Yep, sorry. So far, they have opportunities, and then they have project management. So, okay, we help them manage the projects. Out of those projects come outcomes. We then help them prove their claims. So, prove those outcomes so that they can receive payments. So, they are the three things we're going to be doing. And you can see now that we we're building each of those parts.

26:58

So, are you building it on that? Are you building it on the Openteams framework, or are you creating a new framework?

27:06

We will be creating a new framework, but we'll be using the Openteams for the project management bit and quite regardless, we will keep them as the single source of truth, the data sovereignty piece, so farmers can get data there. That's the plan, yep. So, like come by next year, we're hoping, fingers crossed, the world is going to come to an end financially, it looks like but having said that, hopefully we can get our money raised across that time to build a great example, like big rock. So, currently, we're working on the WEF biodiversity credit auction. The current theme of conversations with that we're having this week and last week is like, okay, how do we get a credit methodology for our biodiversity credit? And we go, right, well, ANU is going to write it. Okay. Well, how do we make sure that's credible. All right? So, we'll talk to we've got a call with Ireland this week and with Spain tonight tomorrow. So, we're reaching out to the global networks to go, how can we create a peer review mechanism for accreditation? So, it's just like great example of, right? What's the current problem? Who do we know and how do we kind of solve it, basically,

28:48

yeah, Wardy Rohan style, So, um, I'm trying to think of other questions to ask you about. So, all of these are pieces that are now starting to come together to build the kind of next part of the puzzle. And it means that also now that interaction field is starting to turn global now, and you're working with a much wider source of resources than you have been up until now.

29:32

Hopefully, yeah, that's what we found,

29:35

and what you're building is it's kind of increasing in complexity and interdependency.

29:46

Yeah, yeah, that'd be fair to say, that'd be fair to say that we haven't done this yet. The Funds and Trading - that's coming. I mean, we just haven't needed to address it. But just by way of example, we met with WWF Australia last week, and they had prepared a slide deck where they had us on their slides. They raised \$3 million and then they've raised another 13 post that. That's the project they did in Nevada. Here's us. We're going to raise. How much do we want to raise, and what are we going to do? I was like, That's brilliant. Okay, and they're going, and our job will be to raise the money. Very nice, awesome. Yes. Gosh, that's a good place to be, yeah. Um, so the Regen Funds and Trading, um, do you have kind of a timeline or a point where that in your mind that becomes like pivotal and ready to move into some form of development phase. What would make that? What would make that a possibility, or, you know, give that some momentum,

31:18

Right in order for us to go to the World Economic Forum, option in whatever it is, April, May, June, March, next year? Yeah, March, but like April, May, June, we need to have answered that question, because otherwise we won't be able to put up a biodiversity credit. You. There are two things we need to know. One is the what's the nature of the legal agreement between us and our member? So, we need some advice the lease management agreement. Second, thing we need to understand what it is that the mutual does to hold that connection, and I don't think we're going down the route of setting up a like a separate funds management type capability, because that requires licences that we won't be able to get. So, if we go down that path, we'll need to find someone to work with to do that. There're people we know that reminds me, there's people we know that possibly could, could act in that capacity, and would be keen to do so. In an ideal world what's going to happen is the Mutual will be the counter party. So, we don't need to Regen Funds. It'll be Regen Farmers Mutua being the counterparty, and then it'll be the face of them, right? So, long story short, we'll need it by the second quarter of next year,

and if we go ahead, so it's going to be a pressing issue come early next year. We do need to get some money in the door in order for legal advice. Do I know about getting some legal advice right now, and so, so then that this picture then becomes a lot more solidified and operational.

33:29

And how does that then impact 2024 because that looks like, you know, it's going to be super powered, and you're going to be more than very busy, but also, you're going to be making a big splash, both in Australia and internationally. What does that mean for you?

34:05

Haven't really thought enough about it, really other than like I can imagine, with people just not going to have the resource to manage it all. My son opening a jar of biscuits if you're wondering, chocolate macadamia.

34:58

Yes, we are going to be busy. And we'll need some more resources, I suspect, and like, basically becoming more specialized. So, whereas Wardy and I have been really fortunate to work so closely, to have like, you know, such visibility, interesting. So, Luke was saying the other day that if you're, developer, if you're one developer, you're, you know, you can maximise your productivity, but adding a second developer actually reduces productivity. So, if you go from one developer, you want to go from one to three in order to get some of the scale benefits of having, you know, shared knowledge. Yeah. So anyway, that'll be an interesting process we need to go through as we become, in a sense, more we're already seeing it. Wardy is doing all the work on the landscape impact programmes, and I'm kind of doing all the work on the biodiversity stuff and digital?

36:09

Yes, yeah. Okay, so, um, maybe just one last question, and then I let you go to have some more chocolate macadamia nut biscuits and tea. The development of all of these opportunities obviously requires these collaborative intersections of people coming together and working things out together. How would you describe the dynamic in these intersections, like, what makes them work? What are some of the challenges? Yeah, what are some of the insights around what happens there?

37:00

You've got a lot of ad that we haven't talked about before. So, we've talked about creating, like, your idea of participating architecture is a good one, creating a space where people can kind of communicate, because we've got a shared, shared vision, like there's a shared outcome, so the Venn diagram crosses over, and we both go in the same direction. So that's great. So,

you've got a shared vision, and then you've got a safe space, basically, where it's and trust and transparency. So, there's kind of elements. And I think you've defined what those elements are, you should probably find one-word descriptions. I don't know there's this kind of concept that we've just talked about, of like concentric kind of circles of how Wardy and I play off each other, and so we see each other's, you know, we've got a shared inbox, so we see each other's emails. Is like, just a shorthand way of really staying on top of doing so, like, clearly, there's this dynamic where we're really working hand in glove and then bouncing off others going back. That makes super productive, and that's a collaborative change. And then it's like, well, okay, so then either one or two of us will be reaching out to individuals or groups, engaging with them, finding the common areas of interest, and then,

38:43

So, it's like, feedback loops into, into your conversation all the time, yeah?

38:51

I think so that's the right at the heart of it, there's that going on, yes, yeah, which then helps drive, well, okay, what's the next thing we need to look at.

39:35

I think what's happening is when things get operationalised, they you know, you're starting to repeat patterns. And now it's becoming that's delivery and after delivery comes scaling it, then that's kind of finding ways. And like, if we're successful in getting some cash for more programmes, we'll be employing someone else deliver. It. So that's definitively operationalised. Um, so like Regen Digital, because it's still kind of emergent. We still, you know, still bouncing off each other about, well, this is the way it looks like in the picture. So, yeah, there's some there's probably increasing specialization to some degree. And when we move into the financing side of things, you can see that that's going to be, again, a discovery process so Wardy and I'll be bouncing each other off each other. But then it gradually, once that gets operationalised, it'll probably separate out.

40:45

And how has Luke contributed to or changed or altered the dynamic? You know, obviously he brings in a different voice and adds to the conversation. What would you say is the contribution he makes, besides obviously a different lens.

41:05

Well, it's kind of interesting. I was just asking myself there whether, like, his age makes a difference. Not sure it does. I mean, he's probably got more energy than me anyway, but he had arrived at some of the same places that we, that Wardy and I had like independently in

different structures, and perhaps with more of a technology focus, focus, but like, had some similar ideas. So, when he's connected with us, because, you know what we're doing. So, we've been discovering that in conversations, you know, as you kind of peel back the onions you cut into the layers, um, oh, it's still early days. So, we haven't had, as we've been developing the ideas around the technology, or which is just a tool, like as we've been working through that that's been helping us kind of get a shared understanding of what it is we're trying to do, so that there's been a learning experience. There hasn't been any tension whatsoever, like, it's been like, you know, to get this, to get the line like, you know, lines in the way of creating the same thing takes time, and we haven't necessarily been brushing it in shape or form, but we have these conversations, and Luke might be slightly off, Wardy and I closer together because we spent more time together. So, there's, there's kind of a process of how it's kind of interesting, how it brings someone new into the inner sanctum, really, and the codes are really aligned.

43:16

So that sounds like, you know, that's a really important piece in understanding how you move from one big rock to the next is that I think you and Wardy and now Luke spend a lot of time getting onto the same page together before kind of moving forward. It sounds like you do a lot of work in getting clear before, I reckon,

43:45

yeah, we do spend a lot of time trying to make sure that we both we have a common understanding about the problem and the solution, and recognizing that whatever the solution, maybe we've got it wrong but like, what we're agreeing on that. That's what we're going to do, that's based on what we understand. So, yeah, we it's a lot of time, but we do stay with it until common understanding emerges. Be fair to say, I can't imagine a situation where we haven't.

44:20

Yeah, if you think about these concentric rings, then that would also apply to whoever you need to recruit or mobilise to kind of support what you're wanting to do collectively next round. I'm sure there's a lot that goes into that as well.

44:39

Yeah. Well, so we, we've got someone I met the other day. I'm going, well, she could be really valuable. I don't know whether she fits culturally. And that's, you know, how you I'm not great at that sort of stuff. So like, yeah, I can see that there's some strong logic behind she's a good fit. She does what we don't. So yeah, those interestingly, like Wardy and I had maybe butted heads early on, as in, when we were, you know, maybe establishing the first principles of the

organization. I come from an institutional background. He's probably a little bit more small business nimble. Somehow, we kind of worked through that and then we kind of really do what we can to work through issues.

45:53

So, you're also based in Melbourne, if I understand correctly. And Wardy is in Sydney, right?

46:10

Yep. So that's also quite a quite a big thing, we spend a lot of time on Zoom travelling. Yeah, yeah. So,

46:19

I'm almost done. I think you really helped me understand what I what I was missing. I'm just trying to look at this and see if there's anything else that I need to get from you, but I I think I've got a picture. I reached out to Luke. I haven't heard back from him, but I think is he using his Regen Farmers Mutual email, or is he still on another email? Luke, yeah, is he in Australia, or is he still in the UK?

47:33

No, he's in Australia.

47:40

Yeah. And GoSource - the link between GoSource and Luke, how's that working now?

48:06

Pretty good. I think again, there hasn't been huge amount of contact yet. Got a meeting this Thursday. The work's about to start, basically between GoSource and the rest of the team.

Co-Founders

We thought we were working with WWF, or we were next round of landscape impact programmes, and they came back, not in an engaging way either, like they came back. It was, you know, it took a bit to get it out of them before they actually said, oh, sorry, we've been told internally to work on our current projects, we're too busy. I mean, it was a bit weird. It was a bit weird the way, the way they kind of it unfolded. So, I haven't chased them down as yet. We will, but pretty disappointing in the sense of, like, there's a good opportunity, whatever, yeah, so then that, what else happened? Oh, we've just been flopping around with various things. Um, yeah, that's disappointing,

00:55

Because it sounded really exciting. I think it was like another 20 landscape that's big,

01:06

yeah, I mean, we'll get there, but like it's just, it's, it's odd. It feels like there was something else that they haven't actually told us. I mean, maybe just the way it unfolded wasn't, yeah, but yeah, yeah, it was just odd, like, because it didn't feel right. Didn't feel right. I spoke to ANU...

01:30

She didn't return my call. She just sent me an email by saying her family was unwell with COVID or something. But having said that, she spoke to ANU, and then she returned my email. But then I said I could sense there was something going on there, so I went back, saying it would be good to know your timetable. And then that's when she came out and again. So, like it was just we're not going ahead. It was the way it was handled suggests, yeah, there's something. Yeah, which is somewhat, it's just disconcerting, because, like, that means that somewhere inside the WWF machine there's, I don't know there's something, you know, we've triggered something that's there. Anyway, whatever it is, we'll get to the bottom. Yeah,

02:23

I'm sure your hunch is right. I'm sure there is stuff that they're not you know, they're not sharing. Maybe in time, that becomes more evidence. But yeah, I'm sorry to hear that. I'm just as well. I'm just as disappointed for you guys, because it seemed like so exciting that you were, like, making leap, you know, that felt like a big leap forward

02:46

We also, like, already had a conversation with McDonald's too, and somewhat of a different dynamic there, but in the sense of the person who ostensibly is responsible for the sustainability, the type of programmes that we're involved in, is a was quite close with Wardy's brother for a while, so like he knows her well and so there's a kind of dynamic where she feels like he's

she's always doing in favours, although she doesn't do anything. It's kind of so. So, there's a personal so that. So, it's bit hard to read too much into it, but the same token, it sounds like they're my take on the week was, the risk is that the big organizations just end up going with the career low career risk path of least resistance, dealing with foundations, because they might get anything. But it just feels like that's the low-risk kind of

03:55

the same thing to do,

03:58

Yeah, and that that feels like where that McDonald's. So, we've got a risk that we need to address with respect to our pilot programme. It's supposed to be with McDonald's supply chain. I think, still think that's too good an opportunity for them not to kind of try and get their head around it. But I think that we need to find some way of managing these internal politics anyway. So, the take of the week was, we need a big brother. We need to find some organization. It might be industry fund, but some organizations got deep, deep pockets that goes we want, we want to see this thing come to fruition. So, the folks of those big organizations start going, oh, right, just change the dynamic.

04:58

Out of these apparent negative experiences are good indicators of focus for next steps. So, as you say, it kind of highlights the need for a big brother with deep pockets. You know, sometimes these shocks actually point you in a new direction that is probably more durable and sustainable in the long term, even though it's really hard to come to terms within the moment.

05:32

Yeah, yeah. It's yeah. You know us as resilient, so it is going to bounce off and go right. Okay.

05:42

I just wanted to catch up with you, because over December, I just immersed myself in the literature to see like what was written that I feel resonates with what I was seeing emerge in the case study, so that I could start using it as a to discuss the case. And there was some interesting there were three or four really interesting papers that I'm trying to anchor things around or just use to frame what I sense is emerging and what is unique about RFM. So, I just want to share where I am with things. I'm just going to share it like this, so it what it made me realise, or it gave me a focus. In terms, you know, when I started looking at RFM, I was the broad focus was, how does an innovation ecosystem emerge? Yeah, what, what contributes to its emergence? And the more you know, I looked at the literature, and then, the more it made me realise it's really how an entrepreneurial innovation ecosystem emerges in an emerging

field. So, you know, the field you're operating in is not established. It's emerging itself. So, you know, there, there is, there is something to be said about that. So that's kind of how I'm now assessing RFM with a MLP. And I'll explain to you, there was a there's a fantastic and this is why I also wanted to speak to you today, because there was a fantastic piece in that paper around strategic niche management, but I will get to that later. So, I just wanted to catch up with you on, you know, to get your view on how things have progressed. You know what new insights emerged, how that's starting to influence the way you're looking at this here, and next step? So obviously, region, digital, I'm sure there's lots to talk about there, and some sort of progress that you and Luke have made on that front over the last two months or so.

08:34

So, it's been, still been slow going, like, Luke, there's only one of Luke. And, yeah, so there's, there's nothing kind of material right now. It's like, going right? It's like, there'll be a demo of our traceability kind of product at the end of this week, and that demo will be done by a screenshot but, but basically that bits coming together as a complete piece. So, he's working on the pieces. But we don't have a kind of a launch product, if you like, that's kind of visible at the moment. So, it's Regen Digital. The doing is on; I've got a convertible note by him. I can share it with you if you like, because it's, yeah, it's in draft, but like, it's, I'll just send it to you, but like, it's a good kind of summary, or this is what it is. This is kind of captures the RFM side of things. So, it talks to Regen Digital. One of the things that we've through, that we've got clear about, is, you. How we explain, it's Regen Farmers Mutual, but Regen Digital, how we explain how we fit. And we've been using this a bit lately, but like so there's farmers, and there's buyers, and there's the environment, so there's three stakeholders. So, if you imagine a Venn diagram and those and now, and we're clearly farmer-owned, so we represent a farmer. And so, what we're doing is we're helping buyers engage with farmers to deliver environmental outcome, yes. And the thing is, if you leave buyers and farmers to negotiate. They'll come like settle on a level of environmental outcomes. Yes, that might be below what the environment needs. So, so we need buyers, need credibility. So, they need independent people, independent of farmers and buyers setting the benchmark. So, our job is to bring the buyers engage with the farmers through our landscape impact programmes. And then we've got the project management tool and processes of Regen Digital to help them manage the projects that emerge. And then we have the third thing, which is enabling the verified claims so that we so buyers can buy the outcomes, you know, like, pay for those outcomes, and have a credible outcome, so according to whatever. So that's you'll see is that that's another that convertible note, I am. It's going right. We're looking to raise money to do to build out the Regen Digital

parts of that, those three steps, basically, yeah, so I guess, I guess what I'm trying to say there is, we're getting, and you'll see now I am. We got a kind of a clearer focus of what we wanted. Now we have to go through the process of raising some money to put that forward.

12:05

Great. Okay, let me carry on. Okay, so that's a, that's good progress.

12:14

Well,

that was, that was what I was doing in early in January. So that was, that was like, it was quiet. Went, right, okay, which has been good, I'll just send it now.

12:24

Okay, awesome, great. So, yeah, I've been following the cohort updates on YouTube that also seems to be making good progress. Do you want to comment on that,

12:42

I'm really pleased with that progress. I haven't been well. I've been working on the other side of things, so I haven't been closely involved. Sorry. Let me just write this little draft. I Yeah, so I haven't been closely involved, and so I really haven't been getting the learnings quite as closely as last time

13:29

yes, so I saw that Luke was quite involved in terms of feeding data into those plans.

13:40

Yeah, yeah, yeah. That has been, he did most of that work pre-Christmas. But yeah, we can imagine that's going to evolve, you know, quite significantly resources to do. So, the other bit that's probably, certainly, it's clear in my head, getting a common understanding, but the landscape impact programmes, of course, run 20 weeks. Yes, part of our fundraising is to have someone who's supporting the community of practice. So, we need some way to support the groups that coalesce beyond the programme. That's something we're still working with around.

14:25

So that would be a new resource to the team.

14:29

Yeah, yeah, yeah. So, there's a budget line item in the fundraising, I think, for

14:36

Yeah, um, also love the idea of Regen Tours, kind of connecting the market with the transaction side of the business, which looks like it's another big step forward as well. I'm sure there's a

lot of insight to be gained from that experience. How is that going? I mean, I know Wardy was saying that you hadn't had much uptake.

15:01

It's going to require, just given it's a big commitment to both time it's going to require, so we haven't, we pushed it back, I think, to May now. So, it's going to require time, and it's going to individual conversations. I think we're actually going to what we may well do to help sell it is to have our investor sessions done as panels. And out of those panels, some those, those people that want to go,

15:32

okay, yeah, that's great idea. It's like, yeah, you can imagine Wardy being as happy as Larry.

15:45

But again, it also feels like another important, big step forward. You know, it's like progressing. I wanted to go jump here because I'll come back to that other list of things we did. I put this together right at the very beginning, when I was, you know, when I was speaking to Wary and yourself and others about this, this picture of, you know, they almost like puzzle pieces, these bits and pieces that feel like they're part of the larger solution. And for me, it feels like they act like artefacts in terms of what you develop next, how you develop it, how you develop it, in relation to each other. And so, you know, the Trading in Regen conference was a big what is referred to as a field configuring event, you know, it's like you established a boundary around, you know, the space or the field that you were claiming to operate in and to transform. And these the Regen Tour feels like it's another one of those, you know. It's like how you start articulating what it is that you're doing and becoming so it becomes this really visible field event that is quite definitive.

17:25

So, agree that there's another, it's interesting, slightly tangential, but, like, it's on the same theme. So it's likely, you know, if we're successful in our fundraising, we will get an office in Melbourne, so that, you know, so you know, Luke and our two developers, and, you know, like, so we've got somewhere together, but we, Luke's gone, look, we should just get a warehouse, because he's planted 450 trees - he's doing experiment in his parents backyard. It's in the shed. But, like, he's got the lights, and he's growing white box, like little tubes of white box stock, right? Wow, yeah, he said, so we could do that. So, like, that's just such a good thing for, like, the developers, to be able to ever, you know, rather than just be stuck there in front of a computer, yes, in regenerative trees, like, grow the trees every hour, get up and give them a bit of a spray. Yeah, it has a kind of an environment for members, customers can to come to where

it's a really tangible we're working like you're in the centre of Melbourne, but you're working with people who are, yes, it really interesting, and that coming out with that, it's like, yeah, that's a really good idea. Same. It's kind of creating a, I don't know. It's following a theme, I suppose. Anyway, yeah,

18:52

yeah. It's making it very real. It's bringing the outside in, you know, it's, yeah, and when you, when you connect at that kind of level with what it is you're doing or transforming or contributing, it's, it's very beautiful, you know, for everyone who gets to experience it, or, you know, like people who would come and see your office, that would be mind-blowing. You know, that would be, you would, you would get it straight away. It would be deeply authentic. It would be exciting, you know, it does what words can't do. It does what a presentation can't do. You know that experience, yeah,

19:33

Such a good idea. Like, you can imagine, like capital coming into that space, because I was saying, you know, you wouldn't get me as a banker on the bus, the Regen Tour bus, like, it's just, like, it's just, I'm an introvert, so it's not my favourite thing to do.

19:59

You know, a week on a bus. Oh my, but anyway, laughing. They're going, alright, you'll be just following the bus, and you're, you're like, in your Mercedes or something, your Range Rover.

20:20

Much better idea. Yeah, so I wanted to show you this again, because I wanted to find out from you whether these pieces were like when you co-designed RFM, there were three workshops, and there was an evolution of the thinking over the three workshops. And at the end of the third workshop, you settled on what Regen Farmers Mutual and, and its purpose in the world at that stage were, how did these like individual pieces of the solution come to be. Did they emerge gradually over time? Or did you sit with a napkin over your coffee at breakfast and draw up all these bits and pieces that you felt were kind of necessary or part of the bigger solution. How did, how did these little bits and pieces come together?

21:31

It's really been following our noses like so we're, I think we said before, we're kind of co-facilitating. We're just, we're just having conversations with lots of people, and what I think Wardy and I both pretty good at synthesising information we're hearing, and then we've got the benefit of those first three workshops, was we had a real clarity around who our stakeholder

was and what our objective was. Our objective is to help farmers deliver better environmental outcomes and economics. So, like you know, it's a dual purpose, be incentivised, be rewarded for doing, and that clarity of position is just powerful in all our conversations. It means that, I think because we're reasonably good at having those conversations and synthesising information, we've been able to move from hearing and then going, oh, we need to do that. Start leaving some of these things where we Regen Digital that space. So, with the supply chain verification. Like, we're going to be like, one of the Global Case Studies for the UN Transparency Protocol. Like, awesome. Now we're right at the cutting edge, similarly. So, two weeks ago, I was in Canberra, and we've made just great inroads with ANU, but I was on stage with like, two of the hardest men to get in, you know, the conservation space. So, like the guy, you know, Andrew McIntosh, who's helping with the Nature Repair Market, and David Linda Meyer, who's the other guy that's helping Nature Repair Market. Both ANU - one's Professor of Law, one's the ecologist. But amazing, you know, like in government wings on them. And then we had Ryan Wilson, who's the director in charge of the Nature Repair Market. So, like, it was actually on stage with them. And wow. So that we're able to like afterwards, I was able to pin them in a corner and go, right. I need you guys to give me a methodology. So, the point being, we are operating, you know, somehow, like, because we've been following our noses, and we are operating right at the, you know, at the cutting edge. You know, we're actually helping to push the envelope, yeah. So, it emerges - the things emerge, like we had a plan and like, you go back to the original plan and those five things we did, we're still doing those five things. We just kind of now maybe describe them slightly differently, but those things that we were going to do, which was basically helping farmers understand, develop and deliver. That's exactly, you know what exactly we're doing now, and all we're doing is kind of been working out as we dig further. What does that mean?

24:36

Actually, let me jump here. I'm sorry. I'm going to jump around a bit, but I want to come back to the ANU story. I'd really like an update there from you as well, like where you are with that. But when I looked at the literature over December, there were four main areas that I felt was really exciting. There was this one. Well, there are a whole series of papers on this MLP, socio-technical system. So, at the at the base level here, they talk about niches, and as niches start coalescing around the dominant design, or as a dominant design, begins to emerge in that niche space. It enters into this socio-technical regime space, which is like your well-established businesses, organizations, infrastructure, standards, rules, and it starts influencing the space, either transforming it or disrupting it completely. At the top level, here they refer to landscape

development. So those would be like the exogenous environmental impacts, like global regulatory requirements around environment, it would be around new consumer expectations around consumption, it would be all of those big external, large-scale influences that impacts the environment. So, I loved this model when I found it, because one thing that struck me about the first round of interviews was this understanding of a really pioneering context in which you're operating, there's a lot of new stuff happening. There's a lot of niche activity happening that is like, you know, shaping the space or influence the space. But at this stage, it doesn't look like there's any particular dominant designs that are breaking through. But there are, you know, at a socio-technical regime level and at a niche level, there are lots of people looking for answers to respond to, kind of the landscape demands of the time. So, this felt like this provided a really interesting framework to place what is happening through RFM and its surrounds into context.

27:36

Okay, so here, for example, these are what they call technological niches. So, they would be niches around radical nations that have not yet come to market are still quite rough and ready and not, you know, not ready for market, but have a number of maybe actors operating around it, like universities, entrepreneurs and investors. So, they're experimenting with a lot of new solutions, which is what you're doing at, you know, through the annual through the supply chain verification, through the landscape impact programmes. You know this is where, where you're operating, and why I wanted to speak to you as well, because one of the theories around a strategic niche management so it's like, how do you manage this space, optimally or strategically so that you can get a dominant solution emerging that breaks through into mainstream and becomes a mainstream solution. And one of the theories is that when niches or niche developers start coalescing, when they start learning together, or they start coalescing around a set standards and rules. So, like you were saying, the peatland, and particularly if it happens at a global level, like the peatlands project that you were talking about, that you got quite excited in terms of them knowing how to do something really well, and you knowing how to do something really well, and how you know how you could actually learn together and then progress and build a solution quicker than if you were doing it on your own. So, when you can start hooking up with other global projects like yourself, and start identifying these common standards, rules frameworks, they start coalescing into a dominant design in the states and giving you more influence in terms of making or having means. In impact. So, I was quite keen also to understand how that connection was taking shape. Since, you know, your last trip to Ireland, whether they were, you know, continuous conversations and co-learning, and you

know, if there was anything on that front happening? Does that make sense? Rowan, am I making sense you?

30:27

You are kind of making me think about few things. So no, in terms of your question about Ireland, no, haven't heard they launched a paper with Landscape Finance Lab in December or January, and that was the last time we spoke to them there. My sense was the hadn't really bought into the advantages for us sharing information but, you know, they kind of got that they had. But by the same token, yeah, doing your own thing was basically a sense of where that was at. So, I think this year, there's going to be opportunities as well. One of the questions I have for you is like, how we use your work to play back to different audiences internationally. So that it can start to inform people who are I think there's going to be interest. So, for example, like, I can just give you why I think it's going to happen this year. It's going to because there's interest. So what? I'm speaking at an international Cooperative Alliance conference in Malaysia in May, end of May 30, on the Regen Farmers Mutual model, what we're doing. So, I wanted to hear in the agricultural space, you know, in the environmental space. And I'm one of the other guys from Japan, other than that. So, like, it's, it sounds like it's like it's a good audience. So that would be, that would be a great place to be able to follow up with. Here's some research on, you know, ways to think about this, you know, your type of research, yes, one audience, the

32:49

sorry, just went in May. Is it

32:50

may the 30th?

32:52

Okay?

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I'll go through Singapore. So, like on my radar is to hook up with the National University of Singapore. Someone, don't know, but it's been strong. There is someone I know of who I've been on Zoom calls with, engaged with, but like, via zoom, and she's part of the WEF, and she's at National University, so I'm, I'm hoping I can kind activate interest and to meet organizations like Olam, global food company based out of Singapore, and other Singaporean companies while I'm there. So that's what I'm trying to do - have those conversations about what's happening globally as a, you know, this is what we're doing. This is where we are at. So, we can start trying to find potential, you know, parties, people that are interested in our

model, people who might be counter parties for our Australian farmers. Yeah. So, there's that. In addition to that, there's a, it opens tomorrow. Actually, there's an accelerator around biodiversity, also in Singapore, that got a reasonable chance of hooking up the two of the projects that were accepted last year were like, we know, well out of Australia. I think we compare pretty favourably. So, I would hope that that something comes out of that, that would introduce our models. But the other one that just interesting comes to mind is like, for example, we're got a grant application in, again, with the AFI, or to go in with the AFI for the traceability grant next round, yeah, one of the criteria, the third criteria, is how to push research, and this will be AFI as role, how to push research, both locally but internationally, to understand traceability and again, that's an opportunity for our particular spin on the traceability, and where and why it's relevant, yes. So anyway, so that's why I think that there's, there's, there's hope that globally, there's going to be opportunities to share our model.

35:19

Yes. So, for me, what also struck me when I looked at the literature is that the entrepreneurship literature focuses very much on individuals, and there's very little on co-design, entrepreneurial co-design on collectives. So that is a big opportunity space in the literature is to start describing what that's like. And yeah, so you will see here this niche entrepreneurial emphasis is, is one area of the literature, this emerging, new field. You know, path breaking is another area in the literature. But there also, there is a match around the ecosystem, journey into new spaces. So, I think there's, you know, there's something we can contribute there. And, of course, there's the, you know, the innovation ecosystem, which is what I'm focusing on. So what why this became such a nice model is that it, you know, it gave me a framework to talk about all of these influences, and, and, and show why this is quite a unique it's quite a unique and pioneering space to, you know, for something like RFM to emerge adults and to shape and to influence. And so, when, last time, when I spoke to you, I had this diagram of the where was it, this interaction?

36:58

Can you go back to that previous slide? There's just one point that I think, really, in my view, is going to be a landscape development that's that is. So, these landscape influences up above and the multiple niche players. So currently, the world has been stuck in a voluntary regime for carbon and biodiversity, right? So, we're trying to help people do better on the world's transitioning to a new place. So, what's been one way of describing that is the buyers of outcomes, who finance outcomes? Yes, 95% of that money has been a compliance globally. Yes, 50 billion of carbon credits and 25 months voluntary. Right up till now, it's been niche

because it's been voluntary or compliance. Okay, so, yeah, yes, right. So, so you would, you might say that we're in the niche, but anyway, so there's something going on there. But what's happening is the landscapes moving so that, in our view, up till now, it's been the marketing budget of corporates. Yeah, marketing budget on managing these, you know, this, this area, and with these new accounting standards, yeah, the marketing to the risk budget. And the same as these guys, the risk guys, sits next door to the compliance guys, but the risk guys, if you're putting it in my annual report, in our annual report, yes, we now yes to delivering into it, that's going to be pretty fundamental.

38:55

Yes. I'm glad you raised that. Yes, yes. So, what I was also, if there is anything to note around all these multiple niche players in the market moments and how maybe they are contributing either to the emergence of a shared understanding or the emergence of standards and rules that start consolidating a space. It would be really interesting to understand that and to know that better. From my discussions with Kate, you know, she made me aware of a lot of the stuff that's going on in the in the niche space, but just superficially. And I suppose it's important to understand maybe if there are any significant influences in this space at the moment that is also shaping the field, or contributing to a better understanding of standards rules that contribute to some form of consolidation in the field.

40:12

So, this is going to be simplistic, but in a compliance market, the actors, the brokers, the green collars - these guys, they're motivated to, they're taking advantage of a government, something by fear, right? And the objective is to advertise the rules, to make it yeah, maybe deliver a benefit, like an environmental benefit, but also to maximise their return. Yeah, that was the reasons why the mutual started up, was going, you guys aren't the deal. Yes, that's the nature. So, I'm being simplistic when I say that the nature of a compliance market is there's a set of rules, and we're going to try and money around those using those rules. So, find the gaps on the way to make money. And that's why you run into problems with, you know, people taking advantage of it, and they're not being a carbon project. What have you, as we move from that compliance to risk, the dynamic changes. So, like, that's so the voluntary markets are more innovative, if you like, but like, certainly, in my view, that, like, it's kind of like the dead hand of government, basically, if you're talking risk, then you've got a different driver. You don't have government saying, yes, you have to, you must do this. Corporates going, we've got to do it, and we need to find the cheapest way to do it, basically the most effective way. And like, it's cost-effective. So, there's a different driver. So, I suspect that that's going to be, you know,

for example, you know, we're seeing, we're seeing the start. Of corporate starting to understand they need to engage their supply shares. Yes, and hence, we think that the Landscape Impact Programme is like just an amazing way for them to engage their supply chains when they're in another way, or there isn't treat the farmers as people who need them, and kind of deal with them individually, and say you're like anyway that we think the Landscape Impact Programme offers a way to kind of engage farmers so that they can corporates achieve their in setting goals? Yeah, so, so. So, I guess what I'm saying there is like that, because of this evolution from marketing to compliance to risk, you're going to corporates responding in a different way which should give rise to goals or that window of opportunity. It's like, it's that window of opportunity, yeah, that you're talking about, which you know they highlight here as well. It's like when you have these factors converge to suddenly create a window of opportunity. That's when you start breaking through into mainstream. And it sounds like you've got all the ingredients to kind of lining up be able to meet that window of opportunity.

43:36

Yep, I'm going to send you something else as well. So, I'd like to get your thoughts on this. This going to send you our three one pages, but the one pager, which kind of describes having, I've had a crack at the weekend, just describe what we do.

43:53

Oh, good, because I was yes. No, carry on. Let me not interrupt you.

44:02

I can share screen, if you like, but um,

44:04

yeah, do that. Let me stop my sharing.

44:13

It's constantly evolving, isn't it? But yes, so as I say, we've got three stakeholders, buyers being supply chains, governments, investors, engage with farmers to protect and restore the environment. Buyers. So that's what that's saying, is, buyers are our customers. Yes, farmers own the business. Buyers are our customers. Yes. And then the way we do that, we connect farmers to buyers to do those three steps. So that's the five steps, simplified to three. So, we help these both discover the individual and collective actions that can deliver good outcomes. Then help develop the projects, develop and fund the projects that can deliver those outcomes. Yeah, and then we then enable the verified outcomes, so the reporting, so you're absolutely right, the three ingredients, the Landscape Impact Programme, the technology, the project manager and the resources and the deliver being, you know that verify, verified claims they're

coming together with package. Yes. So, the RFM offers the three things that in setting off, yeah, investors.

45:36

And this is, this is a step forward. Yes, anyway, if you have a read it, tell me give me any suggestions, but I'll just send it to you as well.

45:50

Great, because this weekend I sat with I went to know of your website, your Facebook, your LinkedIn and I was looking for how you commonly talk about yourself, and I didn't find it.

46:09

I think we're starting to arrive at a place where we've got that's a really clear, yeah, who we are and who we engage, and what we're doing. So, I think we've got the ingredients that coming together. And so, yeah, with a bit of luck, we'll, we'll actually, yes, how to map onto that?

Yeah, and yeah, no, I think that's, I think that's great. And I'm liking also the specification around in setting and offsetting and kind of being clearer about that. Yeah, so I think, I think that's a great step forward. I'll definitely have a look at it.

46:58

So, when we say investors, it could be philanthropic investors in environmental projects, but I'm starting to understand that there's a one of the key opportunities in the agricultural space is to is the refinancing of the 100 and 15 billion of agricultural debt in Australia. Why do I say that? Because the banks are hopeless and they don't haven't yet realised that all of that \$115 billion of debt is going to be green. They've got these green loans that no one's taken up, but they haven't turned around. Well, hang on, see why isn't the rest of our portfolio green? It's come on just it's a legacy. But so, fingers crossed, but we need to move into a space where we starting to have conversations pulled together, a Braintrust around, creating the capability to finance farmers at wholesale, you know, like it's numbers. So thankfully, I know quite a few people in that space, so we'll have a good crack at it to be, yeah, we need to solve, we need to solve how we're going to fund our farmers from day one. But it feels like, feels like it might be the opportunity, you know, the way we get someone like an industry fund to go, right? That's, that's what we're thinking, big brother wise, yeah, industry fund could be the debt funder, the investor, the debt investor, yes, in agricultural farms in Australia.

48:45

Yeah, that's a creative way of thinking about it.

48:50

Yeah. All right, sorry. Take it as take me back to where we were. I'm going to shut up.

49:00

Also, I realise I've got two minutes left of your time. Let me just go back here. This has been a great conversation. Thanks for so the other area that I'm so this, as I said, this MLP allows me to kind of define what I was talking about in earlier presentations as the interaction field. I feel like I can now, you know, talk about these levels in the interaction field and how RFM are actually influencing every single level here in terms of shading and emerging fields, you know? So, it becomes a really beautiful framework to tell that story. So, what I've started doing is really just identifying, you know, what you're doing in that space - mechanisms, processes, the effects of all those activities, your you know, your fields, configuring events. But the thing that I want to understand a little bit better, because I think there's something in it, is what I was referring to, are these collaborative intersections, like the landscape impact programmes, where a diverse range of people come together with a diverse set of inputs, with a diverse set of motivations, and they start creating something together, and in that process. They probably learning a lot, they probably seeing the world through a new lens. And they probably are not just co-creating a solution, but through the process itself, it becomes personally transformative. Or, you know, for the organization that participates, for the NGO that participates, for the individual that participates, because I'm sure that people get a lot out of it. So, it what I showed this to Wardy the other day, because I said, like, it feels like in those landscape impact programmes, this is probably what you're doing, you know. And, and then that then becomes, and before I spoke about ecosystem synchrony, I'm now talking, I now am thinking about ecosystem configuration. Because now what that does, it starts in these collaborative intersections. You start creating these very clear pieces that you know. You understand how they structured, you understand how they work, you understand the resources you need, you understand the outputs, and you understand how they link to other things, and so that that becomes, you know, really cool to building the ecosystem. So, I want to go back to people who have been involved now in these cohort experiences, to really investigate what goes on there in more detail, you know, to really understand what the levers are in this process, more definitively, because I think that this, these collaborative intersections become powerful points through which the larger ecosystem is configured,

52:34

yeah, bringing in some people from the original CO designs as well. You might, you might want to go, oh, start just to touch with it. It'd be just interesting to see whether there were similarities or what the differences were.

52:52

Yes, that's a really good point. Yeah. So, for me, it feels like you know your first phase was about co-design and legitimising. I think you're in this phase now, which is ecosystem solution, co-design, and you're orchestrating that. You're orchestrating all the bits and pieces here that are part of the puzzle, you know, that are part of the bigger picture. And then I suppose you, you know, finally you go on to becoming the ecosystem builder. When you start linking all of these, you know, these collective outputs and capabilities locally and globally, to configure an ecosystem and deliver to a larger ecosystem value proposition. So that's the line. That's a frame I'm used right now to tell your story. Does it resonate with you?

53:57

It does. It does.

54:05

Yeah, share my notes later on your side. Sorry, I'm going to end,

54:13

what's going through my head was like, yeah, it's, it's, we still, we're still kind of teetering on the verge of, like, ah, is it going to succeed or not, even though we've done so much kind of thing. So, there's still that, you know, there's still this kind of overcome, you know, the inertia of the big brothers. And I'd be, before we finish, I'd be really interested in how you're thinking about using this to engage with you know, others. So like, is there an opportunity for you to use this research and to you know someone like, for example, the National University of Singapore? Is there a way for you to kind of find your way to. You know, actually sharing your knowledge with them, about or with the, you know, the ICA people might go, you know what? This is a really good thing. It'd be great to understand, what are the drivers?

What we didn't talk about was ANU and the progress on that, or the certification and the progress on that,

1:00:34

I will give you a real quick update. Yes, so just the verified claims, the certification is amazing. We just, some ways, we lucked into the situation where we've got these amazing guys from GoSource, and the principal guy there, who's running it just as a brain the size of a planet. And he's lovely bloke, and he's, he's crossing Europe at the moment. He's back in this week. He's, you know, he's, he's got a plan for how to get the global adoption of this protocol in place. That's that, to me, is like, that's pretty correct, yes, yeah. And he's got doing it. He's engaging the UN he's got a pledge, kind of, you know, government signing up, corporate signing up, and then he's got the depth of detail to, kind of, so, so I'm a believer in the in the in what's being

proposed, that, like, it's, it's a, it's a way for supply chains to be or supply chains, anyone who wants to prove a claim and get rewarded for doing it. It's a way of doing that in a decentralised manner that is so it can be used by impact investors. It can be used by we're going to use it for everything, basically. So, certification project is basically coming together, but it's got a big future. I'd be the way I'd describe it, and we're pressing hard to now start presenting it to people. So, our next step is to get in front of McDonald's with right there's three things you need, because they don't even realise this still. So, they're swimming around in what they're doing, like it's going in order to meet your needs, you need to have a way to engage your farmers, right? The current thought is, we go through a processor until and the processor tells the farmers they need to send them information or do it remotely. It's like, right? Okay, well, we've got another way of doing that. This is the way, yes and then, but you need to be able to engage if you want to actually do in setting which they wanted around your carbon emissions, then you need to actually invest in projects in those landscapes. And the way to do it through a landscape Impact Programme. So not going to do that through a process of going whatever. So, yeah, so we've got a model that says, from a certification perspective, that allows for that to meet McDonald's needs. We think so that's certification on the ANU. I think are we talking there like so ANU, is relationships really good as in as describing we're pretty deep now - know that various people we were hoping to use the work they're doing for the part that DQ Department of Environment, whatever ANU's doing, was commissioned to do some work on the monitoring, monitoring framework that would help inform the nature repair market. Done that work they submitted a couple of weeks ago, three weeks ago, and they were going to, they're doing a case study on the box gum grassy woodlands. We were hoping to use that case study to turn that into a methodology for the breath auction. And what's come clear is that methodology is not going to be fit-for-purpose, because it doesn't allow for productive landscapes. Doesn't allow for grazing, right? So, it doesn't work for farmers, yeah. So, in my meeting with Andrew Mackintosh week before last, with those three, he said, oh, what you need this? We've already done that, this Australian biodiversity certification. We can turn that in our methodology. Trouble is you need to pay our 60 grand or find someone to pay a 60 grand to do that. So now we're in the process. I was exchanging emails with him on Friday. We need to go and find 60 grand to get them to do the work as soon as possible, so that we can then have a methodology. We can start building and out of methodology. It's very, very much in the biodiversity space. It's very, very hard to have a conversation with a buyer, because, like, what are you talking about? Yeah, so and that methodology, the base methodology we will be able to adapt to different ecosystems, but the first ecosystem will be the box gum, yes, which is

opportunity. So that's where ANU is at. I've got this great relationship with ANU Sustainable Farms, and they're part of our Victorian project. But the WWF, you know, falling away is such a tragedy. Yeah? Because that was in partnership with ANU, yeah,

Co-Founders

Fine. So, yeah, we've got six landscape impact programmes, a cohort of four and a cohort of two and one cohort at week 17. So just at that really busy stage, trying to get their thing right. And then there's two that are just at their starting stage, so they're going through onboarding all of their farmers. So, I'm finding myself having to do quite a lot of very hands on. You just have to do the time. Yes, yeah. And that means all the other value adding products, you know, have to fit around that. So, it feels like, yeah, like today, I got your message this morning, and I read your message, but I didn't have time to read your document. Between that the actual work and being solo dad while their mom is in Sydney tonight,

01:08

Yes, no worries. I also understand it was like last minute, but I just felt like I was at a stage when you get so locked up in your own brain that just need an outside perspective, you know? And I've been lurking around in the valley of despair. I have just tried to get my head around it all and how I approach it, and how I analyse it, and how I begin to present it. You know, just this, like, yeah, it was hectic.

01:50

So is it a thing that you can do as a as a standalone innovation ecosystem? Don't you need to sort of contrast or have an AB to compare it with, maybe?

02:07

Look, I mean, I think it would be nice if there was another case study, but a single case study on its own is enough. My struggle was, how do I approach this theoretically? And so, I've landed in a place where I'm looking at it as a process. So hence, what I wanted to talk to you today about was the phases, and what happens in each of those phases, and what can we learn that and how does that add to existing literature? So, I've decided that, as soon as I got clear around that, it became simpler. I could, like, you know, plot into the beginning of it. So, the process theory approach is okay with a single case study. So, um, yeah, it would be, it would have been wonderful to have two comparative case studies, but I think we're learning enough from RFM to make it valuable. I think other thing that also where I wanted your input today was right from the start, I felt like context mattered a lot, because it seemed to play into everything RFM was about, you know, like this confluence of so many macro-level evolutionary developments that you know, and I start talking about what I also wanted to check with you, so I got some insight from the interviews around what those macro evolutionary developments were, but I had to go and do some more online exploration to really understand what it was all about, because they're all quite complex in their own right, like sustainability

reporting and how that's become, you know, so complex, and there's so many pieces to that puzzle. So, I also wanted to check that I'm understanding it correctly. Then the NRM story, the community-based natural resource management and Landcare phenomenon, was also felt really important, and I found one or two nice papers on the state, federal community links in NRM that it just like helped me really understand how valuable that is, how unique it is to Australia, but how valuable that is in terms of the capability and the infrastructure, the multi-level capability and infrastructure both the last three decades that like link you straight into community, that felt very significant. And it felt like that was really significant to Regen Farmers Mutual, then environmental market stuff and the nature repairable and that, you know, like we, I mean, I'm sure I still understand it quite superficially, but I wanted to start and then regenerative agricultural, of course, I wanted to start connecting these evolutionary developments and why they are significant, and how they become interconnected and co-evolved. You know, how they start really co-evolving, and how they contribute to a market opportunity, a window of opportunity that Regen Farmers Mutual steps into, but at the same time, how these coevolutionary evolutionary developments begin to contribute to not only a window of opportunity, but an emerging, new field In which you innovate, you know, and how, and then also, so then assessing that in a multi-level context. So here are the big, top level developments, but there's a socio-technical regime, being agriculture, conservation, you know, all of these established bodies, institutions, but then a niche level, a lot of the niche innovations that are starting to happen and to change up the field, and they might still at this point, be quite diverse. They are also the link between the socio-technical regimes and the niche players, and how that's also starting to start bringing new influences into play and also starting to contribute to this emerging field that becomes, that is, becomes increasingly co evolutionary. And so, I used so, so I wanted to set that scene and why that's important. And it kind of made me feel that an innovation ecosystem doesn't just emerge at the point of people coming together to do something, it emerges three decades before, you know, so like the without all of that capability and priority growing over three decades, you wouldn't have this window of opportunity, and you wouldn't have the setup, you wouldn't have the potential, you know, the potential. So that became my first insight. The second one was that if I looked at Regen Farmers Mutual in this context, then I would say that you are creating a marketplace intersection. So, you're creating an opportunity where the where these developments intersect, by putting the farmer at the centre of the solution in this intersection. So, I call it that you have engineered in your value proposition, this marketplace intersection.

08:54

I agree that there were preconditions, a perfect storm of at the same time as we had COVID, which was enabling us to get people, we had a contingent of what were essentially landcarers who'd had 30 years of preconditioning about group work, who were worried about the carbon markets taking a lead from what had happened in the water markets. So, I buy your idea about preconditions being a necessary for innovation, because we didn't do that. We didn't make those preconditions – though we were pretty conscious of them, like, whether it was gut level or thoroughly researched. Rohan and I. I started like iterating ideas, without the commercial model established because it just sort of innately made sense, like if you had all of those things working, then there'd be, in your words, an intersection where there should be an opportunity for a mutual, so it wasn't, yeah, it wasn't all our doing. There was certainly a context which made it possible to do at that time, and maybe impossible to do any other time, except for that time, which makes it very hard to replicate, right? So would another mutual be able to establish now, when everybody's wandering around the state, and they all need to see all the country, and they need to see the whites of your eyes again. And they're not prepared to sit for, you know, two hours at a time in a zoom session co-designing, because they've got shit on. Yeah, it was pretty lucky that you had the right skills in Rohan and I, the right preconditions and the right exactly the catalytic period, a period we could get co-design-done so,

11:37

And the fact that you brought fantastic, facilitation, you know, co-design skills and facilitation skills. I mean, you, you know, you bring these co-design templates to a process that then enables a group to get to places quite quickly - your fabulous facilitation skills, how you kind of hold everything quite openly and allow people to, you know, get to a place of agreement. I think you're really skilled. You know, if I watch the recordings, you're so skilled in terms of holding a space and providing a process that helps people move to new places very quickly, yeah, so I think that's a really important skill. I think the other thing that I would love to hear how you feel about it is that that whole concept of an interaction field, you know, I also put that in the context, because I felt it was important that what these four coevolutionary developments were doing is that they were emptying out into a larger interaction field, where people were having conversations, trying to make sense of things, starting to link things, and that, I think that interaction field is also kind of a birthing terrain, you know. And I think what you have done very effectively is, and we can have a look, when we look at the phases, you will see that, I think what you've done very effectively is start articulating what that emerging field is, or could look like what it's about, you know, like a big kind of sensemaking, sense giving. I think the Trading in Regen conference was a great example of how suddenly that

emerging field became visible to a lot of people that previously couldn't see it. So that's, I think, the first thing that you've done is that, I think, through LinkedIn, through your conversations, through the conference, through the other conferences that you attend, like that, you've given voice to a field, you've articulated what it is like so that people can understand it. But at the same time, you've also created a voice for Regen Farmers Mutual and a position in that field you know, like you've been you and Rohan have been quite consistent in terms of how you talk about Regen Farmers Mutual in that space, in that you know, that's filled as you, as you set it out. And then I think that as you move to phase two, which you're now in, I think you're starting to really ground yourself in a very particular space, but also, at the same time, really also deepening the understanding of what the field is about.

15:20

I think that's right, because you end up doing lots of co-design, and there's facilitation. Rohan and I think approach it differently, but this is a shared thing. Is we then go away and we have shower thoughts, or we, you know, end up writing a piece or a thought bubble, which is a synthesis of those bits, and then we kind of publicise the synthesis right like, if this and this are happening, what's that mean to farmers a conversation that we ask ourselves? Or if we're hearing this and this and this, what do we need to do to enable that to happen? And so, there's a nice little cycle, I think, from the interaction field through synthesis into definable like structures or actions or events or points in time at which we say, okay, well, we want that to happen. I think you call that grounding. So, there's an awful lot of grounding going on at the moment. We've just had our first CER project registered by our first farmer; we will have had 10 farmers by the June 30 who have CER projects registered. And we've got, you know, six new landscapes that well, you know, four of which just a basic away from being at where the Traprock is right. And there's a reality to the traceability work now where we're like, oh, wow, we're really verifying the credentials of carbon emissions in the beef supply chain for so there's lots of firsts and lots of proof points happening. I'll give you another example. You know, when we started the landscape impact programmes. They were mostly funded by government, so Queensland, and then New South Wales, through the LRF, and then PIPAP, and then we got through Landcare, some philanthropic money. But the next three are really fascinating. So, there's the peak body for cotton research and development, the CRDC. They're called they're funding a Landscape Impact Programme, the Great Barrier Reef Foundation, who are funded by UBS, the bank, the Swiss bank, or French bank and then Microsoft, who aren't interested in carbon, who have got a water net zero philosophy, and they only try and make their catchments wherever their offices are. So, it's the Sydney catchment and the Melbourne

catchment rather than really regional catchments, but you know, that still has us giving, getting a new Landscape Impact Programme. So, it started with states, and it's gone through philanthropic, and it's definitely moving into Foundation, corporate now. And the other thing we're doing is I'm working on a self-directed version of the landscape Impact Programme. So, it costs about 150k to have me run a landscape Impact Programme, but we think we can make it better and create a programme so that groups that are maybe 20 000 25,000 maybe can take themselves through what it takes to locally, design and create, but they still get that important intervention of, you know, the mapping and the tech, and they get the investor session, and they get the field trip, and they get support to onboard. Their farmers and things and to do their financial model. And so, I reckon that there's like a there's a real momentum in the Landscape Impact Programmes to get 100 of them done between now and the end of 2028, right? And that won't happen if they're all facilitated ones like, yeah, I just think that there's, yeah, I've gone off my point, but I do think there is this thing where we have discussions, we synthesise, and then we take actions, and then that just leads to the next you know, it's incremental, maybe, but it's not incremental as in slowly, incremental. It's incremental as in accelerating quantum leaps. Yeah, yeah. Accelerating incremental, rather than just another unit, it's like six units or

20:59

Yeah, yeah, yes, exponential, yeah, Wardy, can I share something with you? Because I think I'm loving where this conversation's going,

21:10

and share screen capacity so go. Yeah,

21:13

yeah, okay. Because, Okay, this one here. So, this is what I wanted to share with you. I mean, we are talking about it anyway. So, so these are the phases, and I've named them, and I'm also wanting to check with you whether the naming of it resonates. I've called phase note that macro level evolutionary development phase, right? So, you know, constituting and creating a window of opportunity, and also recognizing that COVID was, in itself, a reconfiguring event, you know, and how it also brought what is referred to in the literature as new social materiality, which is human technology, connection and capacity, that kind of really ramps up what you're able to do, you know. So, I think COVID really was, it was a major reconfiguring event in that sense. I'm also keen to want to go through the phases also identify how they continue to, how these evolutionary developments and maybe new developments begin to influence each phase as well or play out in each phase. And I'll one thing I noticed in the New South Wales share and show and share was the identification of, you know, the development of legislation around

ACCUS and carbon trading, as opposed to biodiversity and so that, like the disconnect between how things started out, how they are evolving, and the complexity that that does you know that disconnect creates in terms of you having to navigate your way through things that you know, maybe if they were developed together, they would have been developed differently. They wouldn't have been a financial product, as opposed to a credit, you know. So, I picked up like, that's a really great example of how the evolutionary developments is kind of creating other complexities in the environment.

23:45

So, the first thing, yeah, are you familiar with the pest, political, economic, social and, Oh yes, yes. Not that long ago, I was thinking about it in terms of the political evolution of like, how we are internalising what were previously externalised. Costs of climate and environment is a constant. So right now, they've just put out a biosecurity levy on all farmers, and then the National Farmers Federation is pushing back against that. I think at a level of political the government might well get rid of the current Clean Energy Regulator. It might be all put back till after the election and be a policy platform for the current government to say we're getting rid of our carbon methods, and we're including biodiversity, and we're co-mingling them, and we're going to call them something. Else, and that'll change the whole, whole setup for everybody again. And I suspect that that evolution is always happening. And economically, there's an evolution or that we, you know, talking about the convergence of agriculture and climate and environment markets that economic evolution as their reporting standards insist on that convergence. And then the social stuff we're learning. You know, our insight was that it's not about individuals, it's about groups and landscapes, and we're learning how to build that social infrastructure. And I put up a thing the other day about every environmental project sort of a social project, but the bigger the environmental project, the more social infrastructure you need to have there. And if you only think of the environmental project as like an economic transaction between individuals, you won't understand the need for that social infrastructure, and it's fucking invisible. And then there's the technical infrastructure, or technical evolution that's going on. And I mean, like the UN TP, that United Nations transparency protocol and the traceability work with the verified credentials is literally a moving feast, like people are working this shit out right now. So, I think what, what I'd say, is the pest model is constantly evolving and informing all of these stages, right? And don't know, like, where you are in a pest model, or one of those elements of the pest model, and where you are in the phases, they kind of have to align a bit as well.

27:09

Yes, yes, that's great. Thank you. Thank you for introducing that, because I think that gives you another framework to communicate all of these moving feasts. The one thing also, what I, what I'd really love you to do when you have a moment is just have a read of how I've started writing about RFM. Because what I say is that you know you're creating this marketplace intersection, and you're using, I call three mechanisms to make that happen. The one is Landscape Impact Programmes. I have to remind myself, actually, maybe three. Mechanisms. Let me just find that document. I actually, I think I have it, yes, somewhere. I just want to I'll come back to it. I'll connect it three mechanisms. But the one is the but the connecting mechanism that holds it all together is the platform. Is the, you know, if it connects everything. But I'll come back to that. Maybe when we have five minutes towards the end, we can have a look at that and see what you think about it. Yeah, otherwise, so, So, phase one I've called legitimising where I think, and it's discovery-led, co-design, farmer-centric business model, where RFM are outlining an emerging field and your position in it, right? So, kind of that is like, what's at the core of it, and the phase is about farmer-centric business model and value proposition in this context. And the kind of core process in this is shaping and framing the emerging field and the and developing a voice and position in it, magnetising so charismatic connection and advocacy through conversations and events and with influences and networks structuring through co-design, so putting a structure to this co-design, a business model, value proposition and advisory core and your leadership, confirming your leadership, your leadership of the and then demonstrating value creation and capture potential through the pilots. So, you know, your first phase of the Regen Digital, the Traprock Landscape Impact Programme, kind of gave you proof points, really, that you're onto something valuable, and also gave you a process to kind of kick it up to next level. And obviously the Trading in Regen conference was kind of the highlight of that process. You were now, and then you had to stay, you know, and people were acknowledging your value and your contribution. So, phase two, I've called Prototyping, and it's about because I see like using the landscape impact programmes, but you're also adding extensions like the certification, the verification and certification, the biodiversity credit. So, they're all kind of extensions of what happened then in phase one, but now the prototyping is like, really, it's kind of, it's almost like distributed prototyping across the landscape. So, you are taking the pilot model, and you're applying it on a much larger scale, across a diversity of landscapes. And out of those, you will have, like, a confirmed, solid process that you know, you can get onto the next phase of replication, like exponential replication. So, it feels like this is a solid prototyping phase that you can lock down, you know, the verification, the landscape impact programmes as a product, as a product ready to take to

market. So, I've also called this like a market testing phase as well. So, it's product and extension led, but it's also about market testing. And here you're defining the scope and place of play in this emerging field, you're kind of starting to own your own playing field in this in this emerging field, what also became evident, I think, in The New South Wales, show and share what this important point Jackie made around reframing roles, you know, like we're up until now, there have been very individual approaches to these things, conservation, environmental markets region, you know, where everybody now has to get out of their head, their individual and kind of reframe it as a collective system solution, as opposed to a, you know, a farmer solution and environment environmental market solution. So, there's like it becomes through this process, it becomes evident that there is a reframing and re identification happening here,

33:36

Something like the difference between a personal decision and a community norm, right? And what Jack wants, and don't blame her for wanting it, but might be a bit utopian is that the community norm is for farmers to group and take collective action to protect their shared kind of value. And she's a real believer that the way that the water market ripped the farming community apart was it focused squarely on individual, short term economic and so now Jack's really sensitive to regenerative, to economic and environmental and really sensitive to we need to be together like that's our protection, and whether that is reflected as broadly outside the Western Murray is really I'm not sure. Jacks is amazing and eloquent, but if you gave some of the other farmers in different regions, they might not be as singing from the same song sheet, and they might still think individual actions and individual short-term incentives are still sort of personal over community norm. And establishing a community norm? Well, we're doing that for the first time, right? So, what you want isn't well proven, you know, so a community norm is usually well proven by anecdote, by personal experience. Everybody's experience of co-ops in the last 30 years has been a demutualisation of those and Landcare has thrived, but cooperative action in agriculture has disintegrated generally, and Landcare isn't on a thriving path right now. It certainly has been so what you know, like that instituting community norm. That's what we all want. But it is, it is a battle between that worldview or that set of values, and the set of values that, yep, individual, isolated, focused, correct for the person, actions are the best possible action, and if we all do that, we're going to come to a great outcome. But I think what Jack is saying is actually, because the environment works beyond the farm gate, we actually need to tie collective action and community norming and environmental outcomes to

a bigger thing, and whether the money is there, the shift everybody's thoughts. Well, sort of say, yeah, yeah.

37:33

So, the other thing that like plays up big time in this phase is still those orchestrating developments through collaborative interventions. Like, I think what you really have done really well is pulled together so many diverse contributors and like that was very evident in the show and share was how everybody brings a piece to the table that then enriches the entire group, you know, and like, shift the capability of the group enormously in a very short space of time. All that templating, all that, you know, lovely content that comes together in these intersections is very, very powerful. I think it has such powerful multiplier effect. So, I really also want to spend more time examining the impact of that in this phase, because I think it's very evident in this phase, and sort of it was visible in the first phase, but I think it's kind of exploded in importance and in this phase, in across all your projects?

38:42

Oh, I think that's right. So, like just to confirm what you've said in the legitimising phase, we'd be much quieter until we'd actually done it, and then we'd talk about the synthesis and our thoughts on it. Well, kind of learning in the open, right, especially with those cohort wide meetings where everybody is publicly saying to everybody else, oh, we're struggling, and we're not quite there, you know, like, or, you know, compared to you, we didn't do that. And, man, I think that's a reasonable thing, that our prototyping is in public. And, yeah, that's probably got risks and rewards can scale quicker. But like it's not clear to me that the Northern Rivers have got a great team. Tanya, for example, is an amazing thinker, but we but we might not get a transaction up there for a couple of years. Is because it's, it's in a market that water doesn't, or flooding in that region isn't. Nobody's going to pay for it, right? Like anyway, I think prototyping in public is accelerating the amount at which we can share and learn and help people far more than we were in the legitimising phase, like we were preaching to our choir in the legitimising phase and in the prototyping phase, it feels a bit more risky, like we're talking to a broader audience and trying to scale it outside of what the previous experience was. And so, there's more public embarrassment and more public resonance. Yeah,

40:59

yeah. The other thing that I noticed, and it was quite interesting to get raised in the show and share, is like this, your infographic, I think are fabulous in terms of building an understanding of how you really consolidating your value proposition, what it's about, how it works. I think these are powerful mechanisms that help you again speak to the field and claim your position

and your capability in the field. You know, I'm sure you this is part of synthesis process, yours and Rowans, like, as you begin to see it, you kind of draw it. And I, I think that feels like it's become an important process in this phase, because I've seen a lot of attention this phase, you know, from LinkedIn, and maybe some of the presentations that you know, the video presentations that you've shared. So, I feel like that has been an important piece to the stage.

42:23

Yep, I've just realised I just read what you said below your prototyping through co-design, and my whole rant before was exactly what you've said. So, I should shut up and let you continue to talk.

42:39

I love the way you explain things. Oh, and then there's, obviously this phase is about showcasing and market testing, which, you know, kind of I've said before. Then phase three, which, yeah,

42:56

just, did you know the auction isn't going ahead now. Oh no, yeah. So, like, the World Economic Forum have kind of got a problem in and they've, they've pulled the auction partly because, I think looking from the outside, America and Europe are kind of going in opposite directions. So, Europe is definitely committed to carbon and deforestation and transparency and the UNTP at the same time, America pulled back from scope three carbon emissions to having their SEC companies just report scope one and two, which means they're not reporting 90% of their emissions in those US companies. So, they've kind of put themselves as the US versus Europe and Asia looks like it's heading towards Europe. So, Hong Kong is including scope one, two and three. And so, one, two of the IFRS, but the US isn't. And so, you've got a lot of interested people in Australia, going, well, fuck we sell beef to Europe, and so does America, and America's beef is going to come in far less carbon intensive than ours, because they only need to count scope one and two. You see things like McDonald's saying, where we're not doing an Australian sustainability reporting. We're going to report from the US, even though 70% of the beef for their burgers globally comes from Australia. The sustainability reporting standards of Australia are too onerous and. And so that move back to the states for reporting purposes. And so, I think, what's the point here? That the point is that the WEF auction was a real lighthouse, catalytic opportunity for us. It's pissed off, and what we've got instead is the Global Nature-Positive Summit is happening between the eighth and the 10th of October. So, I put together a little pitch and have pitched the federal government that we should have an Australian showcase of biodiversity credits so us and the other five from Australia that

were going to be in the auction, the six of us should have a showcase at The Nature-Positive Symposium. It won't be as good because it won't give a price signal. It's not corporates voting with their wallet, but it's a sort of trying to keep that lighthouse moment for us, that's a real, real kick in the guts around biodiversity, that that weft auction isn't happening, but there's nothing we can actually do to turn it on. You know?

46:19

Oh, that's a tragedy. Yeah,

46:21

yeah, but just so you don't inaccurately report it, yeah,

46:27

yes, thank you. I wasn't aware of that, yeah. Where did the funding finally come from?

46:37

From the Land Restoration Fund, the guys that did the Department of Environment and Science for Queensland Government has the Land Restoration Fund. They've funded the Traprock group, and they've worked with ANU in the past. And then we turned up going, hey, you know, it's ANU, it's us. It's about the Traprock. You know, it's another 65k they've gone, okay,

47:10

yeah, so good at that.

47:13

We put in a grant with ANU and the Mulloon Institute around hydrology to do a farm dam landscape rehydration, native bird and native animal, and if you add the native woodland, that's five different biodiversity credits that most farmers will have at least one or two or three of on their farms, and they'll be able to stand alone or stack with the carbon projects. So, we think we're heading in the right direction there, but without the kind of proving that corporates will buy that we're probably now three years away from a functional biodiversity market, instead of six, well, four months away from a functional biodiversity market. Yeah,

48:17

and the Nature Repair Market. How does that

48:23

it's going to be like, maybe the government is fucking around so that they come out with something really good, but pretty much like the Nature Repair Market has been talked about since this government got into power, and they haven't been able to even agree what the methods are, because we know this, because ANU are working on them, and then they certainly haven't got an appetite as a government to start buying the Nature Repair Market, And the

corporates have just indicated with the WEF auction being pulled, they're not in a hurry, you know, like, so I think, well, we will have really good biodiversity assets and offers. You know, we might be ahead of the wave on biodiversity by sort of, you know, if you talk about the pest, the evolution, we might have the science social infrastructure and the technology infrastructure before the economic and political infrastructure caught up with us, but, yeah, we're too late to carbon and too early to biodiversity and hydrology.

49:53

Okay, the last phase I've called instituting, you know, that's when. And the market opens up, and you get really, really busy.

50:05

Yeah, tell us when that happens.

50:12

I'm not sure, but I'm kind of projecting into the future to say, like, how does this thing unfold in phase three? You know, what is, where does it look like it's pointing? You know how we know that

50:25

Rohan has been for calling it instituting, by the way, because he really loves the word, it's institutional scale. So, you know, no farmer on their own can get to institutional scale. So, that you are using the word instituting is great.

50:44

Awesome. I'm glad I can make Rohan happy. That is what I wanted to share with you around you know the how I'm starting to write about the phases and the processes in each phase.

50:45

I don't know why you were upset in your valley of despair, because, you know, like, this is great. You're putting a language around what, I think is an accurate kind of view of what has been happening. And we've definitely moved from phase zero to phase one, and we're part the way moving from phase one to phase two. And I don't know how long phase two lasts for, but I imagine it will blur for a while between phase one, two and three, and then hopefully, if we survive, which, yeah, I think we will. But you know, like, absolutely, yeah, prototyping and instituting phase, and then ultimately, we become an institution. And you could foresee phase four, either is reinvention or decline, right like institutional decline is kind of rhyming historical norm, whether we're individual focus or collectively focused. It could kind of put in a checkered box next to phase three, instituting decline or Renaissance, you know, but, yeah, the instituting forever, will it?

52:48

Yes, yeah, yeah, I just want to find this one document and just share this one piece. Do you think my kids are putting themselves to bed because I can hear footsteps?

53:18

Oh, that's excellent. Do you need to go right now?

Not right now. Okay, can I just want to share this? If you wouldn't mind just having a peek at this, let me just go to share. So, this is how I have described Regen Farmers Mutual.

53:52

We were formally established in 2021; July 2021 we did funding in December of 2021 we built right early 2022 and we opened for members in June of 2022 opening for members. That's right. Okay, yeah, I must add those bits in. Yeah. I

55:27

Okay. Next page. I'm

55:53

Yep, I'm keep going down. If you don't mind,

56:39

Yeah, there's some probably the additional biodiversity credits you might want to mention. And then the other thing is that ultimately, the Landscape Impact Programmes are our slow and deliberate at way of scaling. But what Luke is trying to bring together is the graphical information, geographical information system, the GIS and this large language model, AI computing power that the digital twin doesn't just become a store for verified credentials. It also has like an advisory capacity. So, I can chat with as a farmer, I can chat with my digital twin about the data geographic information system data, about what I should do on my farm to access opportunities or to identify where to locate opportunities. And then it should become a bit of a Bossy Pants and tell the farmer, okay, you need to do this because you're involved in this project, and this is due, and this log is due, and this report is due, and, and maybe that is beyond certification. It's that AI plus what's he called a geographical information system GIS is what it is and a large language model what it is, reasoning engine. He's called it a GIS reasoning engine. And so, there is this credentialing, which is very important. It's at the market intersection, but there's also this personal level that we're trying to give to farmers at a scale that you can't do socially, even with groups, which is something that can look at landscape, your climate, your production and your land management units, and it can tell you, this is, this is a thing you need to do now, right? Like, because, wow, project management. But it can also say, hey, look, there's an opportunity to do an intervention here, because now it will financially

make sense given the other things that you're doing. So that that's a part of the technology platform, I don't think covered in the that description, but otherwise, I'm really happy with that description, and I'd just take out the WEF auction and say, and maybe the other credits as that we will continue to develop the biodiversity credit market. And WEF were trying to be nice. They were saying, oh, we're still doing market development, and we still want to put your project forward, but if they haven't got an auction, then they haven't got a catalytic event. You know, they're just talking to people. Yeah,

1:00:14

awesome. So, on the platform, quickly. One last question, um, what's the development time on that. I mean, what are your what are some deliverable moments that you're planning for the future?

1:00:27

There's this thing on the 13th of June where we should have the ability for what we currently do with the Regen Advisors in each landscape Impact Programme to be self-directed. And there's from about the 13th of June, we think that instead of me bringing on a new member into the FarmOS platform, I'll bring them straight on to the Regen Digital platform. And then, so that's like a month away. That's a big thing. And then the other big thing is the move from facilitated to self-directed landscape impact programmes. We'll have three facilitated ones, at least Microsoft, GBRf and the cotton RDC, but I hope we'll have 10 or 15 self-directed ones at the same time.

1:01:39

Yeah, wow. Do you ever see this going beyond Australia?

1:01:45

Um, funny. You should say that we had a meeting with QZ, who are New Zealand based, and New Zealand's basically the eastern states of Australia, South African. So now look, we put in an application at the advice of some lawyers we know, to the Earthshot, you know, the Prince of Wales, Harry or Lily, that would pay for us to kind of develop international, uh, equivalents of what we're doing. Rohan is going off to talk to the international cooperative Alliance about Regen Farmers Mutual in Malaysia on the 31st of May, and he'll be making the case that, yeah, what we're doing in Australia is sort of unique, because of the pest that we have fundamental idea of working in landscapes, and they have farmer-owned vehicle to kind of navigate those markets that should be exportable. But our members, as in the Jack's of this world and the Jim's of this world and the Stephen Todd's of this world, they have no financial value or from us being distracted by New Zealand or Asia or Europe. So, we have to fully fund anything we did

outside of Australia from external sources, because no value to our Australian members in funding national expansion.

1:03:35

Yeah, interesting....

Chief Technology Officer

I thought it was really interesting. I think it was Jack that said, the importance of branding and having this outwards, like what's our brand going forward and the balance between technology? And like if technology and then I guess the farmer at the farmers at the core of the brand and what the balance is because the two pretty different brand identities, I've never really seen a brand that merges those two successfully? Yes, you either go down one way or the other. Because, you know, historically, farmers aren't really known for having, you know, being a technology leader. Yeah, exactly.

00:49

Right. So, it's going to be really interesting seeing how the value proposition, you know, farmers are central to how that value proposition emerges and becomes a value to the marketplace. So, it's important not to confuse that, you know, because what, even the Regen Farmers Mutual is owned by farmers, what they're offering to the world, and farmers benefit as a result of it, but farmers are driving change, you know, yeah. And so, it's about farmers, leading the change into environmental transformation, and creating the linkage and the accessibility of this kind of regenerative initiative, to supply chains to environmental markets. You know, they're the linkers, they're the, they're the creators of this much larger ecosystem. And, and if you fail to understand, if you fail to identify that right from the start, you're going to get locked into this farmer-centric idea with, it's a farmer inspired idea to which farmers will benefit enormously, but the value of what you're doing is so much bigger than that, you know, it raises an important conversation around brands, around your value proposition around how you start presenting yourself to the world now that you are becoming ecosystem enablers, as opposed to simply RFM. You know, or mutual owned by farmers. So, I can understand how that is cool to its origin. And so almost always be called to, you know, its value system. But I think the, I think the brand positioning has to evolve and take it with it. But position farmers leading an ecosystem revolution.

03:16

Yeah, have you I guess, have you seen in, you know, if it's with reviews for your PhD, or experienced in the space generally? Is there anything similar to what we're doing?

03:30

This is why I was so excited about you the case study, because a lot of this kind of change is often driven at a provincial or state government level, and involves partnerships with a diversity of stakeholders, being corporate, I guess, the two of the big case studies in my paper that kind of identified this as a big opportunity space, where one was about Shanghai as a mega city,

aiming to become a sustainable mega city. And a big aspect of that was mobility and transport. So, there was a big drive this vision by the city, but then in the business ecosystem, there was there were multiple attempts at rideshare. Electric vehicles, mobility as a system, you know, where the ecosystem evolution occurred in waves that first started really with the business ecosystem, you know, which said the rideshare the electric vehicles needed policy and regulatory support, innovation, a lot of vision at a city level for a sustainable city. And so, each wave like the electric, mobility, the business ecosystem mobility, innovation, led to the regulatory innovation, which led to much more integrated mobility. So, the sustainability came about collaboratively. So that was the that was one the other was a Finnish example of mobility-as-a-service. So, it started in government as a vision. And through experimentation with the transport department with key businesses in the transport business, they develop this into reality, but they also at the same time, invested in entrepreneurial startups to fill the gap to deliver to the vision. And so, the big thing also in the Shanghai case, was the question around providing VC, VC-free capital, to startups in the space because you don't want them being driven by VC objectives or ambition, you know, so that, that investment and key entrepreneurial initiatives in the ecosystem development was also really important. So, what's different for me, long story short of what RFM is that it's operating the other way. So, you have an entrepreneurial force engaging farmers communities, Landcare, NRM government's departments. Drawing to that, you know, peers, like Landscape Finance Lab, then Finance Lab then introduces RFM to other life projects in the world, the WEF opportunity. So, this is happening from the ground up. Well, it was a coming together of multiple stakeholder groupings around what I call this higher-order concept. So, I think what RFM needs to understand is like in what they're doing, yes, they've started as an RFM, as a mutual, but what is that high-order concept that they will deliver to at the end of the day. And it's important, I think, to recognize it as an ecosystem story and the importance of key stakeholders in the space. And, and that they are skilled stakeholders, you know, they are highly skilled stakeholders, they have a unique contribution to make. So, to tell a richer story, without losing the power of, you know, your origin story. And maybe also to understand how it sits in a larger context, because there's a lot going on in the context that you're operating in. So, you know, there are other players that are heading aspects or elements of what you're doing. But what makes it different is that you're combining your innovation - it is combinatorial. As I would say, it's like, it's, it's quite so well. There are others spearheading specific aspects to the solution. You're connecting all the pieces of the puzzle?

09:00

Yeah. Yeah. And I think that's a natural part of, you know, if you're starting from farmers, and then going up to those other higher-order stakeholders, it's almost a natural thing that you branch out, you don't just, you know, because if you're coming down from, you know, something higher up, or one of those, you know, let's say, Yeah, high roller, like that term, you have to come in with a very specific offering, and almost, you know, pinpoint, but I guess the beauty of what we're doing is, we can start from this group of farmers naturally grow up and then branch out as we need. And it's two different strategies of building, you know, this, this building that's very successful. If you know what that pinpoint is, and you can generate revenue, it's very attractive for VC funding, because, you know, this is our product offering, this is our projected thing, this little snippet is going to be acquired by someone great, you've got your exit. But for us, you know, that's why VCs are almost off the table because in this early-stage growth we don't know where it's going to grow up into. We have some great offerings that we can bring to the table that really add value, but we're not looking to be acquired, we're not looking for an early exit of birth. You know, there'll be returns for investors, but it will be yield based. Yeah.

0:10

So, it's really important to understand where you're at right now. Because this next stage of positioning is going to be critical. It has to embrace, you know, where you've come from, and your single-minded focus around the farmer, it has to be about that, because that's also what's made you very successful, you know, it's allowed you to make the progress up until now. But the minute you start linking supply chain, and you start linking the World Economic Forum, and you start linking other like, projects around the world, and you start creating dynamic environmental markets, you know, all contributing to that. I think the story has to grow up to. And you don't have to tell the whole story today but maybe does like where the story is now. So, update the story. And the same thing, I think, the challenge here in updating the story is also bringing farmers along, so that they feel they still earn this amazing thing. They still collectively earn this amazing ecosystem that they are engineering from the ground up. Yeah, so that'll be my two cents. But I think it's a, it's a really important time to get that story, right. And maybe, to workshop that a little, you know, because track will be an important voice in that. There because Jack represents the farmers, but she's also long been a, you know, an advocacy voice in the state. So, there's an aspect to that as well, you know, and I think that's going to also add beauty and richness to the story is that it's a story that where people really care. People are doing this because they care, deeply committed to this as a sustainable outcome for people on the planet.

12:20

Yeah, and we've got, I guess, in terms of telling that story, as part of our I spoke about a little bit in the AGM today. But the funding we've set aside, we also have funding aside for an internship programme for years one and two. And initially, we were thinking about bringing in a software engineer or someone computer science, but the problem is with intense out of university, they don't have much practical experience. And so, it ends up being a lot more hand holding than the way you get out, which is fine, you know.

12:58

We've kind of come to this thing that we're actually thinking about bringing on communications or someone that might even necessarily isn't in the farm, or agricultural space, but someone that can tell the story behind the scenes of what's going on and communicate that out. And maybe that way, without, you know, the we've got funding set aside for brand identity and workshopping that, but part of it would be nice that the kind of walls of the technology are broken down, if we have that communications person that is, you know, working with both the agricultural sector and the farmers that that were governed by, but then also, you know, pulling back the curtains on what we're working on, in line with all those open sources.

13:50

And you'd have to write the story for different groups, like, you'd have to write the story for general consumption, you know, like, then you'd have to write the story from it's a beautiful, innovate collective innovation story. And it's also a beautiful story about her entrepreneurs, engage, drive, large scale sustainable innovation from the ground up, you know, and then it's also a story about the capability or both, and what that enables not only for farmers, but for the marketplace and industry and governments in particular because this is you know, governments have been talking about this for 20 years, and why they like what you're doing is because you showing them how you know so there's this important power lead that you're taking, because of the way you're going about it, which is highly participatory and engaging. And you know, that have particular skills, and you add richness to that skill set? So, I think there are a number of stories too, right there. And then there's a there's an environmental market story too. Right? You know? Yeah, there's an industry story too, right. And the stories are nationally focused, and then there must be some stories that occur with the focus. Yeah. So, there's a lot, there's a lot of ways to slice where you're at right now. And, like immediate futures, and, and what he has done very successfully is that, you know, he's been a voice all the time where at what's going on.

16:30

Just in the general meet, you know, not, because I think a lot of people might get bugged out, you know, you can speak at a conference, and that's, that's good for a particular circle of people. But expanding out to the general, you know, just general engagement, I think that's a huge, huge avenue. And it's something that, at the moment, it's always just been a bandwidth issue, right?

16:55

Yes of course, it always is, you know, always is, and there will be that limitation on what you can do. So, it's also about kind of mapping out the phases and the release stages and, and working in, you know, the physical capability and limitations of your tiny team.

17:20

I feel like when it comes to communications and engagement, because it's a lot longer term investment, or less, you know, you don't see return straightaway, it's always about something a few months down the line, or it's a compounding investment. It's always tough to say, oh, we need to put in three hours a week and doing engagement and writing, when we've got an urgent deadline that's coming up.

19:41

And yeah, it's on my priority list that as soon as we get a bit of bad bit of breathing room, we're going to we're going to really go for it and have the three of us because I think it takes out of the three of us explaining all the different aspects of it. You know Wardy's obviously at the heart of running these programmes, but you know, Rohan can talk to the finance, I can talk about the technology that's enabling it. And I feel like that's a great like one off video. But one of the things we've got to think about is what is that short form ongoing content that we can be churning out once a week? That doesn't mean in the beginning, it's going to be a bit of investment, putting it together? But what is it that we can be putting out? And engaging people with? And hour and 40 minutes?

20:32

Yeah, no. So, what I'm saying about if you do this, if you do enough on-camera interviewing, right, then you can harvest that stuff for a long time. And you know, so you can do two, three monitors, every week, for the next three months from what you harvest, as far as insights from that, that content. And what I've also done is looked for concepts that are emerging in that space and maybe animating them so separate animations around emerging concepts. Really saying, well, this is what's starting to emerge, and this is what we're investigating now. So, in that way, you also start acting as a magnet to draw people who are keenly interested in what you're doing and want to be part of it and can bring a skill set to the solution. You wanted to

act like that, you know, so those early, those magnets that Rohan and what he created, you need to continue to create those magnets as your circles, you know, on the edge of your circle, so that you can pull in continue to pull and enrich magnanimous, highly skilled partners. Yeah, absolutely.

21:55

And I think part of it is like you're saying if it even if it's not animation, or if it's but having a high-quality video and audio output? That's kind of a cornerstone, I think if you know, if we want to do this YouTube channel properly and put out Calm down, while I'm doing webcam videos, but no, it's hard to listen to one of them. Yeah, I think one of the

22:17

There's a place of inviting people into your process. That's what those videos have done really, really well. But they are laborious, and you have to have a lot of time to invest in an earlier researcher like me would sit through that to understand what you're doing. But, yeah, but there is no a place for curated content that has a strategic and operational purpose. And you were saying, sorry, I interrupted you.

22:52

No, it's a, I think you're exactly right. With that, and the curated what, you know, one thing that, that I've scoped out, which is going to help drive investment into the landscape impact programmes is if we can do videos, and partly it might be animated, but it's going to incorporate some of the geospatial data that we've got. But if we can do almost before and after of catchments, and then a six month check in those catchments, short doesn't have to be long, but we're animating what the interventions are what you know and then using satellite imagery to show those changes over time, it's satisfying for people to look at. So, we should get a lot of engagement from there just from general audience building up the brand. And, but then also from philanthropic investors, if they're looking at a catchment, we can showcase to the hey, we've just posted this catchment, you know, ready to go. There's a company in the US called land.ir, I want to say, and their whole thing, their real estate company, and the only do is sell land, right and hire random places out the states. And all they did, and they're so popular is that they just have Google Earth thing, flyover, a little beam of light, show up, highlight the property. They've got 10s of 1 000s of followers. It's something like that, where we can go in highlight the property. We're doing interventions now. It's too much to do with a small team that we've got, like, this has to be fun, you know, we'll pay someone to manage that. Yeah. Yeah, I think groundwork is laid and getting some, some interns maybe in the beginning, but having permanent communications in house I think is just,

24:35

I think, yeah, I think it's a good call right now. You know, I think it's, it's necessary right now. I mean, what you're talking about, not to also allows a practical understanding of the real difference you make on the ground, you know, and I think that's right again, to engage, not just, you know, like, if I think about Rachel's from that documentary

25:02

I've heard it. Yeah. All the compensation, you know, so I subscribe. I follow her on Instagram. And then it's another this another week, another Instagram account also Rhonda regenerative farming. But the conversation that that generate and you know, like the shorter interviews I think Mike McCusker and Helen were interviewed as well. I saw that Yeah, yeah. So, you know, those short little snippets again, I feel like he's reaching. I didn't even look to see if you have an Instagram account.

25:40

I wouldn't be surprised. I don't I don't I don't honestly, I don't think I'm sure

25:44

you do. I think you have a Facebook account. That's right. Not that, you know, Facebook, anything, we shot the boss, but I'll have a look. But, yeah, it's going to be a big part of that business going forward. It's just we want to allocate and, you know, because in the end, you've got to be a viable company first, but it's Yeah. You know,

26:17

it's part of the game. Yeah. I mean, it's basically upping the game, I'm once you've already been doing so what you've been doing is capturing everything and sharing it. But now, the upping of the game is about crafting what you put out now in terms of messaging around value proposition positioning, next, critical strategic stages, what are the opportunity spaces that are opening up? So, Wardy has been doing that up until now, but now it really needs to be two, three minutes. Maximum eight minutes on a podcast, you know, so podcast series would be really would be really interesting.

27:12

It's, I don't know if I've seen the return. Like, I've seen a few companies that have come out with podcasts. And I just know, it takes it's a lot of work. And if I'm putting that much work into it, I think we'd want to do something that's a little bit more targeted, that at least supports the landscape impact programmes, or maybe if there's conversations in the field, and we can take snippets from that. And

27:38

yeah, that's what I'm saying. I'm not saying good. And podcasts. It's not a rich, it's not a Rich Roll, you know, it's not a, it's not one of the Yeah. But you know, the big thing is do, a lot of the podcasts are centred around having short conversations with interesting people or critical people around the subject matter that is, you know, critical. Or as I say, you can harvest from if you're going to do X number of on camera interviews, you can harvest a whole bunch of a whole series. I mean, I did, I, on one, research, I got the opportunity to travel to seven countries and interview about 70 people about the future for a reinsurance company. So, but it was a broad range of people. And out of that I strung together 10 podcasts each about 10 minutes long, they were a little bit too long, I would make them shorter now. But, you know, I made a phone, I did podcast, you know, we harvested a lot of other conceptual stuff out of that, which we turned into other content. So, it can, it can be result efficient, because all it requires is for me to stitch things together. You know, so you guys loaded time that it takes is for you to have your fair. And then the rest with the edits a producer, you know, to pull that all together. But I mean, there may be other there may be other ideas. Maybe someone like Jack has been, you know, locally in I mean, we're in the same business so and Jack has all the local knowledge, and she has credibility in the marketplace.

29:57

Yeah, it's going to be you know, a hectic next few months. And then after that, it's still going to be pretty intense, but it'll give us a little bit of breathing room that we can start hiring in and taking a little bit of the load off of us. And it also just given freeing up our bandwidth to do more of these things, right?

30:26

Okay, so knowing your time is limited. And here you are giving me limited results. I'm happy to join a conversation if I can add value, so yeah, just shout it. You know,

31:44

Good. So you want to show me the system? Yeah, let's go through, it's in bits and pieces everywhere. So, we're going to have to go jump around a bit. But let's start with let's just make sure it's up and running.

31:59

Okay. So your accent - it doesn't sound Australian.

32:13

That's maybe the seven years in England,

32:17

London. Yeah.

32:22

Right. So, this was the main homepage that farmers would land on. The idea is that you have your land, and it's actually it's about it a bunch of new layers. And so, you would have your land, it would zoom in to your property boundary. And then after that, it would have all of your data kind of lined up on the right-hand panel here.

32:53

In this section, that's existing data or data that you've uploaded. This is data that we've pulled from different sources on the web. I've got a whole I can take you through the layers. Okay, but I'll show you kind of what a couple of them. Yeah. But it's stuff like vegetation, pre-European vegetation, contour maps, elevation maps. Yeah, so there's a bunch of information we pull in. And then down below, in this section here, it wasn't, it was going to be a toolkit where we have models that we could run, or it might be other data that they might want to purchase, or add, such as NDB is like high resolution, vegetation indices, to tell them kind of what their cover is looking like over time. And that's weekly data. So, it's every 10 days, it's a bit of a higher temporal resolution. But I think now, it's going to transition to that the certificate manager is going to be placed here, and this will just be a single web page. Okay, I really liked this idea of having instead of a lot of the farmer apps now, and I don't have follow this app, but you have to go into a bunch of different menus and find stuff and jump around. And I like having not a cluttered dashboard like a really navigate, but I think one page is always easier, so you're not having to jump out of everything. So, I think these certificate management, kind of these, like projects essentially, down below here, like tiles. Exactly, right. And the idea is here; these are all the projects that you've been deemed eligible for or potentially eligible. So, you might have a carbon traceability project, and you can see this one's kind of two, two out of 10 but your eligibility that you can confirm for Potsdam, Box gum grassy woodlands and you can imagine here, we're talking next week to one of the banks. And so, we'll be looking at Green loans. And so, there'll be able to navigate all that and quickly answer a couple questions gather if they're eligible. And then if they are a start on this kind of projects, project, the idea is here is that they have they go through a set of steps, which ask them yeah, there's nothing, nothing here yet. This is actually, it's built in; I'm going to show you what this looks like. But they go through the add some information. And then eventually, once all that's done, and specifically for the carbon traceability, they might have all their livestock records here, zoomed out, actually, it might look a bit strange. They have all their livestock records, their certificates that they can access, and that this is specifically just for this carbon trace. Right? Right will be a custom one for each of these projects, right?

36:03

This is actually valuable break through stuff

36:12

All the exciting things getting in people's hands, right. So yeah, we'll know how valuable it is, hopefully soon. Now, I'm going to take you through the eligibility checker. And so, this is still very bare bones, we haven't added any branding or anything to it. So, it's this isn't what it's going to look like, eventually, but the idea is get started. And you're going to go through a few steps, adding some data in. And then it's basically the pre check all of those certificates. Really, what the purpose is for this is to create a bunch of call to actions so that they sign up and register that digital twin. So, this whole tool is to improve customer acquisition and start reaching farmers beyond the landscape impact programmes, right, right there after they've uploaded a file. Let me see, I should I find loaded somewhere.

37:09

Can I just interrupt you while you're looking for this. So, one of my conversations with Rohan was product segmentation or specifications, you have a landscape, the landscape impact programmes that aim at particular markets where you can aggregate farmers and ending and get that off the ground. But there is another layer of very offering or product offering that is around this, you know, this software here that attracts diverse farmers. But they're curious, they want to know, and then also saying to run that one could build these basic educational little video videos or knowledge packs, or you know that if people are interested, they can start exploring what else is on offer to kind of upgrade them to next level from a member, you know, yeah. There was offering, and who knows what comes after landscape impact programmes. But you know, we'll see. But there is like a package, almost, of educational and other onboarding materials that can upgrade, you know, where you can use these farmers to start cat herding, I think is what woody calls it, the farmers to then start upgrading to potential landscape impact programmes. Anyway, I just thought like, it's that segmentation of offering two different levels of farmer interest and former engagement.

39:03

Yeah, you're exactly right. With, you know, the point of these is add value to individual farmers, but our bread and butter and our focus is landscape impact programmes. So, I almost provide seeds, or, you know, we imagine that I'm going to be around the country that we've planted. And, you know, if we can gather a few people in a region, and we can track that, then that's a reason for us to target that area for landscape Impact Programme. So yes, yeah. So yeah, basically, once you've uploaded your boundaries, you can continue and then from here, there'll

be an option to skip and there's going to be a bunch more options to, you know, to track how far along you are and this is really just a first pass at getting the feeling that people can and this is using this is basically what Luminati has in that tool, except we're using the AIA calculator instead. And so, once this goes through and starts working, we won't need to use Luminati anymore.

40:07

Yeah. Sorry. You bet. Yes. I was quite curious about that. Because that was mentioned in the AGM. What? Tell me a little bit about Luminati and AI

40:20

it's the AI - it's the true innovation. So, I think something like that. So, they're a company they were developed a software so that farmers can, really, anyone can go in, put in information about the emissions on the farm, how many livestock you have yada, yada, yada. And then after that, you can get an estimation for your scope, one, two, and three emissions, and also impact fertiliser and, and then they give you it's a really neat tool and Illuminati. And they can you can, like, adjust what your potential strategies might be. And it'll show you what your impact on you scope three emissions would be. So, it's a really great tool. It's really only for the beef sector or livestock sector. Whereas this new calculator is kind of it's across all grains, sheep, beef. And so, there's a lot more involved. There's also a lot more data. Yeah. Right. But it's more in line with the industry standard. So yeah,

41:37

thank you,

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what we're collecting here, it's not all the information that you need to do the proper calculation. I've kind of cut out pieces, because if a farmer was to sit here and enter all the data that they need, it's going to be maybe a 30-minute 20-minute capture. So, when we're doing this eligibility checker, it's really, what's the minimum amount of information that you need to provide. And I'm already looking at seeing if I can, it's bait, it's kind of four steps now. And I'm looking at seeing if we can cut down a little bit. Anyway, so the idea is here, you put in kind of the breakdown of your livestock if you know if it's like 30 bulls, 20 steers, 100 cows, and then going through this as your fertiliser inputs. So, nitrogen and phosphate fuel, like choose fuel electricity, your feed, herbicides, and limestone. And then finally, just the nonproductive areas now. Now, as well, so let's say you've got this area - it's vegetation, or it's nonproductive. So, you can say what type of soil it is, where you are in the rainfall region, we're now getting this automatically. So, we don't actually have to ask this question. The

dominant tree species, spotted gum, let's say and then the age of the trees. And when you save that, you've then got that registered as a nonproductive area. And then the idea is you see the results, and you have this results page, which tell you your kind of opportunities and how in line and how much they could potentially yield this, this metric is made up. Now, we're not sure exactly what the metric is, if it's a 90% match with your land, what that means. But we're going to come up with a calculation. Here, as you know, you click on this, and there'll be some more information that will take you and this is where all the call to actions are where it's creating your account from this and viewing your digital twin and there'll be a mapping, you can almost imagine it actually as similar to the other page that we had. Data Management. Yeah, there'll be parts that are kind of blurred out. So, in your data, there might only be four data layers that are showing that says, you know, login and unlock create an account to see more. And this is where all of your certificates or the potential certificates would go. And you can do stuff on the map. So that's kind of where we're going. And then so when they choose to sign up, it's very seamless. They go create an account and then back right at the same page. And so, the whole app is really not - you don't have to get used to different screens or different pages.

44:38

I were, if I were a farmer, I'd be doing this like yesterday.

44:45

Thank you. And then in terms of, you know, I don't know if this is kind of the other bit of technology that it's really only come up in the past week and a half really. What do you the reports that are generated it. Let me bring up, I don't have an example. But this is kind of what we're aiming for the reports. The reports that are going to be generated, they are usually just a bunch of data that eventually will have the platform. But for now, we're still with good old PDF reports. Yeah, yeah. And the idea is, you know, you have your boundaries, some climate statistics of both the monthly rainfall and then min and max temperature, we've also got, what's pretty neat is how, how all of those metrics are going to change in line with four and a half degrees warming, and estimated change there. And then this stage, we can introduce about, you know, the importance of mitigating interventions. And then it starts, the rest of the report goes, this is kind of this is what I designed last week, where we start with the catchment level, looking at kind of catchment data, and then we just narrow it down into the fall. So, by the time you've gotten to your farm data, you really understand what's going on in the catchment, whether it's livestock routes, or vegetation, so I can show you some of that, for instance, we're going to jump to a bit of code now. Let me find, yeah, so this is a really neat map, let me zoom out. This

is a catchment elevation model. And so yeah, this is our local government area, you've got your farm marked in there. And you can kind of see that you're on kind of like mid midway and in the catchment or the area. And this is the hill shade built in. But one thing is this isn't, this is just the local government areas, the boundaries are based on government authority, authority boundaries, not the watershed, we've got watershed as well. But this is this is almost a bit of an arbitrary line, it's much more impressive looking at the, you know, the proper boundaries. What else do we have, we just have, yeah, where your property is, but you know, in your local government area. And these are still work in progress. But you can kind of have a sense, this is your property, and we're looking at, you know, the surrounding protected areas. So, we've got a protected area there. These are travelling stock routes. So, I'm not exactly sure what they are what he said they're kind of important. And so, the idea is you have these stock routes around the map, and they've got different conservation values. I think it's, I have no idea actually, I think it's like, you're transporting livestock, and you need them to have a point where you stop. You're right. It's like Crown land. So, you're allowed to keep your livestock on there for a day or something like that. And then sir, it's exactly ser No, but we've got them in anyway. And there's a bunch of other layers like we're looking at the National vegetative, so this is them on your property, looking at, you know, your land use and you know, you can see eucalyptus, open forests with the grassy understories. That's typical box gum grassy woodlands, then. And so that's important for us to identify, okay, there might be a potential opportunity area here, and the one I'm working on now is the pre-European extent and then comparing the two seeing what's changed.

48:45

Yes. Yeah. Yeah. And what was incredible from the Regen AGM was that these reports now will be produced automatically for the Landscape Impact Programmes. That's, like, looking amazing.

49:09

And it really came up, because two weeks ago, what he was like, I've got, I've got like, 60 of these things to do. And I said, what data are you collecting? What are you doing? And then he showed me and I was like, look, we've already got half the data loaded into the database. It shouldn't be too much work. And Famous last words, shouldn't be putting this all together. And it's been you know, a few sleep-deprived nights, but we're almost there. We've got to do at 2pm tomorrow.

49:54

yeah, it looks amazing. Looks amazing.

50:00

Imagine, you know, we're going to be able to generate and it's never whenever we're doing this automatic flow, it's never going to be perfect, right? Like you have, the text might be off. But the idea is you generate enough of them, like variations for a single report, and then one of them will be fine. Or you might have to tweak something here or there.

50:20

Yeah, but well done. It was so exciting to watch the Regen Digital AGM and to see, you know, how you've like really catapulted them into a new place. Yeah.

50:37

Exciting. Excited to see where we go, I think. Yeah,

50:39

So, I'm going to let you go. Because I'm sure you have must have some dinner and fill yourself up for deep into the night. Video deadline to be here tomorrow. But yeah, Luke, thanks so much. And that it's just super exciting to see, you know, the Leapfrog progress that you're making. Amazing.

Co-founders

Okay, so Emmanuel has a question he mailed on Friday. He has a mining client in Morocco, right? And he wants to know if you work with the mining industry at all, either directly or on projects as clients or credits.

00:27

Yes, we do, is the short answer. So, they need to buy carbon and biodiversity kind of and farmers create that, but we haven't done a deal yet with any mining company, but they're on our radar. Okay, so I just Morocco probably is a bit outside of our remit, usually that they're in Australia, like bhp or wood or something like that.

01:02

Okay, I'll pass that information on. So, tell me what's up Regen Digital, I had fabulous conversations with Luke. What a human isn't he?

01:14

He's a fantastic thinker, and I'm very excited to have him on board he's been working away. It sort of ties into that AFI supply chain certification project, but essentially, he's got a way now where farmers can get their carbon emissions, verify the sources of data that feed into that, and certify their emissions balance. And so, we're very close to moving out of the prototype, which was phase one of prototyping, and into piloting it. So, we're showing it off. I think next week is its first public unveiling, and once that it's sort of public, it becomes a bit of a beacon product in that we as a mutual are certifying the carbon emissions balance for farms and for products, and probably the first in market to do it using a decentralised process like a protocol that has got UN backing around thing called article 49 about Transparency Protocol. So, we're really at the leading edge internationally around the UN. We're at the leading edge of the beef supply chain. And technically, we're one of four projects the government funded using this protocol. But we are the first project to look at carbon emissions and biodiversity? So, the first, really, there was another one that looked at deforestation, which is obviously an environmental asset, but the ones that probably have the biggest reporting significance for everybody is around deforestation. You can kind of see from space, carbon emissions and biodiversity are a bit closer to the ground, and you need farmer input and stuff.

03:35

Yeah, wow. So that's, that's a big step forward.

03:38

Yeah, imminent. We haven't made it, but I've seen, seen him walking it through. What that'll mean is that, as an onboarding pathway for members, you know, they can come in and use this

software to identify and then if they decide, oh well, I need to do a project, they can then step up to get a digital twin at a much higher-level cost. So, it's a better onboarding pathway, hopefully a better customer, user, a member user experience, and it's an upgrade in terms of the technology that's under underlying everything as well. Yeah.

04:21

So that should help a lot. I mean, you're talking about farmer onboarding, but that should help a lot in terms of your influence and impact amongst farmers in general. With having a tool like that in Australia can get some PR around it, yeah. And then it must have also acted as an important piece of input to your cohort landscape impact programmes. I've been watching your YouTube videos with your cohort members, and that looks like that's really taking shape as well.

04:58

Yeah, they're mainly there's four of them, and that's the reason for the Regen Roadshow is to intersect with all of their investor sessions in the landscape Impact Programme. I do have some things which might be useful resources for you. Just let me grab them. So, is it all right? Just to put it in the chat, sure. Now, this is the site that I did up over the Christmas break. It's like a mini site covering off what's in the landscape programme, more of like facilitator level kind of view of the landscape Impact Programme. So, we're hoping still to get like 20 landscape impact programmes funded by WWF, starting in July this year and finishing in, you know, November. And if we do that, I need to replicate my capacity to run four or five in a cohort with at least another person. And so, this site is going to provide a sort of framework for the working teams, but also a framework for any future facilitators to kind of understand, how do they run a landscape Impact Programme? And I guess it's a path to systemising. You know, what we do that's helping to scale the landscape Impact Programme?

06:51

So maybe, while we're talking about that, I wanted to explore these landscape impact programmes. Now remember that in the last presentation, I spoke about these collaborative intersections where multiple parties come together to work out how this gets done. You know, so I was wondering if maybe this is what's happening. Is that that process mapping, or template making, you call it templatising, I think, and resource and resource inputs mapping. So like, when you do this, what kind of resources do you need, both human and data and other skill set mapping. Like, what are the skill sets required in a process like this, partnerships and roles, creative output specification and system linkages, like where this now links into other pieces

that you're building, and how they start now becoming interrelated or interdependent? Is that what you're seeing happening in the in that space, or not really?

08:13

I guess we just think of it as sort of white boarding and co-design, and we probably wouldn't call it all mapping and then things like that. But that is what's happening, you know, get a bunch of us, and we kind of distil from all of the various ideas, principles or actions or, you know, so it's very much what you're saying? Yeah,

08:41

So that's what's going on, cool, and I'd imagine that. Do you want to tell me more about what happened, and kind of insights or things that surprised you, or things that you expected happened?

09:02

In the landscape Impact Programme, like, while I was away, there was a bit of cat herding that needed to be done. So, the farmers in one of the four regions had kind of got themselves worked up, and we had quite a break from second week of December through to the end of January. But they were so anxious as to working out what this is all about that they actually met, you know, separately in the second week of January as a get together, and I think a lot of the lessons learned encouraged me to build that website so the working team have enough information about what the process of the next six weeks looked like. Some maybe had missed the concepts of what we were doing in the first six weeks. And so, I think we kind of fucked up there, and we got early warning, you know, and no long-term damage, but a bit of a tap on the shoulder that we needed to be clear about what expectations were in the next six-week horizon and the next six-week horizon and helping people through that.

10:32

And Regen Tours are interesting, because this feels like this is where your transaction making process needs market making process, is that correct?

10:42

Yeah, it is. Can I tell you, it's a bit anxious in creating because we priced it up, and we have got, you know, a marketable product, but as of now, we haven't sold a ticket to anybody yet. So, I should have de-risked it, like getting a government or a corporate sponsor to get 10 tickets at a minimum so that we would, but I fucked up. I was in such a hurry to get it to happen that I've forgotten to de-risk it, and so now we've got to work hard to actually put bums on seats.

11:27

Yes, yeah. And there's no reach out to government for funding for this. There's no possibility of that. I think government might be attendees. Yeah.

11:42

Okay. Well, good luck with that.

11:46

Thank you. The AFI, we kind of just talked about that with the Regen Digital, ANU, WWF, biodiversity, credits, still exciting. We've had a few false starts now, potentially a better path come up, and I've got a meeting tomorrow with the Traprock farmers to give them an update, but essentially, the government had engaged ANU to create a methodology for the Nature Repair Market and Box Gum Grassy Woodlands was their case study, and in their infinite fucking wisdom as scientists, they determined that the only way to manage it is by removing grazing, which removes it from its applicability for all of the farmers and all the private land which holds this biodiversity community, 77% of the remaining 4% is on private land. So, if you don't allow them to graze, they won't take up that method. So, we kind of went, oh, that's a bit shit. And then the government went, but hang on, we created a thing called the Australian Farm Biodiversity Certificate. And the Australian Farm Biodiversity Certificate could provide a method that enables grazing and like a certified level of government endorsement, but not up to the level that it's a Nature Repair Market project. It's different but a biodiversity certificate. So, for internationals, they probably don't care. And as of yet, there's no domestic market, but it should be enough to enable us to go to the WEF biodiversity credit auction and be able to say we've got an Australian certificate for biodiversity focused on the box gum. So, it's good, but it's had a stop-start.

14:06

So what is the University working on? Are they still moving forward on methodology?

14:14

Yeah, there's a price to get our method finished by ANU under the biodiversity certificate. And we haven't got a fixed price on that, but I reckon it'll be 100k and then we need to find out where's that 100k coming from. But at least there's a pathway there. So, the peatland project Rowan's probably best to update you on that, because they're his contacts, but my understanding is that they're making headway, but I don't know what that means.

15:02

I'll tell I'll tell you why I asked you that. So like, in terms of looking at RFM and how my story is coming together, is that, you know, I think the phase the beginning for you in that Fauci time was this co-design and legitimising. And I think you're now in this niche ecosystem solution,

orchestrator. So, you like orchestrating all of these pieces, all of these elements of the overall solution. You're kind of building with lots of collaborative groups. Yeah. So, at this stage, you're kind of orchestrating elements of a solution, and I'm sure that you know that will lead to RFM as an innovation ecosystem builder. So once these pieces start linking together, and you start configuring the ecosystem you swap from ecosystem orchestration to building. So that's how I'm looking at it

16:16

At the moment, I think that's, that's reasonable, I really do.

So, it kind of takes, you know, the first presentation I did to you was this, you know, this context piece, this interaction piece, this participatory mechanism and collaborative intersections and Trading in Regen which was a reconfiguring event. It was, it was major in that it, not only, you know, took you somewhere in the minds of people, but it also changed the minds of people, or upgraded or updated the minds of people. And so, yeah, you know, I've kind of started looking at this, and I want to explore this a little bit more. So, I think that I want to, I want to speak to people who've had experience of your project to kind of really flash this out a little bit more, because I think there's a lot to be understood in this process. And then, you know, I think this will see later down the line I called this before ecosystem synchrony, but I think it's ecosystem configuration. I think the configuration word is the AVP in the middle, ecosystem value proposition, right, right, right, right, yeah, yeah. So, so I'm still working within that framework, and I'm still feeling like this diagram that I created for myself represents a set of artefacts or ideas that are inspiring what you're creating, you know? So, it feels like to me, underlying this all these sorts of projects. You know, you are kind of behind the scenes. You can see this, what this ecosystem is, and

18:13

You're right to highlight Trading in Regen and the Regen Tour as connective kind of things. We when we were coming up with this idea of the Regen Roadshow, whatever we recognized immediately that Trading in Regen is our opportunity to kind of get together and do the provocateur/responder and be in person, maybe in Sydney, you know, the city, but the Trading in Regen offers a counterpoint of getting out into the field and going experiencing these landscapes. Then we were like, oh, and we've got the AGM, which is a third kind of annual, cultural thing to put in, yeah, side of stuff. So maybe we'll end up with three, but possibly even four, recurring, annual events that have, you know, provide functions, yeah,

19:16

Yes. I feel like they, you know, like that Trading in Regen conference was said was like a field. It's a concept called a field reconfiguring event, you know, so it's like, how you really start shifting this interaction field that I'm talking about and creating space, or what you're doing to emerge with greater support and understanding. Yeah, so, so why this is interesting for me is that I feel like if I take an entrepreneurial lens to this is I want to go to the literature quickly. If I take an entrepreneur. If I look at this from an entrepreneurial lens, then there's a there's a piece in the literature I really like that is around entrepreneurship that speaks to the role of artefact in entrepreneurship design, so how it acts as a means of from a mental idea or a picture in your head, and act as a means to get to where you want, what you want to manifest in the long term? So that's why I go back to this, because I think that this plays an important role, and maybe we can have a conversation about the role of that at another time, you know, to unpack how that, how that operates as a reference for you as lead mutual entrepreneurs, you know, inform next steps, how you design. So, what's really, what's what was big breakthrough for me was this piece of literature which looks at multi-level perspectives of socio-technical systems and transitions, like, how do how do big transitions happen over time? And they talk about these technological niches, is where, where you're sitting, where a lot of niche players are pushing some radical ideas, new ways of thinking, some new ways of doing things, that, and then multiple players who do that and that still is quite diverse and dispersed, but as more of that starts coming together and creating a new set of more stabilized rules and solutions, they start impacting the regime, the socio-technical regime so the main players and as a dominant design starts emerging here, it starts influencing the regime, either infiltrating it or replacing it, um. But what is also at play is the exogenous landscape so and I'll, I'll show you now how I see all of this in a RFM context. But this is this for me, was wonderful to see, because what struck me about the first round of entities was how there was such a high degree of confluence between landscape regime and niches. It like it was this framework that I thought, ah, now I can actually bring all of these elements together, because they're so dynamically at work in the Australian context. You know, there's so much happening at a policy, regulatory, climate change level. Then the, you know, existing regimes and multiple regimes are struggling with in terms of how to integrate, incorporate, innovate change and then there, there's a lot happening in the entrepreneurial space around optimising the new opportunities that are emerging. So, this became key, the entrepreneurial focus became key. The new emerging fields became key, and how that all starts, informing how an innovation ecosystem arises. So, it felt like these were my stepping-stones. So, if I look at this particular module, and tell the story

from here. Then you know this is what I've identified, and maybe you just want to have a look at it.

24:12

Yep, yep, that's pretty, pretty accurate, yes. I could see it also in that traceability project that we're doing as they're trying to get a protocol. So, you know, here we are with a pilot right down the bottom left of your graphic, and trying to mainstream it with the UN and distributed, which is a socio technological revolution. And while they're in the process of creating protocols. There are all these other technologies, things like AI and robotics and IoT and, you know, unlimited connectivity through Elon's Starlink. So. Yeah, they're all I can see this working in other areas. So, I think academically, I understand the principle and on the right-hand side, I think those are the drivers that we're experiencing. Maybe we don't look at Green Collar and Ecomarkets and Terrain as much as you guys, as you might and think of ourselves in the same space, but there's a lot happening in that, all across agtech and climate tech and whatever we are.

25:41

So why I'm interested in looking at those other players and what the literature refers to as intermediary actors, so the actors that work across all of those spaces is that what those actors then tend to do is to see the connections between what's going on across all the niche activity and what and then start building connections that allow for a more consolidated emergence of something that resembles a dominant design, emerging kind of quicker or, yeah, emerging quicker and more robustly. But why I'm interested in the Peatlands Project, because attached to the multi-level perspective is this concept of strategic niche management, and it talks about the fact that you know there are niche activities or niche businesses emerging around the world, but when you start, when one niche project at a local level starts connecting with other niche projects, similar niche projects at a global level, what happens is that there's a chance for a rapid stabilization of rules and standards and methods that allow this to mainstream very, very quickly. Yeah, so, so the same thing would apply to like looking at what's happening across local niches, to look at what some of the global niches are occurring at the same time, and then how does that contribute to kind of rapid consolidation and emergence of a new field?

27:37

Again, I buy that.

27:41

So, when I first spoke about the interaction field in my presentation, I didn't see this, but now that if I put this at the centre of that interaction field, I see how what you do is affecting, or is

really influencing all three, three of those levels. And so, I'm, you know, wearing that lens, really in everything that you do to see how that you know, how those impacts where you are and what you do, but also what you do impacts the interplay between these two. So, it's like to describe what this interaction field is all about, you know, and how you can strategically and optimally shape, influence it, transform it, contribute to it. And so, I've just, you know, I've just started working on this. You don't really need to bend your brain on this. But, you know, like, processes, mechanisms, activities, effects, and then these field configuring events, you know, like, how do they start playing in the States,

So, building on that is maybe the next round of interviews. You know, I'm wondering if people like Andrew McIntosh can add to this multi-level, global perspective, in an emerging business field. You know, given his role in kind of the larger industry and this emerging space over time,
29:55

I don't think he's terribly useful. Unfortunately, He's so hard to get a hold of, and he's very legalistic, and matter of fact, I think he if we did get his time, which would be hard enough, he then wouldn't appreciate what you're trying to do, because it's not legally. There is a lady at ANU who, if you haven't spoken to Michelle Young, I think it's probably worthwhile speaking to her. I was involved in the day after the Trading in Regen event.

30:38

Yes, yes, so we met each other there.

30:42

She's kind of Andrew's boss. She runs ANU Smart Farms, which we're working with in Victorian landscapes. She's working with us, with WWF, on the next 20 landscapes. She's got an action research project on how the Landscape Impact Programme works. And, you know, I just think she's close. She found it amusing that the Nature Repair Market method never considered grazing. And you know, what are they doing? So, she's got a very good high-level view now and clean a lot of the landscape. And yeah, she's, she's not green in the in the sense of new and wet behind the ears. She would be useful instead of Andrew

31:41

I think I have her contact details. We connected at that workshop, so that's great. I'll definitely speak to her. And then I think, yeah, we've spoken about the progress on these things. But I think if you can just, you know, do I go back to people like Kim Wilson, for example? Is she a good person to get an inside track on what these landscape impact projects how different they were from the Brock experience? And you know what's happening now in this experience, she'd be good. She would be good. And we've got another girl recently joined us, like last

week, and it's been full on since. She's actually charged with kind of getting the Regen Roadshow to happen. But her name is Amanda Phillips, and she's been thrown in the deep end to try and understand, what are our landscape impact programmes? What is the Trading in Regen event? She's this week, had exposure to all four groups, and she's relatively new into our world. So, if you got her soon, you'd get a like before shot, and you could get her in three months' time and get an after and also, I think Kim, yeah, as a participant, would provide some good feedback, because she's done trap rock. She's doing Upper Clarence. It was her group, actually, that had the rabbit management. And part of that was, oh, cat herding. Part of that, okay, yeah, part of that, I think, is her personality rubbing up against one of the farmers in the pilot 10. And so, there's been a bit of a pissing match and a marking of territory. And interesting to hear that come through with Kim.

34:26

So the NRMS, Kate Andrews, yes, there's probably a girl called Melissa Henry, who's Local Land Services in the southern table lands, and she's been really hands on with the programme, and she's a state government employee, and she can tell you what she's experiencing from that she'd be really good. Yeah, the Landcare, Victoria, guys, if you haven't already met Anthony and I. Um, Claire, the new CEO of Landcare, Victoria, yeah, again, both at that day after Trading in Regen event, Anthony was there. Was he? I think Anthony was right next to me. And then, yeah, Claire might not have been, but no, she wasn't there. Both of them are good, yeah, and well worth connecting with market reps for the investors on Regen Tour. Give me a minute. Give me a couple of days.

35:39

How's Christophe doing by the way?

35:43

Christophe health is great, and he's so amazing. I think he's got one or two remaining, but shrinking tumours, so 11 or 10, or some amazing number of tumours. And is, and they didn't think he'd last six months, and he's Yeah, he's winning, yeah. So, the interim member council has actually moved to a formal member council, and we've expanded the boards for Regen Farmers Mutual and Regen Digital. So, Christophe and Stephen Todd have come into Regen Digital as the directors, and Jack and Liz have come into Regen Farmers Mutual as directors and we had our first member council meeting nearly two weeks ago where it was just the nine that had come most had come across from the interim member council, one new one from that nine. We can choose four for the director roles, and that's what we did.

36:58

Okay, that sounds interesting. So, I think I would check in with them again under like this multi-level perspective to see if they've got, you know, anything to add to that.

37:14

Jack could be great for that, because she's also a participant in the Landscape Impact Programme at the moment and becoming a director so she's got on the ground, plus the governance things to consider, yes,

37:30

and then I'll check in with Kate again. I was wondering the departments. I'd really like to get a perspective from the departments of agricultural, forestry and fishing. This Where are you getting your grants from those people? I'd really like to hear

37:49

So, the big is the \$2 million grant from the Office of Environment and Climate Change. And I think who you need to talk to is Simon Holloway, who's really our key - he doesn't run the Office of Environment and Climate Change, so maybe he'll recommend his boss after you've spoken to him, but he's sort of out in contact. And the manager of the \$2 million grant for New South Wales, the DAF grant, well, technically, the Australian Farm Institute in interfaces with the government, and we're sitting it as like a supplier, but in practice, it's us running it and the Farm Institute kind of fronting it, so that DAF is harder to get some, I think, but just via who is the head of traceability and supply chains, he's probably good, yeah, so

38:58

All these ones that I've mentioned. If you list them out, I'll, I'll come back to you name and email, phone number.

39:19 Yeah, wonderful. And I see Richard Heath is off to net zero, yeah, so hopefully Katie McRobert becomes the new CEO of the Australian Farm Institute. She's brilliant, yeah? And whoever does come in has got big shoes to fill, yeah, yeah,

Co-founders

So, yeah, it would be really good to hear about what's been up since. Because the last time we spoke, you were thinking about forming a bank?

00:18

And so, the big news, I guess, on the funding side, or maybe just to describe it for everyone. So, we've got, like, the three bits of infrastructure around the social infrastructure and the landscape Impact Programme, and give you an update on that, the technical kind of infrastructure, and then the financial infrastructure that the Mutual has been sort of working its way up to we've had to solve for the first two layers. But I think that's where your words of instituting kind of come along with the financing requirement. Because what what's happening is farmers that we take through a landscape Impact Programme come as a group of 10, and at the end of that, you've ideally created it like a blueprint for what environmental markets or carbon transactions are. The first off the cab, first cab off the rank, so that if it's an environmental planting, or if it's an avoided clearing method, or if it's a soil method, there's a bit of structure as to how they actually project manage that we could have them be self-proponents, where they face the regulator, but 90% of the time they're actually asking us to be the proponent and us to face the regulator that Yeah, yeah, because that they can get on with their main job, and they can trust us to be in on their side and have their interests. So, the first of those sorts of transactions have just happened in the trap rock around an avoided clearing method, and it's quite cash flow positive, because you're not chopping down trees, you actually get like, carbon first, and so you don't have to put up fences. There are no real expenses. The other six landscapes that we've finished, the majority of the environmental markets or carbon opportunities are in environmental plantings, and they have like, fences and trees and tree guards and labour and site preparation, and it costs about like 25 to 30% of overall project in upfront costs and where the proponent they're our costs, yeah, So we have to now have the funds to put those trees in and put those fences in. You know, the farmers are going to help us, but we've still got to up to you fund the costs. Yeah, so the mutual needs to raise capital in order to build its fences and plant its trees, knowing that they then generate a long tail of accuse, and we can know the volume of those accused, but not predict, really, with any great certainty, what the price. So our problem is like \$9 million worth of fences needing to be put in by June 30 next year, probably 45 million by the by June the following year, and you could just see that growing out to quarter of a billion by 2030 based on just doing more landscape impact programmes and engaging more local groups in getting into the process. So the brains trust, where you've got Alan Beatty and Rowan, who are both directors and both ex bankers, my best

mate, and a couple of others, head of IAG insurance wheel, and this Wendy, who's the CEO of the digital finance CRC, and we all got in a room, and we thought it sounds like a debt opportunity when you say you've got some upfront costs but a long tail, and you can know the volume but not the value, but You know the loan to coverage ratio is quite good. It's only up to 30% Yeah. And so we all thought, yeah, we're going to create a debt instrument, like a bond or something. But in the discussions, it became clear that you can't have a first time fund for debt with new players with no training, with no track record, and then offering no coupon for five years, because it takes five years for these trees to grow, to be considered technically a forest, and then get the accused and then be traded, you know, in 2030 so the. Reality of trying to do a like a debt fund, your debt instrument did not match. Thanks, man. And so the idea was more like, okay, well, who's got the problem that we solve? And that's the coal, oil and gas guys. So, they need by 2030 to have like, 45% of their emissions offset, and there's just not enough trees to go around, there will be a crunch. And we kind of likened it to an exploratory, like an early miner, where in they might have, like, a bit of ground that they've tested, and it's come up good for the composition of ore or oxides, or whatever they're mining for. And they go to one of the big boys, the coal, oil and gas majors, and say, we want 45 million to develop a mine, and you can have the royalty of the ore, you know, and that's how mining infrastructure gets built. So, they usually use those as a listed equity, so that, you know, there's some liquidity in it, and you can grow put more money into expanding the mine over time. So, we were like, Okay, maybe we're a listed equity. And the digital finance CRC are wanting to do. And their contributors are the ASX, Macquarie Bank, the big four banks, and they wanted to create like an analogy, analogous thing to the ASX, but for nature-positive assets. So, what we would do is list the nature-positive asset of what and promote it like a junior miner looking to the coal, oil and gas guys to invest in that. And we'd spend that money, that 45 million in the next sort of 1 824, months, in order to develop trees that produce carbon, they get their royalty stream off the carbon. And so, we're like, how do we fund this is a side topic, because the digital finance CRC needed to show pilots for the natural positive exchange. So, they're funding pollination to be our advisors. And pollination have the relationships with the coal, oil and gas majors, and so we're not so they've got a whole due diligence and getting non-binding, you know, offer agreements, and then taking us through a process that, you know, it's about 10 weeks, they reckon, and then charging at commercial rates, but the digital finance, the asset is picking up the tab, and

07:58

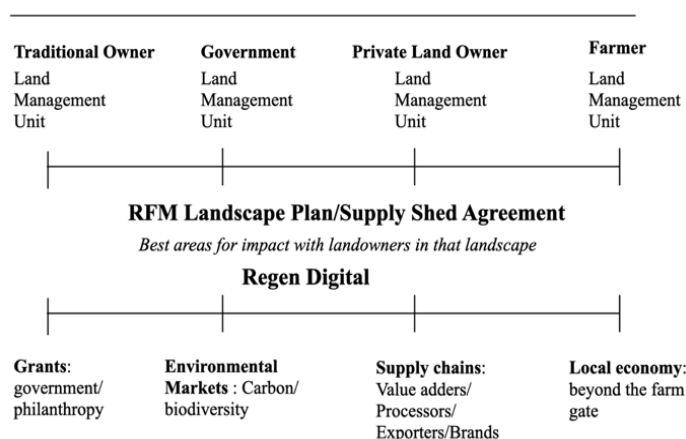
We were very fortunate to get the fin review, or the Australian did an article on the fact that we were starting this fund, and that's where the funds at interesting. And Rohan, you know, is perfectly capable of running the financial side of things that investment process. So, you're creating an investment fund that will then fund the project and get a return that's free, and it'll be the mutual that's the fund, so they'll get as yet. We don't know what the royalty looks like. But if the project costs are about 30% of the lifetime value at today's price, we'll need to retyre that much of the volume to meet the financing costs for the trees and stuff, and then we've got, like, say, after financing costs 50, 60% of the balance that we can trade, and they've picked up a secure source of carbon credits. And question becomes, and they have a financial return that's more than, more than compensated risk, like, yeah, so that's, that's the funding piece. The interesting bits in the social piece and more around market making, it's clear that the commodities, and so this fund will cover how many, like, the pipeline of projects that's lined up, like 60 projects that come out of three of the LIP's and the way to think about a project is they're like, going to be 50 HEC dairy worth of carbon of new plantings. And they're going to cost, you know, 100 to \$300 000 to put in that 50 hectares per farm, but they'll generate about 1.6 mil for that 50 hectares over the 25 years, and those trees, in most cases, will be planted where possible, in what was the box gum, grassy woodlands threatened ecological community, so the previous extent before farmers came along and knocked down all those Trees was box gum. And if you plant in such a design configuration, you can still graze and you can meet the threshold for the carbon. And so, what we're finding is that these farmers can put 50 hectares for the first five years and then another 50 hectares in another five years and reestablish an open woodland with, so there's provisions in the environmental plantings legislation that's been updated. I think it's like 10% in a year of nuts and berries and timber, but no more. And you know, you've got to be still maintaining a 20% coverage and two-metre height and all of the appropriate things. But we think that's really that particular opportunity of planting trees that become box gum grassy woodlands and recreate that threatened ecological community that's one of the biggest bang for buck in terms of biodiversity and production, and over about 70 million hectares called low hanging fruit.

12:22

Yeah, it stretches all the way she done like the seven of the landscapes we've done, five of them have had box gums, so trap rock in the north, all the way through the upper Clarence, the southern Tablelands, the West and Murray, the G to G it's only the Wimmera and the North Coast that didn't have box gum grassy woodlands as opportunities. And, yeah, it's sort of, it's, it's in terms of, that's, if you think of our pools of capital. Can I draw for a second? Yeah, I've

got a book here. We've got a new way, newish way of viewing the world. So, I've got to do it facing me – (draws sketch below).

13:17



Okay, so you've got traditional owners, you've got governments, and you've got like, private landowners that are non-farmers, non-farmer, and then you've got farmers, right? And for each of them, we can see that they've got like, you know, got to come together and have like, a vision, right? And that's good. But then each of them, in their own respect, will sort of have three things to a plan. It's like the land management units that they're physically on their farm, the priorities, you know, what can they do and the strategies, you know, what are the ways in which they can engage capital to make those priorities for those land management units? So, each of them has those three elements to it, what we call a landscape plan, and then there's like, four buckets, or what we're calling the pools of money, and they exist as, like grants, and if you think of grants that could be government or philanthropy, right? And then there's this other pool called environmental markets. So that's what we just talked about. Now, us facing the regulator, taking on and so environmental markets is CO2, and biodiversity, whatever comes out of that. And then there's this supply chain. So, the supply chain. Is where the food and fibre that comes off the farms is going, is source of market and institution, because it's 99% of their concern, you know. And that's, you know, value adders, processes, export, the brands and the levy fee, kind of the CRC, CRDC's and stuff. And then there's local economy. So, this is where we've been kind of innovating recently in our landscape Impact Programme. And that's sort of the beyond the gate concept, and it includes everything from multiple land use to value chain coordination, so tapping into the need for local and state and anchor institutions to do circular and local procurement. And so, we've kind of identified that strategies for these different landowner groups, and they're different land management units, and because they're different people, that you know, the government has a different set of incentives to the farmer. They

might have similar land management units, but that different set of incentives because of the type of landowner that they are determines different priorities and makes the strategy for raising and who they're raising from different for everybody. So, we're starting to kind of understand that that's called, like a landscape plan. Yes, and the other, the other sort of thing that's happening is the way in which nature, rather than climate and environment, is starting to be reported. There's like a Venn diagram, if you will, between landscape plans like what that details and the Venn diagram around supply shed right, and that's where, as a, you know, commodity, you're drawing your wheat or wool or food or fibre from right. And that's quite tightly aligned. And what I've what we're trying to fight against is these commodities, be that cane or sugar or cattle or whatever, cotton going, oh, look, this whole measuring carbon emissions thing is difficult. Measuring biodiversity is going to be even more difficult, right? Yeah, and we're just going to use from space industry averages. And half the farmers will be, you know, not rewarded appropriately, for the good work they're doing. And half of the farmers who are fucking things up, everybody will just get the average from space. And we'll just come up with a commodity based, you know, and like, top-down kind of solution, where we go for wheat, if you do this tier, then you get this premium. If you do this tier, then you do that premium. And that doesn't take into account the differences of environment where you're drawing a commodity from. So, wheat can be drawn from Far West rangelands, central northern Greenland, South Australia, all along the eastern seaboard, and all of them wheat in each of those environments shouldn't look more like specific, specific to that landscape. So, we're of the opinion that our groups should be creating what they call a supply-shed agreement, and that that agreement is, you know, identifying what are the best areas for impact in with landowners in that landscape. And then the commodities can actually say, Okay, well, if I'm drawing from the trap rock or the southern paved lands or the upper Clarence, or wherever they're drawing from, these are the supply-shed agreements for the growers in that region with respect to that commodity, we're going to support that particular buyer region based on what it needs, rather than based on general indication, farmers on an individual basis, signing up to a commodity wide agreement that is blind to the nature of Where that commodity is actually so and with metrics that are adapted to the to the actual land. And we think, you know, tea leaf reading the TNFD's talks about landscape context, and you know local community engagement, and they use the term supply shed. So, we think the TNFD and the SBTI's are going to move the supply chains to look at context. And then if you put forward like, here's a way to actually make practical that context in this environment. Then whether the farmers in G to G or star are selling

wheat or wool or the same landscape. Landscape will get invested in by different commodities based on how much they draw from that particular landscape.

20:35

And so how do you connect that with metrics like, okay, you have your specific agreements around the type of thing that should happen in an area, and they would be very different. But, you know, I mean health, health economics, yes, they can tell you how much your life is worth. So, so is that? Do you then, can you have something that that's measurable?

20:47

Metrics are just a claim, and what the technical learning that we've had is around this United Nations Transparency Protocol, we've talked to you about the UNTP, so to prevent or everything that's good in the world works on protocols. Email is protocol. Websites are a protocol. Technologies themselves suck. And everybody thought a blockchain would be the solution for long supply chains, but nobody wants to get the same blockchain, and so technology isn't the solution. The UN has decided that they need a protocol for how do you put claims together that can be trusted? And so the basis of the idea is you make a claim against the standard and a trust anchor can verify that claim, and then, because you trust the trust anchor, the claim can move to the next part of the supply chain, and you don't need to see the original information, yeah, in order to make a claim.

22:07

Yeah, okay, but that's, that's, that's more the ledger effect. That's how you transfer. But my question was more, what do you and without necessarily getting into details, is that, can you have, how do you measure what you are, the value of what you're doing, and how do you compare it, if it's so different?

22:28

Yeah, the pools care about different outcomes. So, like when you say metrics, you could be talking about the environmental outcome metrics or the financial performance metrics, or, you know, hitting us a local procurement metric. So, all of them are essentially requirements, or meeting requirements. And, you know, the grant requirements for a farmer to comply with that they have, like a project management step by step, if they take up an opportunity, with respect to a grant, if they take up an opportunity with respect to that 50 hectares of box gum, new environmental plantings, there's project management requirements for each of those that are step by step, and we handle those gathering and collecting of data through that digital platform which is Regen Digital. So, when that started, when we were first talking it was just an open-source mashup of FarmOS and Survey Stack, and MVP. Now we've got Luke our CTO, and

it's sort of happening. We can collect any sort of standard, and you can extract out of that what the requirements are, and then that becomes a workflow for project management, and then, as a farmer, I'm literally getting pinged. I need this. I need that. I need this, and it works you through the workflow,

24:10

Yeah, but I guess my question is, how do you match the local specificities with this type of standards? I mean, it doesn't have that different standard, but then you can you do your shopping where it's the best out, yeah, like, does it create a tension around measures like, the fact that you will have very different things depending on the areas, which makes full sense, but impossibly like, but I think if what this enables, like, if you, if you leave it just to business as usual, I think, where a commodity will determine exactly what they're going to pay or not pay for every farmer, regardless of their bioregion. Yeah, then you don't know you're going to get these really, no incentive for the good behaviour, no incentive for the bad behaviour, generally, it will mean that each individual farmer it just becomes a cost of market participation, and they'll wear the cost of reporting and compliance or practice change. And there might be cents in the dollar provided by the value chain, but there won't be a proper reward. Whereas the way in which we view the world is these, you know, sustainability reporting requirements and fiduciary responsibilities, they're hitting Coles and Woolies and all the big food majors before they're hitting the farmers. Yeah. So, the problem actually isn't farmers. The problem is the retail guys.

25:45

So basically, so now I'm just trying to get to reasoning, ... you look what's best for this land and this type of owners, and basically, then you go shopping and you see, if you have a match, is that, is that or do you influence you understand it on how it's...

26:05

Well, there is a process in the landscape impact programme where we're bringing farmers through, what can we do that makes economic and environmental sense? But we have a session at week 12 of the 20 weeks, where we've actually got the supply chains and the banks and the local economy from that region sitting there. And the format of that session goes the banks and the supply chains, and the invited people get 15 minutes to say, what are you doing around environment and farmers in this region, and then we have a cup of tea, and then the farmers come on and they say, this is what we think we can do. And then the facilitated project is, what's the gaps and overlaps, and what are the measures and costs of measures? So that's really

about that confidence. We go, oh, well, we can only accept a third-party audit, or can we accept a farmer self-assessment with a photograph?

27:03

Yeah, it's more what you do to the land that will be basically a matchmaking between these two sets of objectives two side of this graphic, that's the best match we could do. So that doesn't necessarily guarantee the best environmental outcome. It guarantees at least that there's something being done. Okay, yeah, yeah. That's a matchmaking between, between the box from the top and the bottom of the box.

27:41

You get to the thing where there's land management units for land, and it's either riparian zone or rocky outcrop or production area, or it's irrigated or dry land production area, like every land management area, has a classification right, and then there's only so many interventions with respect to that, right? Yeah. And how do you fund those different interventions, and for what impact does that have? So, if you're going to put on lime versus cow shit on a farm, they're both interventions, right? And you might have a local circular economy opportunity that can give you cow shit and lime comes out of a bag, and an input supplier is going to want you to pay for that. There's an assessment that farmers already do with respect to production around well, do I want to support my local economy and take some effluent, or do I want to buy some lime out of a bag in order to get some productivity. What's been invisible until now is, what does the supply chain think of the emissions associated with you - get everyone in the room, and you have all the factors that can impact a choice. So that farmer who might be well incentivised by the local government, or by, you know, because the local council held for net zero, 2030, kind of, you know, goal to actually use the cow shit, which is a bit more expensive, but it's local, than using the lime, which has run off and associated costs. But the agronomist in that room is going to be like, no, no limes. Can give you the bigger banks, but, but you've got to actually have farmers go through this process where they understand what they can do in the landscape, and that's so that this meeting that's half a day or day

29:34

So, it's 20 weeks, and I take like a working team of five, they've all got roles through weekly zooms. So

that's in the co-design, yeah, so in co-design, it's the mutual, it's the pilot. I think that's where you need to go. That's what we were seeing. We get the moment, you have this co-design, and I'm just talking about the publication strategy, and you just have a little blurb about it. I think what's in, yeah, what's interesting is this type of elements, and see what, what each big lead to,

and what the underlying processes. Because, yeah, what at the moment where, yeah, where there's actually a process around the 20 weeks and all the stakeholders coming in, yeah. And so having that's where to actually feel the granularity,

30:30

Yes, and also, what I'm beginning to see is that you have these contrasts, you know, like in a regular world, you'd have this corporatised solution, which is what you describe. But then in an innovation ecosystem, type of solution, it really is co-created. So, it like, from a framing point of view and from a mindset point of view, it's like a very different quality of solution.

30:58

Yeah, yeah. There's some way, you know, this thing of social materiality, where reacting, that is the fact that you have a social dynamic. And so, you basically, you process socially, the market's incentive. So that's where I think this process is really powerful in terms of what I refer to as evidencing, so what it produces is a very different idea of solution. At the end of the day, it is also deeply transformative to everyone who participates in it. So, from a framing point of view, from a field effect point of view, even from a regime effect point of view, because those supply chains that come in and participate, those government representatives who come and participate; there's a deep reframing experience that is happening there, and an appreciation for a different quality of solution. So, I think that is the deep power of this kind of solution creation is because it's not imposed, but it's co-created, and it's meaningful, and it will lead to more impactful outcomes. At the end of the day, it's more complicated for corporates to get their head around. And so I wanted to ask you too, because I think then, the more I sit with this, I think the power of what you're doing is about reframing from the start, you know, just in terms of bringing these four aspects together, then it's, it's really reframing how collectives start thinking together and start shifting a reality towards something that is

33:06

Yeah, do you have, so do you have examples of the outcome of I mean, especially interested in the moment when you bring all the stakeholders together, what I imagine is, in terms of reframing, you would have re-composition of value creation and distribution in quite a radical way. Yes, and I think that's the type of thing that, well, it's interesting from practice. So how does this co-design process radically affect compared to a scheme that would be standard, yes, how does it help radically rethink the value creation and value redistribution?

33:45

Yes, look, this is really bad because it's an outlier, but it's in price, right? Like, sorry to be boring in

terms value redistribution with this. So, yeah. So, here's the ACCU's that we'll generate, not that piece the other piece of work that we were talking about the ACCU's - the spot price. You can get them for 35 bucks today. If you wanted to get like indigenous Savannah, pay like 55 to \$60 compared to \$35. We have sold the first 1 000 ACCUs at \$100 an ACCU, and the reason is because they're retiring those ACCUs, not trading them, and they're seeing the high value of carbon, integrity and the biodiversity, because we're connecting 14 farmers a national park and estate forest. So that's creating this connectivity for koala and quails and woodland birds. That's the biggest private estate, basically, of remnant box gum woodlands. Then they're all part of the mutual. So, they've done this collectively, you know, they've had us be the proponent collectively for them. So, you know, might have cost them in 5% to the mutual, but the premium they got on price wasn't \$35 that, you know, it probably won't be \$100 for every ACCU that that group sells, huge, but it will probably be something equivalent to indigenous Savannah, because they're farmers that are collective action, doing coordinated and connected in the landscape. Things that's seen as a higher narrative, higher value, and we expect that we won't sell anything at the \$35 spot price. We've got a narrative that's really strong and emotive and tied to food and fibre production, local place, so, but that's different from the 50 actors. So, it's the 50 hectares, but it's cumulative. So, you get a benefit from each 50, and you get a community benefit for the and you could, you split that? Yeah, you could potentially, but you don't know. At the moment, you don't so you're selling the whole thing. So, what you're selling is, is several times 50 years for landscape, so instead of project, yeah, so that was surprised by the 50 hectares So, and that's where you get your \$100 premium. It's if you have a sufficient number of 50.

36:50

Like the 50 hectares, technically, is about environmental plantings and establishing new box gum the carbon credits that we've sold for the \$100 they were the avoided clearance in the Traprock where you weren't chopping down existing box, yeah, but you had the legal right, and you've done it twice before. And so avoided clearance works like you've got to show that you've cleared and it's regenerated. Then 20 years later, let's say when those trees have grown back, you've cleared and regenerated again, and it's the next 20 years and you're due to clear it again. But instead of clearing it, you're keeping those trees, okay. Now that is called avoided clearing, and they're the first lot of ACCUs yeah, and they're keeping that box gum corridor between the State Park and the national park when it so,

And how many of these processes are 20? Was it 20 Week programme?

38:19

I've done seven. I've got six that are paid for in the pipeline. We want to do 100 by 2030, and then you also have these self-directed ones, yes, so the first seven and the next six, you know, I've already learned so much from doing the course, and we've got the tools now, like the technical platform tools, that when I do it's basically 150 000 per programme, and we think we can get that down to like 50,000 per programme, where 25 comes to the mutual for the tools, but 25 stays in that local community, and it pays that working team, and it has a small budget for marketing and scientific input, but they use as a cohort with another nine landscapes that they actually go through Week by week themselves and locally facilitate Using our content and using the kind of curated process

39:23

That's super interesting, because it means you create what, three times more value, which is good for the farmers, but it's probably also good at your environment, because it means it needs your project like so that and that can be published in a business, and environment be great to document it. Yes, just this thing. How people shift? How do you shift the value distribution, creation, distribution among actors that never really talk to each other, bring them around the table. Yeah. Super exciting.

40:33

So, the other thing that I thought so, I think this reframing that happens, well, the reframing happens at a number of levels. I think your Trading in Regen event was the first reframing – a big piece. Yeah, the second piece for these landscape impact programmes, yeah. I think the third piece is Regen Digital as it connects like these separate pieces, the verification, certification, traceability, with landscape impact programmes, with credit methodology, all those as it starts linking these things together, it starts creating an understanding of something that is larger than anything that has been understood in relationship to each other before, and so that reframes a marketplace. So, I think those are kind of three levels of reframing that not only change the field, but that also start increasing your influence in the institutional regime space. So as your field of influence and as a solution becomes more integrated and understandable, it starts really enhancing your market making and instituting capability. And I think the minute you start adding these financial plugs into it, and start finessing this bigger value proposition and solution, the more that reframing becomes like shifts at a macro shifts things at a macro level. So, you can see this reframing happening, happening first at a niche level, then it starts touching a regime space, as you know, you start engaging them, but then it starts shifting at the other level.

So, I understand the 20-week thing and how it would shift. Maybe, if it's redundant with what you have, so be interested to look a bit more to shift at the other level. So, what, what is shifting and what, what is shifting because of your actions?

43:05

So locally, people will agree on a price and actions around the landscape. We're seeing evidence. Historically, for environment work in agricultural private land has usually been grant-based or individual incentives. So, if you fix this erosion, here's a grant to put the fences up. It's usually aimed at individual action by an individual landholder. And then maybe only two years ago, when we got that New South Wales grant, and we said we're going to run four of these landscape impact programmes, and then we're going to give each of the farmers 10 grand to get CER registered, and another 10 farmers five grand, and they can match pay to get CERs. So, that's what's happening. That's what we're creating now, which is that 9 million before, right? Like we're creating all of those new projects coming through, but another part of New South Wales Government, they're creating input from a one was the land use sector that gave us our original grant. But they've seen how successful we've been with engaging with groups of farmers and getting like landscape scale impact that they're putting out a sister fund about \$70 million and their conditions of that are that now groups of farmers can apply and that it would be contingent on the group identifying landscape scale impacts. So, we're seeing that in the New South Wales Government, but the Victorian Government, they asked me to put them in touch with that New South Wales Government, because the Victorian carbon farming programme wasn't working, approaching individual farmers, and they've also seen the success of this. So, they are now wanting to restructure their Victorian carbon farming programme to work with groups as well. So, we have seen like the start of States starting to go if we want to make an environmental impact, the individual incentive and this sort of dislocated and drought hub, they've kind of identified in hydrology, right? If I'm one farmer and I'm less than 15% of the surface area of the catchment, I can't actually materially impact the flow height or the flow speed downstream of me, because it's too small of surface area to make material measurable difference. So, you actually need like, 60 to 100% of the surface area of the catchment, in order to measure the impact that that might have. But if you think about how big catchments are and how small a farm is, and what drought incentives have usually been provided to individual farmers in a drought scenario, the drought hub is like, well, actually, we want all of the farmers in this action to do a coordinated activity on erosion and weed control and plantings and things, and then we can actually measure the impact that they're collectively

having, because they've collectively got the surface area to make a difference. So that's different.

47:10

So, like any other big step forward. Well, I think ramifications the other group is this, the commodities, the food and fibre, I think the SBTI's and the SBTN's and the Task Force for Nature-Related Disclosures, they're saying that they have to report on this sort of supply shed and landscape scale in order to have context and validity. And so, I think there's several forces that are just saying it's sort of obvious when you think about Pollinations work in the way that geology works, and the way that hydrology, the nature works at a bigger scale than a single farm, even in Australia, yeah, even, believe it or not. And so, you actually, if you want to make a material impact, you have to get these scale benefits of working farmers in a close proximity and the concurrent happy consequences they get the economic scale when they come together to be more material than they are on there, as you explained before, yeah, okay, and then there's another level. So that's how you influence, that's how you influence the government.

Co-Founders

So, the CRFM Traprock scenario. Look, it was very convoluted. But we, you know, found our farmers, and throughout this there'll be like issues, but we registered the project. We then did our lodgement, and we went and lodged in September of 2024, and then the CEO was quiet until the January 10. Then we went through all these requests for information processes. And they started off with the clearing cycle questions, and then mapping issues, and then prove that there was grazing of sheep and prove that we would clear today, and then a second round of mapping issues. So, we dealt with all of those. And then the Amos. Actual method of avoided clearing closed on the 30th of March. But what they told us on the 26th of March was that six of the seven projects weren't going to be allowed through. And what really annoyed us was they told us that two of the projects weren't passing the clearing cycle questions, but the other five had and so we continued working through the mapping issues and the grazing of the sheep. And would you clear today issues with the other five? Yeah, on the assumption that the two that hadn't been able to identify the clearing cycles were pulled up. So, we assumed that the rest were fine to go ahead. But then on the 26th of March, they went back on four of the five that were remaining and said, well, those two, those four, didn't have their clearing cycle right either. And so, on the 27th we said, Hang on. That's not fair. We want to kind of challenge that, but which we would have had the right to do, but the method expired in three days' time, and so that clearly that wasn't 28 days' worth of notice or our ability to respond. So, the farmers got pretty pissed off, because, you know, we spent \$108 000 after the two had been stopped for clearing cycles on the remaining five. Anyway, one out of the seven of them was given an approval so they could say, oh, look, we didn't say no to them all. The politics of it is that the farmers think that they were denied due process and are going to use their senator in David Littleproud, the head of the Nationals over here, to seek to drag the Clean Energy Regulator over the coals. And for us, we're trying to make it so that we've got better, better processes and better solutions with the Clean Energy Regulator. Because what they did, you know, had played us pretty badly and pretty expensively. But that's what happened, is that the Clean Energy Regulator let the method expire after dragging us out. And yes, so we've still got the opportunity in the trap rock to create the biodiversity corridor between sundown National Park and pikes Creek, which still applies to the 14 farmers, but only one farmer out of them, instead of seven farmers out of. They are going to get a carbon project, and that has meant that the accused that we were going to sell on behalf of those seven for, you know, \$100 a piece. Well, we might get a good price for the one project, but it won't be \$100 after that, the group carbon for good, we said, oh, look, sorry. You know that project's no good, but we've got this other

project where we're planting trees and restoring box gum grassy woodlands in the southern table lands and the pilot farmer Jeff k is, you know, being a real hero in that he's done it himself, and now he's shared it with us and shared it with others, and that that that he deserves the \$100 for his accus, and they've agreed to that so we don't have the TRA prop being the first 1 000 accus at \$100 we have a southern Tablelands farmer that developed that design of planting trees that restores box gum, and he'll get his 1,001st 1 000 accused at \$100 so it's one farmer, and it is an inspiring story, and We will be rolling out his process to hopefully hundreds and 1 000s of farmers and that does Institute, yeah, we've been trying to do, yeah, but it shoots it in a materially different way to the Traprock example.

06:56

So, I think what I was looking to, I mean, I think that example came from our last conversation with Emmanuel. And so, I was looking for evidence of the Regen Farmers Mutual approach and process starting to materialise. So, it doesn't really matter if it's one farmer or it's kind of this traction, you know, the beginning of traction. And once you start getting that traction, it becomes, it becomes easier for people to understand and to start buying into. So, it starts providing that evidence. But what I was quite you know, on getting that feedback from you, it was quite interesting in terms of as you develop this ecosystem and as you develop the processes that become part of this new value exchange design. You know, the way of kind of creating new value. What you're also pointing to in this example are some of the roadblocks and some of the challenges in terms of aligning your value exchange design process with policy makers and regulators, who you need to respond to this, this new paradigm. So I don't know if you want to comment on that that you know or talk more about the challenges in terms of the new paradigm, the new value exchange that you are creating, and you know the challenges and opportunities in terms of coming up against old ways of thinking about this and old responses to this novelty.

08:56

Well, I think one of the challenges, one of the bits, is that the Clean Energy Regulator you would think, has a vested interest in helping mass adoption of carbon projects, and we as the mutual should have alignment with that. And so, what we learned in that trap rock example was that actually what the Clean Energy Regulator was responding to, was a heap of pressure in the Australian market at the moment around well, can I be frank, they've fucked up a lot at the Cean Energy Regulator, so they let through a bunch of dodgy methods. They've made it complex that, and then the politics has been they've been shown to have dodgy methods around human induced. Regeneration, landfill gas avoided deforestation, and coming to the end of a

method, here was six or seven farmers putting in essentially a joint application. And they were just like, instead of welcoming cross collateralisation. They were like, oh, this is just too hard. Let's starve them out. Let's wait them out. And then once the method had expired, the legislative act will have expired. So, in order for us to get them in trouble, we'd need a special act of parliament to reconstitute that law to then go after them, which is just never going to happen. So, you know, the challenge is that government policy should be about can, you know, encouraging mass adoption of farmers into clean energy projects that have integrity and, you know, scale. But instead, they're more worried about criticism and greenwashing and methods that were dodgy. You know, they're responding to those with methods that aren't, I guess, one of the clearest things that we've done as an organization can I share with you, so avoided clearings a bit different to say, the environmental plantings project, which we're doing a lot more of, but that environmental plantings project, we've now, you know, Christoph and his brilliant brain, we've downloaded how to do compliance with the Clean Energy Regulator in doing environmental plantings to such a degree that it's just a bouncing ball. And if you follow the bouncing ball, and you do all of the things that are required, you will get compliant with the legislation, and you should be, you know, it would be unlikely, if not impossible, given the compliance with the legislation through all of that process, for them to reject you. So, we've built technology on our end to but yeah, quite honestly, Shereen, I think that the politics in Australia has been that they might just totally get rid of the Clean Energy Regulator and the carbon market and put in a carbon tax, which is what a female prime minister called Julia Gillard tried to do. She got rolled. You know, 13 years later, they have an opportunity to actually put in the carbon tax and replace this Clean Energy Regulator which has had all these dodgy acts, you know, yeah. So, yeah, we're maturing, but at the same time, we're maturing for a market that might just fucking vanish up its own. But yeah, how else to prove that we are maturing? The Case for the sale of carbon credits is is the strongest. I sort of agree with the manual there. Otherwise, like, generally speaking, the fact that we've got those grants, the 70 million is 10 million, but they're totally evidence that we're doing the right thing. There are quite a few copycats starting to come out of the market. That's evidence that we're doing the right thing

14:35

yes, yes.

14:39

Our partners in things like the Landcare Victoria and ANU and that Victorian based landscape impact programmes. Well, all of them are now running, you know, Landcare Vic's running their

own programme with us backing it the New South Wales. Farmers Association want to start turning their chapters into landscape impact programmes, so there is a bit of evidencing, but the best evidencing would be the Jeff K selling His at \$100 - but he's a single who's influencing lots of people, but he's not a group like the Traprock, yes.

15:25

So, what is the future on the Traprock scenario? What are you planning to go forward?

15:34

So, nothing with carbon, but biodiversity has both a regulated offsets, because there's lots of wind farms going in there, and the Nature-Positive credits that ANU developed, that LRF funded. So those that biodiversity opportunity, that was the one that they all were interested in anyway, rather than the cut that's still alive and kicking, yeah? Okay, they're a little gun shy, right? They've invested two or three years with us, and we haven't, you know, haven't closed the deal. Yeah, and it might be disappointing that the Clean Energy Regulator made it difficult or impossible for us to close the deal. But you know that farmers, they're kind of like, well, you know, we didn't do anything wrong. They didn't. The farmers didn't do anything wrong. But it's little comfort to say, well, the Clean Energy Regulator did everything wrong, but no one's got any money out of this. So, yeah, I wish we had just done what we said we would do with the trap rock, and then you wouldn't have to change anything?

17:03

Well, I, you know, it's, it's still a great story. And I, you know, I understand that you're coming up against a system, you know, and that's, I think, part of the challenge with what you're doing is bringing an entirely new paradigm into a complex marketplace, and I'm sure it's still going to be, there's still going to be lots of roller coaster rides, as you challenge, and, you know, a rapidly changing system, and then that it's also very politically sensitive. So, it's not even that you have a commercial paradigm to engage with and try and transform. It's also influencing, you know, political intelligence around this,

18:00

yeah, but I think that's, you know, sort of your conclusion is right? You got to innovate the innovation process. But if the innovation process is the Clean Energy Regulator was set up in 2014 when they didn't believe in climate change, right, and mass adoption wasn't their concern. It was trying to, you know, satisfy the mining interests, and maybe it still is like at the end of the day. Yeah. So

18:33

why it was, there's so many questions I want to ask you about the other comments, which we'll get to it, but why it was really important for me to get the RFM story straight was because your case study has been so powerful in terms of identifying this new construct I'm calling meta-innovation, which is innovation at scale. So, it's around how you how you, through ecosystem innovation, transform an entire system and then, and what that requires. And so I mean, when you have time, sometime, I'd really love because I conclude the dissertation with that construct and a praxis, what I'm calling a meta-innovation canvas, which I take all the lessons out of the RFM case study. And the case study acts as a one really big example of meta-innovation in action, together with some case studies that come out of the first two papers. But this is why I think what you're doing is so extraordinary. And it's not, not necessarily like the dissertation doesn't need RFM to be a huge success. But. It needs to do is to provide the deep kind of insight your approach has offered. And you know, just the ecosystem work model that emerged out of this. Again, we I draw very heavily on that in the Praxis piece. So, yes, so this the case study is more is more important than just demonstrating success. It's about demonstrating how you as two entrepreneurs and you know, a community of like-minded spirits, really achieved something quite remarkable over time, and how that has the potential to really shift a larger socio-technical system. So, yeah, I'm not, I'm not worried that, you know, we don't have 1 000 accused at \$100 a piece, or what I wanted to ask you, though, is, is the kind of average Accu price around \$35 what is the average price? Ah,

21:11

so to use a Yeah, \$35 is what you'd call the spot price, or the generic generics price, but for \$35 you're going to be buying one of the dodgy methods, like HR, HR or landfill gas, if you were trying to buy carbon that came from, say, environmental plantings or indigenous Savannah with the CO benefits of you know, that'd be 50 to \$75 so 35 is the spot price, the cheapest, the most common, the generic price, but there is premiums for differentiated carbon, our premium of 100 was good. Yes, stunning. Yeah, yeah.

22:11

So, the other thing I wanted to ask you around the supply chain verification story, um, I just knew that at the time, it was a big deal that you were working with McDonald's and go source and the UNTP the protocol. I obviously didn't understand it entirely or accurately. So maybe, and for me, that felt like that was an important scaling story that I wanted to include. So even if it means that McDonald's didn't play a big role in it, you know, the fact that you are now starting to link with supply chain, more specifically, beef, you know, so it's part of that value

exchange design, all the aspects of connectivity. So maybe you want to just tell me what that story was about so I can record it accurately. Oh,

23:10

Another sad story. So McDonald's is based in the US, as you know, and just towards the end of last year, Biden before Trump came in, made the determination that all those companies on the Securities and Exchange Commission the SEC, which is the equivalent of our ASX, they would only need to report scope one and scope two emissions, and not the emissions from the ingredients that go into products in Australia, Europe, Asia, it's all scope three. In America, North America, particularly us, they're, they're, they're not interested in scope three. So, McDonald's went from oh, we need to report scope three to fuck, no, we don't like, we're not going to do this voluntarily, yes, but their initial thought that they had to meant that the whole of the Australian beef supply chain reacted, right? And you had two processes that make all the patties for McDonald's and Burger King and all those fast-food restaurants. One was called Tyson, and one was called Terosi, and we deal mostly with Terosi, and those two worked out, you know, how they were going to use the UNTP and a bunch of the abattoirs that they get trim from, worked out how they were going to report using the UNTP, and we worked out how we were going to report farm emissions and send them to those. Abattoirs and processes so that they could send them to any client, including McDonald's. But McDonald's is the least motivated now, compared to, you know, any other restaurant that's not in in the Yeah. So, kind of, it's all politics again, yeah? Like, yes, and can't imagine Trump is going to tell the Americans that they need to account for their pollution and environmental issues. Yeah.

25:41

So, my understanding that that was kind of built into the Regen Digital platform. So, does it? It obviously does exist, whether the market demands it or not, you still have that capacity.

25:52

Oh yeah, yeah. So, like we, we've gone and built that capacity far and wide. Shereen, so like, we can now do it for beef, for grains, for cotton, for cane, for dairy and so if you go into any of them, you can fill in the carbon emissions. And then when you lodge those carbon emissions, you can probably need to find one that's done. Yeah, right. Then not done. But once you've got the calculation, there's not enough fields populated there, you can verify that claim. And in theory, that means that myself or one of the Regen Advisors have seen the stock books, which show that the number of cattle for if it's beef, the fuel and fertiliser receipts, the electricity receipts, so we know that the figures that they've put into the calculator match reality. And then it's not just them having done a calculator, it's them having verified their calculation and being

able to pass that up to the abattoir, the processor, the end customer being coals or Woolworths or butchers or international markets or, you know, however they sell it. So, yep, we built the technology in. And honestly, last little while, Rowan and I've got really quite excited about that technology, because, like, beef is probably the worst emitting because of rumination. So, what we've said is, like, looks like one cow produces a ton and a half of carbon dioxide every year, which is about a tree and a half every year. So, if you got 200 cows, you need to plant 300 trees. We're like, oh, we at 300 trees is probably enough for a family to do on a weekend. And you know, it could put it together such that McDonald's and Coles and Woolies and the processes and the abattoirs end up pulling their funds together to make sure the farmer has the money to plant the tree and measure and verify that the tree has been planted, and then that beef that comes off that farm or in that supply shed should be carbon neutral, yes, and beef is the worst, like worst emitting if you're using something like cane or cotton or grains, really the photosynthetic process means you're not you're not ruminating for a start and the only sort of emissions are related to your fuel, diesel and fertiliser and insecticide equivalents, which means, instead of you planting a tree and a half per cow, you might be planting a 10th of a tree per hectare, Right? So, it'll be much, much more scale, you might have 30 trees to plant a year if you're a grain farmer, and 300 trees to plant if you're a beef producer. But if you're wanting to do a Clean Energy Regulator. Project, you're probably looking at 20 hectares, at 200 stems, 4 000 trees, minimum. So now you can be operating at a scale, like a family scale, planting trees. So, it's really fucking evidential that stuff, that that practice has happened, that the tree is there, and so, yeah, I think a lot of the farmers will end up saying, I don't want to go with the Accu market and the Clean Energy Regulator market for 25 years. It's too much dodginess happening. I just want to grow my beef. And if I can plant a tree, and all these people then recognize that that tree means my beef is carbon neutral, then away I go, Yeah, and just place beef with cotton or cane or grains or anything that's a plant,

31:01

Yeah. Okay, so that's great. The story still holds very strongly in the paper. Then, you know, as again, creating the tools and the connectivity for that value exchange, design, process and scaling. So, I'm happy with that. I would, I will just talk generically around supply chain, beef, grain, all the examples that you suggested there. Okay, so that's not a problem. The other question was around 70 million. Oh, yeah, so again that you're saying that, if I understand that quote correctly, you're saying that, in the past, grants were allocated to individual farmers, but increasingly, grants are now being allocated to landscape scale projects

31:59

Almost exclusively, grants have been given to individual farmers, and I'd never seen a grant given to groups of for group efforts. So did you get a chance to read that low-carbon landscapes?

32:20

Yes, I did, but it looks like, but that looked like a group thing, yeah,

32:26

that's, that's the first time ever, okay,

32:29

okay, so that's otherwise. That's the point is that this is new, okay, new, yeah,

32:35

because usually you get grants, like, I have to apply as Andrew Ward, right? Yes, and I might only have my size farm, but now the only way you can apply for that particular low-carbon grant is if you've got 3 000 hectares multiple farmers, and you connect demonstrate CO benefits beyond the carbon, right? So that's like, written for us, like,

33:10

yeah, okay, so I really then just need to specify, be clearer around that, yeah.

3:23

Yeah, so like the lady who you know the politics works like this. The New South Wales government made a commitment to reducing its emissions even more aggressively than our national target, and it put aside at least 70 million, maybe \$100 million, to do their path to net zero. And in that big bucket of money, they put together the PIP app programme, and we applied to the PIPA programme, and we put our novel kind of landscape Impact Programme process up, and then that was called the land-based process. And then they were going to run a markets-based process. Now the land-based process meant that they put money into Regen Farmers Mutual nearly \$2 million but they put it into things like the living carbon programme and an advanced plantings programme and a whole bunch of other programmes that were basically providing individuals with funding, as opposed to landscapes or groups with funding. And in the course of the last year and a half, the success that we've had working with groups, they've been watching as the market. Team. And so, they decided, well, we're not going to do individual grants. We're going to do the sort of thing that regen Farmers Mutual wants to do. And so, they're encouraging land care groups, and they're encouraging NRM groups, and anybody with multiple cooperatives, like casino food Coop, etc. If they want to come involved, they can pitch for up to a million dollars to do multiple landscapes, or half a million dollars to do a single landscape, which is like incredible for us, right? Yes, yeah.

35:44

Okay, great. So, it's just to make that statement more accurate,

35:51

Yeah, and the 70 mil, like the New South Wales Government put in lots and lots of money. Pippa got 10 mil, of which we took two and then the market space thing has got 10 mil of which will apply for 2 million ourselves, but we'll support the Mulloon Institute, New South Wales Farmers Association, LLS, a bunch of our friends, Jacqueline in Western Murray, to all apply themselves, but they'll lead it, and we'll sit in the background as a service provider to them. But we would hope that of that 10 mil, you know, either directly or indirectly, we can get a big, big, big slice of that.

36:43

So PIPAC?

36:46

it stands for Primary Industries, Productivity and Abatement Programme.

36:54

Okay, okay, cool. Then, um, okay, so those problems are easily solved. I can address that, and I'll just send you in an email. I'll just send you a little summary of how I've edited that, and then you can just let me know if you're happy or not. And then on the you know, I think I lost the Landcare/NRM thing as I edited down very long pieces into shorter pieces. So, I've edited that again so that there's no confusion between the Landcare story and the NRM story.

37:39

yes, I think so, where you're saying third, a sophisticated network of coordinated Conservation and NRM had evolved across Australia through parallel developments at grassroots and policy levels. At the grassroots level, the Landcare movement was established in 1986 while at the policy level, key national developments included the Council of Australian Governments, the establishment of the National Heritage Trust and the introduction of the EPBC. These concurrent grassroots and policy initiatives ultimately converged in the establishment of 56 natural resource management organizations across Australia. Over time, these NRM organizations have developed, yep, that's all true. That's good now. And Landcare itself is 30 years old or thereabouts, and there's 1 000s or at least hundreds of Landcare groups around Australia and has only 56 NRM groups. But the NRM groups administer the federal government budget towards natural resource management and the Landcare groups are state and regional based, rather than federal funded,

39:01

Cool, great. And then just in general, I mean, I know the first time I shared my writings with you, you commented, and you said, I can't see us in what you're writing about, which was fair. So, I really just want to check with you whether you feel like this is, is an accurate reflection of your story. Yeah,

39:30

it is. It is. It's still not like if it's all right, I can tease you, telling my daughter it's so funny, because I think I go and I talk to farmers and work with groups of them, but then you talk to an academic and they say, oh, you're co-designing and co-evolving - and they're just not words I'd use, yes, yeah. And, yeah, so, like, you know the parable about, it's an African one, I think, whereas if you ask the centipede, how do you do the dance, instead of just letting the centipede use 100 legs to dance, now they're thinking about, oh, which leg do I lived right? Yeah, so it's great to have someone describe it. I don't think it's foreign to me now, but it's still not comfortable as in. I don't I don't think I'll be using that language anytime.

40:37

Yeah, so I totally get that, because they're also, you know, you have your intuitive and deeply responsive and you have your own emotional intelligence, and, you know, mental intelligence, I mean, you guys are just brilliant in terms of the way you respond to people, scenarios, situations and, you know, how you continue to build things in a very uncertain environment. But I think that it's, it's fine for people like yourself, who kind of naturally lead in that kind of way. But I think for, I mean, for me, what was exciting was just allocating those kinds of words to what you were doing and what you are doing helps other people understand the complexity of what you're doing.

41:42

Yeah, that was really cool. I have to say that I did enjoy reading about it yesterday, although I was happy to tease you about the words and how big, long they are, yeah, it was nice to go, oh, look at that. Pretty fucking impressive!

42:03

Well, Rohan is having a day today. You know, Regen Digital hasn't hit the marl yet. And, you know, I was like, it's the fresh eyes perspective, man. We started this four or five years ago, when it was just like Ag and Environmental markets are going to converge, and how do you make that work? And we thought it was good enough to start Regen Digital then, with no knowledge. Now, all this has happened, and you've been able to articulate what's happened. I think the problem is you don't have fresh eyes anymore for what we're doing. Yeah, and, and if you did, you'd be like filled with the opportunities. So, I think it's good for us to say our

words or what we do worded in your language? Because now I'm like, oh, it's not a one off, like it's a repeatable kind of process.

43:14

So, the other thing I wanted to do in the Stellenbosch University, which is big agricultural territory in Stellenbosch. They have a Sustainability Institute, and they have a centre for transitions. And they often have talks where, you know, academics come and present stuff. So, I want to take this to CST at Stellenbosch University, and to the business school, and to share it in that environment. Because I think that now that I have a story to tell, I think it's going to be very interesting to share it in South Africa and to see how both the, you know, the universities in big agricultural settings respond to this. I mean, I could also share it with their Department of Agriculture as well. So, I think it'll be really interesting to get a response to it from another environment.

45:02

What is your timeline from here? So, you'll finish at the end of this month with the lodgment and Emmanuel. Is that the plan?

45:11

Yes. So, I need to get the papers published as well. So that's once I submit the dissertation, we'll focus on getting the papers published, so that will also be interesting to see what kind of response we get when we approach journals. The other thing that Emmanuel is quite excited about is the meta-innovation canvas that has emerged as a result of it. And so, there's an organization in Switzerland called Strategyzer, and they became very famous with the business model canvas and the value proposition innovation canvas. And I'm very keen, and so is Emmanuel, to connect with them around the meta-innovation canvas where of course, you're a major case study there. So, to approach them and say, can we work with you to build this into a process that people can participate in? So, it's multi actor innovation across sectors and across systems. And you know, that's where your intuition now translates into what other people can do practically.

46:32

Strategyzer - Emmanuel introduced us to them a couple of years ago, and that'd be perfect. I don't know there's more people wanting to do a startup and get rich in techland with a unicorn, like a business model canvas would have. But if Strategyzer want to say, you know, here's your template for changing the world. And here's a case study, yeah,

47:06

yeah. So, I think that's the potential. And then there's also a book in this, um, a book around meta-innovation. So those are all possibilities going forward, and I feel, I feel really excited about that. So, you know, thank you, Wardi. And I hope that in some ways, this also raises your you know, it contributes in some way to creating some international interest in what you're doing, because I think what you're doing is fascinating. Everywhere I go and I present like when I went to Paris last year to present the work, where it was last year, there was huge interest in it. It was, it was seen to be something really quite extraordinary and fascinating. And I know that a lot of people are lost in this complex, collaborative innovation space.

48:07

So, look, if, if you don't mind driving it, we're happy for you to talk about us till you get bored of it. Do you need anything like permissions and everything we've sorted so is there anything that might be helpful? Happy to give this.

Traprock Pilot Project Participant

So, maybe you can start by telling me a little bit about yourself and how you got involved in RFM. And I think you also obviously have a Carbon8 history as well. So, if you could connect all the dots for me...

Well, it's a funny story. It's not the usual way to get into environmental work.

00:32

But anyway, I'm intrigued

00:35

Yeah, so my history is I started work very young, and went into hospitality. So, I learned to be a chef. And it was all about, you know, caring for people through food. And then, as things went by, and I got older, and you know, as you do, I decided for a complete career change. So, I went back to university, and I became a registered nurse and thought I would care for people at the heart at the coalface. Yeah. So, I've done that now for about 15 years, and two or three years ago, well, 10 years ago, my husband and I bought our property and really wanted to reconnect with nature. And two or three years ago, I think it's probably more than that. Maybe four years ago, I decided I'd had enough of nursing and my body was breaking down and I just wanted to be outside on my farm all of the time. So, I started training myself in environmental aspects and permaculture particularly, and started a little business from home, teaching permaculture and doing work for other people. And that led me to Carbon8. Yes, during the drought. We had a horrific drought here in 2018/2019 followed up by the 2020 season of fires from hell. Yeah, so it was around that time I started working with Carbon8 and decided I would transition out of nursing completely. So, I've done that. And I now work completely as an agro ecologist. Yes. I'm still skilling myself up. I'm back at Uni again.

02:47

What wonderful stories of reinvention. Well done,

02:53

I just I feel like there's a common thread through the whole thing. And that is the caring capacity, like you care for people through food. You care for people through their health. And then the realisation that the planet really needed that care as well.

03:10

Yeah. And that you bring it all together food and health and, you know, yeah, take care. Yeah. Awesome. Yeah. What are you doing at Carbon8 now?

03:22

I'm the farm team manager at Carbon8, we work directly with farmers to help them transition to regenerative agriculture. So, we have a number of coaches that I look after, and I coach as well. And I love nothing more than getting out on the land with the farmers and digging into the soil and looking at what's going on and helping them to work through moving across from the conventional to regenerative. Because it's such a process. It's not something you can do and just go cold turkey. It takes time. So, yeah,

04:09

What would you say are key steps in that process are key.

04:15

Look, I think the biggest one is mindset, you know, for people to make a decision that they're going to regenerate. For whatever reason, whether it's from a health crisis, or a drought, or you know, a climate crisis, or whatever it is. There's usually one thing that has tipped them in that direction. And it usually is a crisis. And they see you know that suddenly they see things with a different set of eyes. But then it's very overwhelming for these farmers to work out how to do things differently and still remain profitable. So that's where we come in, we run a couple of programmes for the farmers, and we work on the strengths being in the community. So, we build a community of farmers with like mindsets and like goals, and work towards the regeneration on their properties, and within their businesses and within their lives.

05:37

How did the connection with RFM come about?

05:42

Um, so, Wardy has been a longtime friend of one of our founders. They actually knew his father. But when he was setting up RFM, there was a core group of people who were advising him and assisting him in working through the issues of, you know, the company structure and all of those sorts of things. And one of our founders was involved in that.

06:14

Who was that?

06:17

Helen McCosker. Yeah. So, as she's still involved, even today. So, when Wardy wanted to trial, a project idea, he asked Helen, if she knew of any groups that would be interested. And a friend of mine, Rick Humphries sort of was on the steering committee as well. And he sort of said, Oh, look, I know of a group who would be interested in doing something potentially. So, let's have a discussion. So, there was a meeting over the, the Tariqa wool shed that Helen and Wardy went to and my friend Rick and a couple of other people I know. And they, they talked about

what this project might look like. And then Rick, actually recommended me to work with them. And then Helen recommended me to work with them as well. So, it was just a natural progression. You know, I live in the area. So, I knew a lot of those farmers already. And, yeah, so it's been a bit of a learning curve.

07:47

Right. Is that the Traprock project? Yes. Yeah. Okay. So, I'm keen to know your, your perspective of that experience, what stood out for you as critical, challenging, surprising?

08:09

I think the critical component was getting the farmers to work together to see that there was an opportunity that they could individually profit from but collectively, for not just the region, but the landscape and the planet. So that was the critical mass. The challenges wow, there were so many, you know, working with a diverse group of people, everybody's got their own ideas about how things should be done. And that can be challenging at times. We had a broad group of stakeholders involved. So, keeping those stakeholders up to date and happy, was another area

09:08

Other than farmers, so they were stakeholders and not farmers, right, who were some of the stakeholders?

09:15

We had the local NRM, we call them in NRM's here, which is a, it's like a governing body that looks after the landscape. So, the local NRM here, looks after, oh 1.4 000 square kilometres of landscape. So, it's a very large area. And like the Traprock area's only 400 000 hectares, which is not to be sneezed at. That is still a significant parcel of land, but it's only one corner of that broader area? So, working with SQL, so southern Queensland landscapes, and the team over there, there was some initial challenges working out how we could work together. But then once we'd figured that out, it was very seamless. They were a great help and provided a lot of extra resources and research into various areas that we're looking at. Then understanding the way in which the farmers could interact with the government regulator, was another pinch point, I suppose. So yeah, those are the things that stand out.

10:57

Can I just ask you, sorry, sorry, again, then what would you say helps in those challenges?

11:06

The strength of the relationship on the working team was really good. Initially, it sort of weren't sure how things were going to go, because they're very, very different people. But as time went

by, those relationships became very strong. And I'm still working with some of those people now. Right.

11:44

So, what were the key points in the process? And what happened at those moments?

12:06

I think the first key point was helping farmers to understand that we didn't have the answers that we were trying to work the answers out as we were going through the whole process. So, they were hoping to, I guess, come along, have some sort of discussion and then have a transaction or an outcome predetermined. But that wasn't the process, the process was around, looking at all of the variables, and then saying, okay, what variables can we use? And which ones can't we use? Or how can we make our variables fit the regulation and the regulator's requirements. So that was the first step in thinking about, you know, how we interact with the core group of farmers. And then there was, I guess, the second process was providing them with enough knowledge in the short term, that they felt like they were getting something in return. I did an awful lot of work in terms of mapping their product, their properties, doing things like emissions calculations, writing reports, that sort of stuff, in the early days. So, there was a lot of work around that. And then taking that information and trying to collate it, so that we could come up with something that would work for everybody, was the second step. And that took longer than we anticipated. So, we got to a point where, you know, earlier this year, around March, we were thinking, you know, this is not going to work. But then we got over a speed bump with that. And it was all systems go between March and June with a core group of three farmers who were very interested to move forward. And so, there was again, a lot of work in understanding the regulations and preparing the documentation. Even just understanding the clearing cycles that the farmers had done over the years and proving that because of the regulations we were using, required that. Yeah. So, there was a lot of work backwards and forwards, looking at photographs and diary entries and invoices and things like that, just to try and understand, can we build this transaction. And then, once we got to that point, there was additional work going on with myself and one of my colleagues from Carbon8. Working through the legislation and the legislative requirements around the management practices. So, we actually wrote quite a detailed management plan for the farmers. And at every checkpoint, we're saying, is this something that the farmer is going to be happy with? Is this something that the farmer can achieve without incurring huge amounts of additional costs? So yeah, there was a lot of toing and froing backwards and forwards between the farmer representative on the management team, and, you know, academics. And, yeah, it was a lot of work.

16:25

It sounds intense. Sounds like a massive research project in itself.

16:33

Yeah, it really is. And, you know, I actually made a comment to Wardy the other day that that management plan that we wrote, is sitting there. And there's probably others. Well, there is others in universities around Australia, and, you know, researching and all that sort of stuff, doing similar work, then we could be sharing this with. Yeah,

16:58

It sounds like you are mapping out a model of how to do it or not to do it, or how to do it differently. It sounds like it's extremely valuable. Yeah,

17:08

yeah. And on top of that, there was an additional layer. So, we had Monash University Behavioural Science arm involved as well. And they were looking at the behavioural changes that were required to have farmers interact in this whole situation, and we're still waiting for that report. Right. So yeah, there's, there's a whole bunch of other stuff going on as well.

17:37

Yeah, so um, I don't want to interrupt because it sounds like the story is not over yet. You know, so you, you've done this enormous amount of research, you've mapped out landscapes. You established some "how to's" and "how not to". And all of this has been, I'd imagine, intense and required a lot and taken longer than usual. But now you have this framework, haven't you?

18:12

Yeah, yeah. For the Traprock we do. And in some respects, we also have a bit of a framework for other landscapes. So, the Traprock is still progressing. So, I'm still working with those people.

18:32

What stage are you at now?

18:35

So, at the moment, we're going back to the 14 or 15 farmers that we had involved in the project. And going back through, so that, that period of time from March to June, when I was working intensively with three farmers, we're now taking that process and applying it to the others.

19:01

Right.

19:04

And how open are they?

19:07

Oh, reasonably? Yeah. It's just getting started. So, I can't really tell yet.

19:14

Early days..., so if you had to look back on the Traprock experience, what would you do differently?

19:25

Oh, that's such a hard question. Because there were so many unknowns, right? So many unknowns.

For me personally, like I had very little knowledge of the framework that we were working in. So that was a huge learning curve for me. I had to learn all of that in a hurry. And I feel like I'm still learning that and refining it. What I was going to say before that question was, so I'm currently working with the other members of that Traprock group. But I'm also about to start a replica project in another area very close by with another group of farmers to do the same process again. Yes, yeah. To do the same process again, but it'll be under a different set of regulatory frameworks.

20:36

Okay, so some more learning.

20:39

Yes, definitely. Oh, well, just stop learning when you're dead.

20:47

Yeah, it's true. It's true. So, I'm fascinated, because I think what you are starting to produce here are specific blueprints? You know, if you talk about replication and scaling, this is important groundwork for that.

21:06

Yeah. So, the Traprock project, had a big vision. They wanted to link the landscape, so that endangered species had not corridors, but more stepping-stones throughout the landscape. And then over time, those stones would come closer together. So, from a biodiversity point of view, you know, we know that we have these island effects. And we have, you know, desertification, and all of these things going on in the landscape. And what these farmers have recognized is that they have key pockets of diversity, and they wanted to try and start to link them together. And that's really where my passion lies is in around biodiversity and the linkages in the landscape. I don't like the word corridors, because that gives a person a vision that actually is like straight lines. And so, I tend to use stepping-stones and linkages rather than corridors. But

it's very clear to us looking at the macro level of the landscape that these properties that we're working with are going to actually provide that linkage back to a national park.

22:46

Right. So larger landscape potential, right?

22:52

Yes, absolutely. And one of the things, one of the mapping experts from southern Queensland landscapes, actually identified very early on, was this area has the largest amount of privately owned threatened vegetation in Queensland.

23:18

That's important.

23:19

So, it's really, really important and the, you know, not just the vegetation, but the whole ecosystem of the species and everything else. That I think we mapped out 169 threatened species in those landscapes, You know, threatened or of concern.

23:47

So, this particular skill that you brought to the Traprock projects and now bringing to other times, potentially into the future into larger landscape projects, this particular skill that you bring first of all, are other people learning from you? Because again, it's like it seems like for RFM to scale up and to replicate and work on multiple projects across Australia would need many like you. So, what what's happening around kind of developing this critical skill?

24:37

Carbon8 is a national charity. Right, so we have a national reach. We are currently actually looking for another me. Yeah. Yeah, but this skill sets quite diverse and the ability to see into the landscape, it's something that not a lot of people have. So, I've actually interviewed kids coming out of Uni with their first Environmental Science degree, and gone, no, you're not quite there. You need a little more maturity under your belt, you know, not being a critic, but, you know, they need some more maturity and a different set of eyes. And being able to read the landscape is really, really important. And that's a skill that takes years to learn. You know, it's not something you can just go, oh, yeah, I can go and do a course and learn that. You know, I'm still learning. I've spent a week with an ecologist who focuses on pasture recently, and, you know, I rang her when I got home afterwards. and I just said to her, thank you so much for taking the time, and opening my eyes even further. Because there were things I learned that, you know, she was showing me that I had not seen in the landscape, even though I was looking at it every day. So, it's really important to keep that learning going. And I think it's very

unfortunate that, you know, young people go to university, they learn their trade, and they think that they can just stop there. Yeah.

26:50

It sounds like the field work is the most significant work.

26:55

Definitely, definitely.

26:59

And the skill in the field work. I mean, I've heard that Christoph are playing the big role in the Traprock.

27:06

Yes, sir. Christophe was literally - he became my mentor during that process. He has some amazing knowledge around the regulatory framework. And some skills in you know, looking at nature as well. But from my point of view, I needed him to help me with the regulation. Right. And understanding that and how to apply it. So, and I still talk to Christoph almost every day.

27:44

He's a lovely man. Yeah, he is a gem. Have you met him?

27:50

I interviewed him on Friday. And just love the conversation. I could have spoken to him for another two hours. Yeah, Kym it sounds like Carbon8 are almost like a capacity arm to RFM. Is that right?

28:12

Yeah, we very much are

28:16

Is that a formalised in any way or is that just an informal understanding?

28:22

There was a formal agreement in terms of a memorandum of understanding or MOU for a little while, but we sort of just kind of let that fall by the wayside or just talk about the projects and make decisions where they need to be made. It's very organic.

28:44

Right? Are there any other similar kinds of relationships that you're aware of with RFM? Where, you know, people have stepped in with a particular skill to deliver to a particular requirement at particular time?

28:58

Oh, yeah, yeah. So um, Danny Pettigrew is another of the RFM advisors from Victoria, you should probably talk to him. He has a particular skill set around land, land restoration and using drones. Very good with the GIS mapping and all that sort of thing. And just the work he's doing with the drones is amazing.

29:34

I definitely will speak to him. Anybody else is likely to enrol. Um, you'd have to check with Wardy, but I think Kristin van Exeter has also been a very pivotal person in the development of RFM. Right.

29:56

How do you understand her role that development role?

30:00

Not really sure what that role is, I think there's been some advisory work. She has a very specific skill set, which I'm not 100% clear on. But she certainly pops up at opportune moments.

30:24

If you had to, you know, look to the future, particularly with the work that you're doing, so in your context of RFM, what do you think are next steps and, and new potential or potential to consolidate? So, you know, next step potential to consolidate, new potential? How are you seeing this?

30:48

I think, next steps for RFM are really to solidify their product in the marketplace, they're still a startup, there's still a startup phase is still trying to understand what they're bringing to the market, and how they interact with it. So, I think that's probably the next piece of critical work that they need to do. But I think their future is very bright. And it's interesting to me, because when I first started hearing about what they were planning to do, I was very sceptical. And then as I've gotten to know, Wardy and Rohan, and seeing how things have developed and improved over the last 12 months, I'm very confident that their overall vision is a sound one. I think they've got huge potential to work with a lot of very interesting organizations, not just farmers.

32:11

Who would you say those organisations are?

32:14

Oh, supply chains, basically. And I know that I'm not sure how much they've told you. But I know they are involved in a couple of other research projects, from various different areas of the supply chain. But the core tenant that they keep coming back to is that you can't be

regenerative if you're not making an environmental profit, as well as an economic profit. And I think that's very sound.

33:01

You say the future is bright, what do you think is going for them? What is supporting their view of a successful future?

33:11

I think the fact that they are looking to work with groups as opposed to individuals. You know, there's a lot of businesses out there wanting to sell you a mat, or a product, or whatever it is. But RFM is a little bit different, in that, yes, they have got a product, but that product is centred around communities, and it's centred around the groups. So, it's very farmer-focused. And that's quite unique.

33:56

Next steps, you said clarify offering, expand to supply chain? Anything else? Yeah. Um,

34:10

I think, at the moment, they're relying on funding models to support the work they're doing. And that's always inherently dangerous. You know, because the funding dries up and all of a sudden you don't have a business anymore. So, I think they really need to think about how they're going to fund these programmes into the future. I don't think they can continue to rely on government money. But, yeah, I mean, that's for them to work out. I'm not involved in the financials on the business.

35:35

I want to ask you a question? Is this research you're doing specifically about RFM? Or is there a broader project here?

35:45

So, I'm intrigued. The focus, the starting focus is RFM. Because I see them as entrepreneurially driven emergent ecosystems. So, I look at Regen Mutual, but then you also have Regen Digital, you have Regen Trading and Funds, you have the Traprock Project, which is the transactional aspects of the value proposition. So, you know, I think this is a fascinating example of an entrepreneur crafted ecosystem model. Which is taking place. So, it's still early days

36:36

Yeah. In your I'm interested in your research thesis, what is it your research? Yeah.

36:47

So um, what I'm interested to determine or understand is how innovation ecosystems emerge and evolve around a bigger vision. In this case, it's about regenerative economy isn't. It's where

the farmers are central to the reason for existence. Yeah, so I'm, I'm keen to understand what the dynamics at play are. And this is an entrepreneurial example of two entrepreneurs that drive, over time, the formation of an innovation ecosystem, which brings a transformative value proposition into existence, and how they, how they managed to do that, you know, what are the skills? What are the relationships? What are the particular roles of particular individuals at particular points in time, as you know, people come and go, organizations enter, and connect and provide capacity like Carbon8, for example. You know, there are lots of examples like that, where Wardy is really a terrific system, orchestrator you know, he identifies networks pulls in, you know, he's very compelling. So, he's a key energy,

38:27

Oh, definitely 100% and

38:31

consolidating, you know, the emergence of an ecosystem in an environmental high uncertainty, high fluidity and a high level of change, you know, and that's, that's only getting increasingly complex over the next few years.

38:56

I think, the, the critical factor for me, is that, you know, Australians are very different to a lot of other cultures in the world. And that's simply because we're a young country. We're not as old as some of the others around. So, being the melting pot of immigration that Australia is, there's been this culture that's developed. And, you know, the Australian farmer is a very close knit, not very culturally diverse, but very conservative group of people who really take a lot of pride in what they do. And so, from the perspective of RFM, Wardy says it to us constantly. And or he said it in my presence constantly, that farmers will not trust anyone, unless they can see the whites of your eye.

40:18

Right? Yeah.

40:19

So, you need to be upfront, and you need to be personal, you need to build relationships, and you need to show up and be honest and open. And all of those things. And he recognizes that, I think that's a key component to the success of RFM, that he's prepared to get in the car and drive 2000 kilometres or get on a plane and fly to the other side of the country. We're a big country. And distance is a big issue here. And once you get out into the farming areas, you know, the health of farmers is affected by the fact that there's not a close town, that it might take them six hours to go and buy groceries. You know there's huge distances involved. But

that doesn't seem to stop Wardy, he's quite happy to do the hard yards, as we would say here. Yeah. So, I think that that's had a lot to do with the personality behind RFM. Rohan is a completely different person. He's a lovely person, don't get me wrong. Rohan's personality is built around the banking and the finance and the nitty gritty. Whereas Wardy's personality is built around people.

42:17

Okay, so, Kym, what else can you tell me that you think is important for me to know, now that you understand what I'm trying to discover?

42:30

Yeah, um, I'm not sure I do understand. But I have a minor, a little bit more information than I had going in.

42:39

Yeah. Let me let me just trying to explain properly. So, you know, innovation in the past has normally been driven by a company or an organization. You know, they go and set out to bring a new product into the world or a new service into the world. But the Apple iPhone is probably a good example of an ecosystem-oriented innovation, where the phone becomes the platform to multiple services. So, it's not just a phone anymore, it becomes a life aid that we can't do without, because of all the services jam packed into it. So, the value proposition it offers is beyond anything, we've imagined a phone to be in the past. It's been quite transformative in terms of how we love and interact and grow and create some connects in the world. It's, you know, it's been that very transformative innovation. But it came about because multiple players came together. You know, it's a product co-created by multiple players in the marketplace. So, you know, what Wardy and Rohan are trying to do needs an ecosystem to deliver to it because it is radically transforming not just farming, but you know, the value that the land generates, which is, you know, built into, into the food that we eat and the supply chains and the financial system..

44:33

thoroughly agree with that. But yeah,

44:36

no, tell me what you think.

44:39

I don't necessarily agree with that last comment you made because I think what Wardy and Rohan set out to do and whether that's changed, I don't know. But what they set out to do was to make carbon farming and carbon credits accessible to smaller farmers. Yeah. And the

regeneration component is definitely there. But I don't I don't see the link back to regenerative health. And, you know, repairing.

45:24

I hear what you are saying...

45:27

I think the reason that Carbon8 and RFM are aligned, is because we see the same things that Carbon8 remit is we want to heal the heart of the food chain. And that starts with farmers, we want to remove chemicals from the food chain, we want to make sure people become healthy, because of the food they're eating. And that starts with farmers. And Carbon8 believes very strongly and making sure farmers are rewarded for the work they do. That, you know, the farmers are not forced to do this work without reward. But I think the key difference between Carbon8 and RFM is that RFM is looking to find another reward pathway yet for the farmer to keep that regenerative work going. But I don't believe that they're intrinsically feeling that they need to repair the food chain

46:41

Yes, I agree with you

46:45

suppliers, yeah. And then see opportunities, but don't feel that they're in the same space. If that makes,

46:53

You know, you're much better at articulating the model because what RFM are doing it then the in what RF M are doing is they need people like Carbon8 You know, you're Yeah, one of the contributors to what I'm saying is this ecosystem model. So, you know, you you're providing part of the solution, but there's also a trading aspect. That is correct. That supply chain aspect, you can deliver to part of it. So, what RFM need is the are these partnerships that make up an ecosystem solution that allows the farmer to reap the full benefits of what you're doing. So that is that the ecosystem model I'm seeing emerge here is RFM are spearheading it. But it means a number of key contributors to bring specific products and services that model is you know, what I'm seeing is emerging. Yeah,

48:02

there's another organization that you might like to talk to. In terms of this ecosystem model. They are a lot younger than RFM. They're only just getting started. And they're very big plans. So I'm going to, I'll send you a link on email.

48:53

Yeah. Yeah, I need to do that. I'll send you a link on email to Helen's husband, Mike. Yeah, there are other organizations called Fresh Earth. Yes. And he's spearheading that. And that is an ecosystem. Okay.

49:16

Kim, thank you so much for your time and your contribution. It has been so valuable. A pleasure. Thank you for your patience with me in terms of trying to explain what I'm doing.

49:27

No, thank you for your patience with me because like being on the mobile phone instead of the computer has been a bit more challenging.

49:35

Yes, yes.

49:37

But all good. And as I progress, I may just want to check in with you much later down the track if I need to just get you to say you know whether I'm on the right track or not.

49:51

Absolutely. And I would love to see your final piece of research once you publish it.

49:58

Awesome. Thank you and What are you studying at uni again to remind me, oh, look, I've

50:04

gone back to university to just formalise the environmental qualification. Yes. Yes, I'm doing a post grad in environmental science.

50:17

Fantastic. Is it by dissertation or is it coursework?

50:21

It's coursework at the moment. So that's the first part. The second part will be by dissertation. Yeah.

50:29

Oh, fantastic. I'm sure you're going to love it.

Leader and founder of Landscape Finance Lab

Well, how long have you been in Vienna?

00:20

Oh, I think it's been 16 years now

01:18

Yeah, thank you. Okay. So maybe just to start with a little bit of your background and how you became involved with RFM? Or, you know, started working with them?

01:30

Yeah. So, the lab was included in a proposal from Landcare Victoria to an Australian funder. I'm trying to remember exactly how it was that we connected to them. And they knew about us. I think there was a woman in World Vision in Melbourne, this has worked since we began, I think it might have been her doing but I'm not exactly sure how it came about. Yeah, we got included in this proposal, and RFM was in it as well. It's taking a long time to get started. But what it has done, is that it has given us a chance to learn about each other. We realised were two sides of the same coin. They're working with farmers to the landscape scale, we're working with Allstate, they call this from the landscape scale down. And they need the landscape details. We need the individuals on the ground and the delivery mechanism to get to them. It made very good sense to immediately say where else we could work together. In addition to this Victoria projects that we've been looking at, we are bringing in some of our other projects. In Brisbane, for instance, there's a new project developing and some common work that we're doing with the World Economic Forum and on biodiversity credits policy and they're looking to bring us even on the land, rivers, New South Wales programme and so on.

03:38

It sounds like they were multiple projects, but were they connected in any way?

03:48

No, our one's by Landcare Queensland and their one's by the farmer with a carbon biodiversity theme

04:02

Yeah, what we want to work on is a landscape scale for a carbon biodiversity delivery system.

04:10

So how did the relationship with RFM then start with landscapes?

04:17

how to start to benefit

04:20

or develop how did it start to develop? What was the initiation and the stages in your collaboration with RFM?

04:29

It went pretty quickly. We signed an agreement. We started looking at projects together, we started to bring them in the theory anyway, into this Brisbane programme....

05:45

Okay, so we were just talking about how it started, progressed, and the key developments in that process?

05:55

I mean, we've only known each other for less than a year. So, there's, there's not any more developments than that I have to say. They invited me to the conference, and with Kate to give the first address. It was good fun.

06:17

Yes. Were you involved in Traprock?

06:25

No, the next day I joined the Traprock evaluation which was very interesting to understand what they're doing and how it's progressing.

06:40

Right? And what were your insights from that workshop?

06:46

I think it's good. The certain landscape approach can help accelerate it. A very good engagement. But it's still a small group of farmers. So how to take it to a wider level. And, the landscape approach will help create a common story, common narrative that would support that and bring other players in. It's clearly quite costly to do the carbon assessments and take some time. So, speeding that up is going to be important. But a really impressive process. They've really worked out very carefully how they do that. Yeah, and rolling that out, across other parts of Australia is now the challenge.

07:44

How would you describe a landscape approach?

07:48

Well, I'll send you our report later called the four returns framework. And the link to a larger book, we wrote - The Little Sustainable Landscape Book. But in essence, it's bringing people together to solve a common problem in a landscape and finding ways to address that with mutual benefit for environment, society, and the economy.

08:21

Great. I did download that actually, after your talk. I just haven't dived into it yet. Yeah, well, definitely take a look. So, what is the road forward with you and RFM? Has anything been mapped up?

08:43

Yeah, we've got a full work plan on in Victoria. Four landscapes will be identified. And then we'll get in and work with them to see what the potential is and develop farm level and landscape-level programmes, but we won't have a big role in the programme. We are just training the Landcare teams on how to do that. It's not a full engagement, like we would have in other landscapes. I think RFM has more resources to do a more detailed programme. Then as time goes on, we'll bring RFM into the Brisbane programme which we're now developing.

09:41

Can you tell me more about that?

09:42

Yeah, it's, it's very big. It's to help to address flooding in the Brisbane River, which costs 7.8 billion Australian dollars last year in damages. All of the solutions over the last 20 years have been engineering, reactive to concrete and reconstructing the buildings and so on, and dams and so on. Almost nothing from a nature-based solutions point of view, which is silly because the science shows that if you repair riverside streams and replant, hillsides streams, you slow down the water flow during flood and soak up the water. So that the highs and lows are less, so it's good for drought and floods. And there's already been some really excellent work mapping both river and hillside forests, koala forests particularly. So, there's a target to restore 6 000 kilometres of, of River Forest. And about 110 000 I think it is hectares of koala forest. That's going to be very costly. But it looks like there's people willing to pay for that. There are already some agencies who are paying for this. And we want to gather more and, and make the whole thing, a marketable programme that would be linked to the Olympics in 2032 that are coming to Brisbane.

11:37

Who are the key players in this regenerative transformation?

11:42

Well, we've just formed - a primary partner is Healthy Land and Waters in Brisbane. They're in charge of monitoring the health of the Brisbane River catchment. We've formed a steering committee now of three levels of government, federal, state and 11 councils, some of the power, water and other utilities, an insurance company that's going to bring in other insurance

companies, and we're talking about a few others. So, we had our first steering committee, just after the RFM conference. We are now going into detail design of this programme. So, one of the other solutions, in addition to planting forests is regenerative agriculture, restoring nature on agricultural lands, and doing better agricultural practices, which we're hoping RFM will be the delivery agent.

13:11

So why I asked that question is, is obviously, you know, my focus is on understanding how ecosystems or an ecosystem model of delivery and change, emerges around a big idea or an emerging concept. So why I was really interested in speaking to you is because you must be seeing a lot of these at scale kind of projects that emerge around a big idea or a big problem or crisis to solve. And I think what I'm keen in getting to see from your understanding, is possibly what that kind of ecosystem model looks like, you know, and how that starts coming about, you know, how they coalesce, you know, their process of coalescence around the problem, and the solution, and the parties that play and how that starts coming about. I mean, I know it's early days, it sounds like it's early days, in terms of your RFM experience and the Brisbane experience. But do you have any early understandings or insights around that process?

14:46

Well, that's exactly a thesis with landscapes, that landscapes will only work if you're solving a core problem to society, you're bringing people together around that problem, you're going to sufficient people together. And you've got a well-defined solution, and financing available for that. In addition to the, to the four returns framework report, there's this report, which we developed with about 30 other organizations, which goes into a bit more detail on the methodology or developing landscape programmes. We've taken it a fair bit further since then. So, we need to produce another version of that. But that will give you a sense of, of how we think it's done to address that, that sort of problem in a landscape and bring things people together and generate action and investment. That report doesn't go into the investment side, that's very much what we focus on, as well. But I think it gives you a sense of the methodology that we're developing now. And it seems to work when we land in a landscape, where we're now pretty well able to test whether there's a chance for igniting change. And if there is, then providing people with the tools to make that happen. Of course, they'll have their own insights and ways of doing things and so on. So, they don't have to follow our methodologies. And we learned from every landscape. But basically, the basic approach seems to work fairly well. In most landscapes, most types of landscapes as well, it's not just forests, or rivers. It will work in mountains and coastlines, and peat lands and so on.

17:17

Yeah, it is a big landscape project, who, who are kind of the common key players come together

17:31

The initial players are the most important. And that can be anyone, you know, they can be a council, a company, a church, an NGO... it doesn't really matter, so long as they are motivated to change. But then it's about getting a nice mix of different sectors, government, corporate, community, research, and multiple levels, because landscapes have to be able to operate at multiple levels. And that's what we've done with Brisbane is what we've done with all of the other landscapes we're working on. And very much creating an ecosystem

18:22

that process of engagement, what, what is key in that

18:30

For us, it's two simple things, doing the mapping, and working out who are the priority stakeholders, and then going and talking to them. If, if you have the right problem, you'll engage them. If you if you don't, in Brisbane, it's fairly easy, it's the flooding. But it could have been many other things. It could have been drought, it could have been koala habitat, it could have been the filtration, the eutrophication of Moreton Bay. But what we saw there were many, many problems that were looked at. But it was pretty clear that the flooding was the one that brought everyone together. And so, once you clear on that, then it's about looking at what the solutions are and simplifying down to a few things that everyone can get behind. And that's something that stakeholders themselves need to do primarily,

19:55

Again, just come back to this ecosystem model because what really struck me and it never struck me before because, I looked at RFM and kind of how it's, it's evolved like from the mutual to Regen Digital, which is focused on mapping, then the Regen funding and trading part of it, and then the Traprock landscape project. So, they, they felt like they were all what I call like artefacts around which, you know, the innovation was starting to expand and kind of link one aspect of what is required to another aspect. So, they felt like stepping-stone in terms of how they were building things up. And, and then when I came to the conference and attended the workshop, I was suddenly struck by how explosive the space is and how big it is, and how complex it is, but also how urgent it is. And then, when we looked at Traprock, as an example, it was like, you could see that, that there is an ecosystem model that is required to kind of really, I think the conversation was around scaling this up. So RFM had, you know, for me already created the framework of their ecosystem. And, you know, I can see that there are multiple

stakeholders already contributing to the success of that being fairly robust. You know, but I sense, this urgency to scale up, urgency to scale up. And I was wondering if, you know, once said, instead of building business models, one, what would an ecosystem model look like, like, one that was easy to identify and see, and one where each of the contributors in the ecosystem had a clear and defined role to play and the whole ecosystem was geared at scaling up and playing a very specific role in that process. And so, you know, that is where I landed on, I thought I was curious about if one looked at the problem through an ecosystem model lens. So just like a business model, if you said, okay, we going to address this as a consolidated ecosystem model, what would that look like? I don't know, if you have any thoughts on that?

23:04

I think that makes a lot of sense. I mean, just doing a business canvas is about thinking about the ecosystem that you need to create for your business, or all the right, right pieces. But what they're doing is going a bit, a bit beyond that. And yes, and looking at how to solve a societal problem, while also building a business ecosystem. So, it's a social it's more than a social enterprise. It's a social endeavour to solve a major problem, using usable business tools, but other tools as well. It was a pretty impressive list of people that conference, from very diverse worlds. They have done very well in and getting them all excited. And clearly, they all have some role in the system already. So, you know, I don't know how they do that was just two people. They are magicians. They are just 2 people. We've got 25. Well, we're literally we're trying to do the same thing in multiple places. But I think I think we can learn a lot from them in terms of, you know, the efficiency of creating that that sort of change system.

24:41

Yes, for me, what struck me was, I've been thinking about like, how do that how do two people start, you know, act as architects, and that's very fluid, large scale context. And, I was watching them and thinking, maybe there's a skill here that is there, because it's so fluid, you know, I have this word that I really like, one I've made up, it's in-fluency. I think Wardy is particularly good at this, is when something emerges in a space, he works with that on the people immediately, you know, so he has this in-fluency skill, you know, like he is so adept at picking up the opportunity in the moment and taking it forward and the people with him. So, I think that and this co-development idea that's learning into a future, are both two very particular skills I see at work, particularly with Wardy, I think he's quite unique like that.

26:05

Yeah, it's not that that's not a standard business approach. The smartest businesses in the world are talking like that, but very few of them act like that. He has got an innate understanding of

how to run a learning system with a whole lot of people and get results from it. And I think, Rohan is a great compliment, because having come from a finance world, he's all about structure. So, he can help put the structure behind that, to make it last. The big challenge they've got is that it's just them at the moment, you know, with a lot of others, other volunteers, but they now have to stop doing it themselves and start handing a lot of this stuff and the inspirational roll off to others for it to scale. And they certainly in that process, we've talked to them about that. So how can I grow this system so that it's resilient? And keep on inspiring that sort of ecosystem action. But like, like, metaphor, that makes sense. "Influency" is getting there, there's something else in there as well. He is an orchestrator. He is a systems orchestrator and "influency" works quite well.

27:53

If I look at the only two case studies I've seen, I've focused up until now been on disruptive innovation. I've just finished a paper now where there are two case studies that point to what I call meta disruptive ecosystem. What they do is they organise, so it's multiple organizations, organising around what I call a higher-order concept or a vision, or a collective value proposition to bring about large-scale societal transformation, the one with around mobility-as-a-service. And that's involved. It was a Finnish case study, which involved multiple government departments, multiple businesses that are in the transport game. And then collectively, in organising around this idea, they also invested in entrepreneurial startups that were necessary to plug what this bigger idea required. The other example was Shanghai as a sustainable city, but also focused on mobility, sustainable mobility and collective consumption, collaborative consumption, and so again, the same kind of combination of players, again also investment and entrepreneurial startups that required some supplier new services in the ecosystem. But it was a conscious playing of combining collective value propositions to deliver to this higher-order proposition or solution. So, you know, I see RFM kind of being its own startup facilitator, and I can see that, you know, the involvement of state, to some extent. But it's not consolidated yet. You know, so I'm interested to see how this matures into something, as you say, like, this meta ecosystem, you know, where, where there's a growing awareness and consolidation of understanding around the particular roles each of these stakeholders play and their parts of the value proposition they deliver to. So, I, you know, I'm also wondering if at any stage, there's value in kind of running a workshop, where, you know, one of these stakeholders will say, how do you together envisage your participation in something larger than yourself to which you, make a very specific contribution. So that does this consciousness around this bigger thing that everybody is collectively building? Wardy is the key orchestrator.

Whether that helps a bit, you know, whether that changes the game would show? What are your thoughts on that?

31:41

I think it does, I think again, you've got the language, right. Because what they're doing - they want to do multiple Traprocks. Just doing one track is very complex. But to do that, in 100 landscapes across Australia, which is their ambition, and to go globally, which is our joint ambition is not easy at all, but it requires that sort of meta thinking. What are the common principles that you're going to fly across each of these landscapes? How do you get them learning from each other? How do you reduced the role of the centre and maximise the network effect? Yeah. It's, it's definitely another way of thinking about it. If you think of the spider and the starfish, it's very starfish. But still early days, you have to be proven. So, it's worth looking at the impact hub as well, which is, uh, funnily enough of Vienna based organization. They have 100 ecosystems for startup around the world. They're sort of co-working spaces on one side of it, but they're also doing metrics or impact, collective impact among entrepreneurs, they're doing investment platforms. Right, I'm working with government and corporate governance - they are very lean and thinking I've learned a lot from being widely recommended.

33:56

Yeah, it sounds like a group to have in the room. Because I think that there is a there is an entrepreneurial development aspect to, you know, what is being created or what is intended to be created. And to have an understanding of that early on and to nurture and develop kind of, you know, the emergence of that kind of resource or skill capability, I think would be useful. Yeah,

34:28

definitely. That's where Wardy comes from

34:39

Yes. So, I don't know if there's anything else but I, this has been, you know, so good for me just to, you know, be able to hear your experience and to be able to like just to throw out one or two ideas. You know, I'm keeping my mind open, you know, obviously, because I'm here to learn and to see. But, yes, I think if maybe we just stay in touch, I'd be really curious to know from your experience with them when kind of this meta thing starts showing up and to pay attention to it.

35:27

Oh, it's already started It's in our cooperation agreement there MOU is certainly an ambition to help co-evolve. We will use the Victorian programme to do that initially. Very happy to stay in touch Shereen and sounds like you're creating a new language for us all, which is super useful. Super useful. Sounds very nerdy, but it's not I know, it's very powerful.

Farmer and Members Council

Wardy was very helpful in the beginning by identifying key people who would have something valuable to say, and you were one of them, and Jacqueline confirmed that too. So just a little bit of background with regards to my research is that I'm examining how innovation ecosystems can emerge around a bigger regenerative idea that I think RFM holds in their existence. So, they become an important point of focus in my study, to see how this might occur in terms of what they're trying to do. I don't know if that makes sense.

01:01

yeah, I think for the most part, that makes sense. Yeah.

01:05

Okay, so it's really just a very informal chat and to collect your experience over the past few years. So, I think let's just start by maybe telling me a little bit about yourself and how you got to be involved with RFM.

01:28

Okay, so I'm a vet by training. And I've always been involved in a few climate action groups over the years. One in particular, was Vets for Climate Action. So that was kind of a grassroots organization that started here in Australia, for vets who are concerned about climate change. And at the same time, I kind of, in parallel to that I've been working towards getting my own property, which I did three years ago. And doing a permaculture course. And essentially, I've always been interested in, you know, regenerative agriculture, and permaculture and that sort of thing. So, I've got 25 acres, it's not a big place, but just enough to grow some fruit and veggies and sort of doing the whole permaculture thing, but I guess I have a lot of bush and native bush around me. So, I am yeah, I'm quite keen to say that developing, get rid of weeds and encourage wildlife. And there's plenty of wildlife. So that's good. So, it's a combination of interests for me, I suppose. And then, after being in Vets for Climate Action for a couple of years, volunteering, I came across Wardy and we started chatting. And this was in the early days of his idea. I thought that was fantastic. The fact that, you know, he was thinking about getting farmers who, you know, there's a lot of private landholders in Australia, probably similar to South Africa, I guess, that those people who have a lot of private land could actually do something themselves to offset carbon. And it's actually grown from that too. So, it's not it is not just about carbon emission, you know, offsetting carbon and capturing carbon, it's also about now biodiversity and, and all that all these things are intertwined and all go together anyway. So, for me, it was it was a pretty easy decision to get involved, because it seemed to

be a combination of all the things that I was interested in. Yeah. So that's how that's how it started.

03:37

Yeah. Okay. And you're on the steering committee?

03:41

Yeah. So, we started with the steering committee. I think I started as just a member. And then I think then the steering committee, and I think it was about two years of the steering committee. And now we're in a sort of an interim members, I don't know what you call it. He's got a name for it. It's not a steering committee anymore. But it's like a members, sort of like an advice group, I suppose.

04:08

I think it's progressing towards a members group. In the steering committee, we had about maybe 10 or 12. But people came in and out of it. And we've probably still got 10 or 12 but there's a few different people have come and gone. So, we meet every two weeks and discuss any issues Rohan and Wardy, basically running the mutual. They're basically driving all the things that are happening, and were sort of keeping informed every couple of weeks and we'll give our thoughts and advice when they need it and when they want it.

04:58

Right over that time period, what would you say have been the key developments? What have been the landmark steps forward for RFM? It sounds like you've been there right from the start. So, it's useful to see how you would describe those key landmark developments.

05:18

Yeah, it's been quite a, quite a journey, actually. Because things have changed enormously. And it's been very organic in its growth, and I suppose because Rohan and Wardy are the kind of people that they've pushed in a whole lot of different directions at once and when they get somewhere, they'll keep pushing in that direction. So, I don't know that I'm the best person to ask about the milestones. But essentially, the last few years have really been trying to keep afloat enough to get all of the digital platform sorted out, which they've now done. So, I guess that is a milestone. Because I went from nothing to now having a whole lot of open-source software, software and platforms, to capture the data, because a lot of this is about data, you know, being able to measure what you currently have and in terms of trees and paddocks and creeks and riparian area and lots of stuff. And then moving forward, if you do go into planting trees for offsetting, you know, what, how much of an area will you be doing lots of things. So, I think the big thing is, is the digital platform that's now up and running to the point where, for

example, I had my farm done in through the digital platform. And basically, although it's small, it's too small to be part of part of this. Yes, it at least, I could see exactly how they were doing. It is fantastic. And they're using a number of different sets of information, you know, satellite photo pictures and data from government and NASA and all sorts of things to get the data that you need for your particular farm. And so that whole digital technology has been quite a journey, I think, but a lot of it was already open source. And they've used that, and they've manipulated it and worked to what they need. So that's been, I suppose the biggest thing that they've done. And then offering that to member farmers to use so they can get their baseline data is where they've started. I think the problem has been trying to get members, you can't really get members, we're like we've got, I think he's got maybe 100 members or something. But you can't get members until you got money to advertise. And people know that you exist, and you can't get money until you've got members, it's a bit of a circle. So, they've concentrated instead on a couple of key areas in Australia, because at one stage we were trying to look at the whole of Australia has its very peak, but a lot of types of environments. So very ambitious. Yeah, they've now concentrated on a couple of key areas where they've got some real traction with locals who are joined together. So, their properties are essentially in one big area. And then they've been working with them. And now they've got some grants to actually work on those areas. So, I think those are probably the big milestones.

08:24

Okay, so I'd like to explore those two. The first is if we can just go back to Regen Digital. So, the platform is up, and it seems to be offering value. What kind of capability is linked to that within RFM? Because I'm sure it doesn't just sit alone on a system somewhere, they're people that go off and do certain things.

08:50

Yeah, so that's the data capture side. Then you're obviously going to have to have capturing, you know, your soil carbon and your tree carbon on the ground, in the field. They have had some landscape agronomists who have joined and are doing that on farms, but it's at the moment, that's not very mature, because, you know, they need money to pay them. And at the moment, they did just in those early stages, so I think it's been done in those in those key projects. Not across the board. Yeah.

09:26

Okay. So those key projects is Traprock one of them and then other projects that have come on?

09:33

Yeah, and then yeah, Western Murray. So down in southern New South Wales in the Murray River, and there's a couple of others. I just haven't got the names in front of me, but you can check with Wardy, he'll give you the names. I think there are four. But Traprock would be the most advanced in terms of how far along it's going.

09:53

Right. In terms of the development to date, it looks like there has been a lot of support and involvement from the Landcare groups, NRM, Carbon8, as an organization seems to have stepped in and provided some capability. How would you describe the surrounding support organizations and people and the skill that they've brought to where RFM is right now?

10:26

Yeah, well, I mean, the whole thing is really is really dependent on those external groups, and some of them have been fantastic and put in a lot of time and effort. And, and again, some have come and gone. But yeah, there's been quite a lot of support from those, those groups, different groups. I mean, there's lots of different ones that I know that Wardy and Rohan have, every month, they have, you know, 15 meetings, you know, they might have three or four or five a week. So, they, they've certainly pushed into just about every possible area, you could imagine, any sort of related field or anyone who's either in the bush or related to carbon or related to regenerative agriculture or related just to Landcare. In general. Yeah, that's certainly pushed pretty hard. And, and there's been some really good support. But at the moment, mostly support is volunteer, you know, it's not, it's not paid.

11:35

So, I can see that, you know, there's a lot of visibility around the regenerative focus of RFM. I'm also keen to see because obviously RFM needs a market, you know, needs buyers. So, you know, I see that there's a lot of focus on creating products to take to market. What have you seen in terms of developments around building the markets or opening the way to the markets?

12:08

Well, I think that the markets is, well, from what I can gather the market, the buyers going to be there, and I don't think that's going to be an issue. And partly because the Australian Government is setting up their own system. So, I don't think they've ever thought that was really a problem getting buys. This is a lot of companies who need to offset a lot of carbon in the next sort of five to 10 years. Prior to them, reducing emissions overall. A lot of that's probably done through Rohan, and he, he's got a lot of contacts in those areas. But I don't know that that's probably not the best person to ask on that one, to be honest. Okay. It probably will

be better to ask Rohan. Because I know they have had various meetings and lots of different people.

13:03

Right. So given where they're at, and it sounds like it's at a really pivotal and very exciting and interesting moments, you know, with these projects taking shape, and with Regen Digital now being in place and having the capacity that's required. Um, what do you think is required next? And who would be important in kind of that next shift in development?

13:32

Yeah, well, well, I think the one of the things was like they were trying to get McDonald's on board because things have morphed over time. And then now they're thinking it's important, more important. At first, it was more important to, you know, just get enough people to offset carbon. Now, it's more about the provenance of the product that you buy. So, if you're buying beef, you know, you can actually go back and say, Yes, we know that, that that's a carbon neutral beef, or that it's not contributing any further to emissions. And so, they've, they've done a lot more work in that space in recent times. And so, I think they've had some success with McDonald's. I'm not quite sure exactly where it's at. But I think they've made some progress there.

14:11

Is I think they have a project with the Australian Farmers Institute. Yeah, that's got the approval as one, I believe.

14:20

Yeah, that's right. So, I think that's a big thing. Because if you can get, in my mind, at least they need to have a couple of example ones, once I get those, and people can see it, see it operating, see how it all works from beginning to end, then I think there's going to be a lot more a groundswell of interest. At the moment, everyone's confused. All the farmers are confused. The markets confused. Everyone knows what they think they want to do, but nobody really knows how to do it. But Regen Farmers has the answers and the platform. So, I think it's just a matter of time before some good examples go through and work and then it can be seen how it's going to actually function. It's about trust to, you know, farmers trusting, trusting Regen Farmers, because there's lots of other commercial options out there as well, but it's all everyone's scrambling at the moment, trying to do what they need to do. And it's just going to be hard. But I think, I think getting those couple of big ones on board and having the grants for those, that's really critical. And then they can show that the examples have worked. And then it's a matter of them getting farmers on board and the buyers.

15:38

So, it sounds like once things start taking off, that whole scaling up and having the capability to respond to the demand is going to be quite critical.

15:50

Well, I think because the platform, they have spent so much work on the digital platform, it is all very scalable. And they might still have to work through a few issues of cost as they do some more examples. But with that system, it's quite scalable. So, I think they're, you know, really in a box seat there. They're basically sitting there going, we're a mutual, we're not for profit. We've got the platform. Now we're working through some examples. And once people see that, I think it won't be that hard to get larger numbers on board.

15:50

Right? And in terms of capability to deliver it, would they need to look for more Carbon8's on the ground. But you know, is do you see that as being something important in the future.

16:52

I don't know, I think things go through a bit of a, that I think things go through stages and growing. And I think that's a good start. But I don't think long term you really need that. It's going to be different, probably different in each region in each area, as to what actually drives at most, it could be like a Landcare group, it could be a private group like them, it could be just a couple of individuals who are really keen to get it happening. Like as I think different drivers in different locations.

17:23

Oh, that's interesting. So, then the structure of what emerges is quite organic and region specific,

17:30

very organic, it could end up being different in different areas. But it has been very organic to date, like some things have come and gone because didn't work at that time. But it might work in the future, for example. And then other things have happened and worked because the right people have been on the ground there or have been interested in involved. I'm

17:56

just I mean, this has been very, very helpful. Thank you, Liz. And you've been so articulate and straight to the point. And, but I think that also just looking at the landscape and Australia, are there other organizations that are similar to RFM.

18:19

there's nobody that we know of that's doing the mutual side of it. But yes, there are definitely companies that are trying to Yeah, that are basically saying we'll come in, we'll show you how to do or the tree planting, we'll, we'll do all the estimates for you, we'll even sell into the market for you. And then we'll make our profit as well. So there, there are definitely lots of companies trying to do that. And but they're fairly, fairly early in their, in what they're doing. But for example, one just down the road here in my local area, and they're pretty good. They seem to be pretty clued up and they know what they're doing. The hard part is, you know, they've got to make a profit as well. So that's, I think that's the downside, although it doesn't mean that that's still not going to happen. It probably will. I don't think Regen Farmers is going to take over the world. But essentially, if people are looking for something that is nonprofit, that's trying to do it for all the right reasons, then yeah, I think you can't really go past that that model.

19:28

And then maybe one last question is, what do you think has, in terms of, Rohan and Wardy's approach, what do you think has been key to them getting this far because it's pretty damn miraculous.

19:46

There are some very key things I think that I can say. One is their absolute determination. It's been amazing and there's I mean, they have pushed through, and others would have faltered by now for sure, because they've had a lot of setbacks, they are so determined and they're very hard working, they put a lot of time and effort into it. And they believe that they believe in what they're doing. And I think that makes a huge difference when you've got that belief. You basically don't give up and they haven't given up yet. And I don't think they will, I think I think it will get there, it was pretty close to a few times where we thought, we're not going to have enough money to keep going and paying Wardy and Rohan. And I'm sure there are a lot of their own money has some of their own money has gone into it. And they've, you know, they've had to sacrifice things. But yeah, look their pure grit. And determination, I'd say, would be the thing that's gotten this far.

20:43

And anything about their style and process of creation or co-creation.

20:48

And they're quite interesting. They are both different. But I think one of the things I've noticed is they quite willing, very willing to take on new ideas, very quick to take on new ideas. And I guess that's that kind of entrepreneurial ability, which I don't necessarily have, and maybe a

lot of other people don't have that. They seem to be able to see a whole lot of things out there and go, oh, yes, let's look at that. Let's look at that. They don't say no to anything, initially, until they've looked at it properly. And I think that's amazing skill to have, because you do pick up things that others wouldn't necessarily pick up. That's Wardy's, definitely Wardy's style and also the relationships are very good with Wardy, he's a people person. And he, he knows people he gets on with people. He's the kind of person that people want to be involved with. And so, I think that helps a lot. And Rohan's financial skills are incredible. And a lot of belief, I think in this this can work. We know this kind of work. It's just a matter of getting through all the little hurdles.

22:07

And then it also seems like they've both surrounded themselves with important or passionate or talented or competent people. Do you have any, any comments on that?

22:21

Yeah, definitely. Yeah, definitely. I mean, on the steering committee, and now on the on the members group, we, there's some really, really good people. And they're obviously very experienced in their own areas. Like I have probably the least experience in this whole farming thing. I'm not really a farmer. But there are some people with a lot of experience. We've got a couple of landscape agronomists who are very, very experienced, and some other people, and they're all different. They're all about different skills, I suppose. And they will bring something to the table. So yeah, having those that makes no difference.

22:59

You mentioned the landscape agronomists, who stands out for you who would be important to speak to?

23:05

I think Christophe would be one that you should speak to. Yeah. I don't know if you've spoken to him. I know it was a little while but he's, he's come back. Yeah. Yeah. There was a guy called Danny actually, for ages. I don't know what's happened to Danny. He's pretty good. And there's a guy called James Campbell. And Jackie, of course, Jack is not a landscape person. Jackie is really good at what she does and is doing a great job down in the Murray area.

23:46

Awesome. Anything else that, you know, you think is important to know about this journey from start to finish? Like are there other influences, or people or organizations who have been important, at key points

24:04

Well probably Rohan and Wardy can answer that the best because they have vision on it all, where we're kind of we see things afterwards and we understand, you know, in general terms, what goes on but, in terms of the specifics, they you know, they're the ones who, who have all the meetings in driving it all.

24:35

Although, that's I think that's it. That was really helpful. Thank you so much. It's so nice when you know, you speak to a lot of people and then you speak to a person who does like succinctly pulls all the things together quite quickly. That's how this conversation has been. Thank you so much.

24:51

Oh, good. Well, it's my pleasure to be able to do that and I'm and I, and in many ways, I've been a bit of a passenger because I don't have a lot of expertise. Now I'm learning as well, but yes, I'm very passionate about the area and I'm really wanting to see this work and succeed because it is so needed me. Yes, we all have, obviously, emissions have to be reduced. That's number one goal but this, this is definitely, you know, this intermediate phase, we have to offset. one of the best ways is with trees, so, and the biodiversity piece is really important too, because they all go it goes hand in hand. So yeah, very passionate about that. And I think everyone who's involved is and we can see that it just makes sense. Like, you know, so much of Australia has been cleared by farmers. It's not farmers' fault. It's just the way national agriculture has gone. Yeah. And if we can start planting some of that up and getting some of the wildlife back in and trapping carbon at the same time. Well, to me, it makes a lot of sense.

Farmer, NPO founder, and Members Council

So lovely to finally meet. I caught a clip of you. I think it was an interview around Rachel's farm the documentary. Yeah, got caught a little bit of your story, which was nice to know, actually before, before I chat.

00:25

Yeah, we've been doing stuff for a little while and, you know, sharing the outcomes with anyone that we that cares to listen.

00:41

Awesome. So, I mean, I think you know, what I've tried to do here, really doing a doctorate and I'm using I think Regen Farmers Mutual is just a fabulous and fascinating case study in terms of sweeping stakeholders into what looks like it's becoming a very interesting ecosystem innovation ecosystem around Regen. So yeah, so that's why I'm keen to talk to you because I also spoke to Kim and she said, you were going to be a great person around the ecosystem idea as well. So, I got excited that maybe there'll be some input later in our conversation around that, and how you think about that. But first, tell me a little bit about yourself, and how you got to be involved with RFM.

01:44

So, my story started a long time ago with chemical poisoning. And that problem ended up being solved, the health problems ended up being solved by a change of diet. And as I was learning about the nutritional side of food and the impact, personally on my own health, I was also being schooled or mentored by a gentleman called Bruce Ward, who happens to be Andrew's father, who was teaching Holistic Management. So that got me on a pathway to regenerative agriculture as a whole. And with a very clear link in my mind between how we farm and the quality of the food that comes off the farm. And so, since then, we've been just looking for the best programmes to produce the best food and sharing that information with farmers. And, you know, Andrew, knowing Bruce, and through that, knowing Bruce's children, Andrew and David, when Andrew started to talk about the Regenerative Farmers Mutual, we were more than happy to come in and help the co-design process. So, you know, the co-design, I think, has been an extraordinary process to participate in because it really drew out what was actually going to work for farmers. It was a long process. And, and even with that, you know, probably some of those solutions are a little bit sort of harder to implement than farmers might have thought they could be. And that's okay, because there's a lot of loyalty with the people that are connected there with the solutions that are coming forward.

03:55

So, you run Carbonat8?

04:01

Yeah, I was one of the founders of Carbon8. So, we were already in the field, teaching, regenerative farmers mentoring regenerative farmers into the change of practice. So, and it was through that connection. I guess, really, that that Andrew sort of approached us and said, you know, this is what we're thinking of doing.

04:27

And I'm also curious to know, as you know, so Regen Farmers Mutual was established, what are some of the key developments that you've noted since that original co-design phase? What are the key milestones that stand out for you?

04:48

Well, the ability to even just get the mutual registered and get farmers engaged in that design process was a really quite strong milestone. We helped design the digital twin and, and the onboarding process that farmers utilise to start to develop their data collection or their pathway towards being able to engage in credit sales of any sort of nature. So, seeing the digital twin developed, the pathways to collect data, make decisions and collect data. Each of those steps were pretty major milestones in getting a functional platform. I haven't seen the financial side of it, I know that Rohan comes from that field, and there's been a lot of work in there, integrating with, you know, government departments, financial marketplaces, any sort of innovation, that could be brought back to help incentivise and benefit the farmers. The core outcome that we've been looking for, I think is common ground for all of us is to get the best outcomes and the highest rewards for the farmers that are leading the innovation, leading the practice change, it's really easy to sit back and wait until someone else has blazed that path before you sort of start to change your own practice. And any of us that care about the outcomes of the land realise that you know, waiting 20 years for 50% of the farmers to start to move is just going to be to big a cost to the health of the planet.

06:57

So how would you describe Carbon8's relationship with RFM because it seems like you're quite a critical part to the development?

07:09

We're a collaborative partner, really just with similar goals. And, in fact, I've probably been working in a number of different areas to achieve the same outcomes, being a change in the

food system. I work very strongly with another group called Fresh Earth which is all about linking consumers to farmers. So that's actually a real food education and connection platform. The Regen Farmers Mutual is more about environmental stewardship and ecosystem services. We also work with a group called Regen Hubs, which is about bringing the best in in technology to the farmers. So, the best of the on-ground programmes to help restore the soil and Carbon8 really sits in there as a as a sort of an education platform just to share the knowledge that we've gained across any of those activities. And it's very, you know, we're a collaborative partner, we've volunteered our time into helping the early-stage guidance, so the members platforms. We've also been able to help through our farm mentoring programme in organising some of the cross-landscape programmes. So, we've got the Traprock programme, the Upper Clarence programme, their Regen Mutual programmes, but it's been a Carbon8 employee that's had the ability to get in there and sort of wrangle it all together.

09:12

So, yeah, I wanted to understand how much of this was kind of voluntary and how much of this was really paid work. So how does it work financially?

09:42

Carbon8 has been lucky enough to have some really great corporate sponsors. So that has allowed us to fund people like Kym to help the mutual without now. Obviously, we've aimed to have the mutual pay or the farmers pay where possible for the services. But if there's been a shortfall, we've been able to stick in there, because we can use donor funds to cover that. That's allowed us probably to be more supportive than a couple of other groups that would love to be involved but just don't have the wherewithal to be there all the time. Within Carbon8, I know Helen and myself and Kelly Jones, the founders, in the early days we were very much voluntary. We were paid for maybe 10% of the work that we put into it. As Carbon8 got better, Helens been able to be paid, and Kym has been able to be paid. Largely my work has been voluntary. So, I do probably volunteer anything from 10 to 20 hours a week. And that's just across a range of a whole range of different things. And sometimes that's the Regen Mutual. Sometimes it's, we've done a few workshops towards helping farmers understand the ecosystem services marketplaces, we've done it for Landcare, we've done it for Regen Mutual, any of those things, we're really wearing all of the hats when we stand at the front and talk to farmers. And, you know, sometimes we've been paid for that sometimes we haven't - probably 50/50.

11:51

So that process you spoke about, that onboarding of farmers and the development of Regen Digital, the platform, the digital twin. Tell me more about that early process, what was involved there? And what kind of came out of that? What were the results?

12:12

So probably my part of the story, and this is not to take away at all from the Regen Mutual platform, but we had been developing a pathway or commercial certification of better-quality food. So, we'd been for a long time looking at how do we get farmers to track the right data? So, we had largely designed, and I say we, I had probably largely designed an onboarding process, which was the question tree that we then shared with Regen Farmers Mutual, and the Regen Farmers Mutual were more focused on ecosystem outcomes than food quality and communicating to food consumers. So, there was a bit of a difference. That's why I was just very happy to share what we'd developed with the mutual and I think it gave them a bit of a sort of a step up into, okay, well, we can design it this way to do what we want to do with it.

13:31

And other parties like yourself, are there others who are running separate organizations that are contributing capability, or resources or ideas or development efforts?

14:00

Within the steering group, the producers steering group, there's a number of them. You know, there's a guy who heads up the Advisory Committee for the MLA, so he's a livestock producer that's very heavily involved with the MLA and has spent a lot of time and given a lot of skill and help and benefit to getting this set up for the mutual. They're largely farmers that have been innovative and because they've been innovative, they've been involved in representative organizations. So, another lady very heavily involved with the Wool Corporation, but you know, coming She's a farmer, another lady very involved in biodiversity. So, these people were largely the ones that already active because they care that then could see the benefits for farmers of a mutual representing farmers and then came in and have given a huge amount of support to getting the mutual setup.

15:15

And would you say that they've been important in terms of connecting RFM into the networks and kind of increasing the reach? Yeah,

15:27

absolutely. They have. Yep. Yep. And through those networks, been walked into doors that would have taken them a long time to open. Without that help. So those initial, you know,

farmer innovators, farmer leaders, you know, that they've been instrumental to accelerating the impact of the mutual.

16:03

So, Kym was deeply involved in that, or you're also probably deeply involved in the Traprock pilots Yep. And I, I assume that that provided a learning experience and a process that Wardy has templatised on the Miro board to use in the projects that are coming up now, especially the cohort model where they gain to run landscaping impact programmes across a number of landscapes? I just want to know if you continue to be involved in that development, and that kind of stretch of the approach to a cohort's approach.

17:01

Yeah, so this is where I think the greatest benefit of the mutual is for landscape improvement. It's there's been a lot of rhetoric, and a lot of fancy talk from governments, and from impact investors, trying to get things to change and promising lots of things including support for biodiversity and change of practice on the farm. The reality is that as soon as they get asked to sign the check, they all disappear. But the farmers themselves do actually care. So, all they've been missing is the framework to come together. And that's what the Mutual has allowed. By pulling them together, allowing farmers to come together with then got actual real leverage or muscle to go back to the government and the impact investors and go come on guys, put your money where your mouth is. Here we are wanting to do the work, someone needs to pay or help. Help us fund the social value of the regenerative work that we're doing. And, you know, farmers have been well aware for a long time that that the ecological services that we manage, are more for social benefit than they are for our benefit. There's a certain portion of the farm health that we recognize because there's, you know, particularly in in family farming operations, there's intergenerational thought, now we're thinking about how we're going to leave the farm for our children. So, we know that there's a benefit in a healthy farm. But the demands and requests coming back from consumers have been largely unfunded because the consumer world has wanted the cheapest food they could get. And the cheapest food you get is from mining the environment. So, you don't get cheap food and a healthy environment. You know, there has to be a balance in that process. And so, being able to focus the attention - I was involved in catchment management committees back in the 90s 1990s I was the chairman of the local cash management commitment committee. And this was where cross-landscape resource sharing and ecological function were the, the key topics. And it was a lot of farmers engaged in that. It was where Landcare met government. And so, we learned a lot out of that journey. And it's really been that long for the government to work out how to reflect the

ecological benefit that we're managing and the first efforts for that were through carbon credits. The next effort that that's just hitting the floor now is through biodiversity credits and the biodiversity market. And it's an interesting one. Carbon credits are directly related to my land because it's on my farm. Biodiversity benefits are cross-landscape, much more complex. And this is a real benefit that the Mutual's been able to showcase back to government. There's no use funding a farmer to put a tree line on each farm that's completely unrelated to any other landscape around them. If you get 10 farmers in the room, and now those tree lines are planned in a way that we get remnant areas of vegetation connected, then that has a significantly higher impact on the ecological outcomes. So, you know, this ability to draw farmers together has been a tremendous showcase back to governments, who, a lot of times is just looking at satellite imagery, and really in despair, about what to do about it, and how to do anything about it, other than bring out the big stick. And here, farmers are coming together going, no, no, no, we're ready to work together, get the big maps out, and let's do some planning.

22:12

So it's interesting that you're, you know, you're articulating the fact that RFM are pioneering a framework and collaborative ecosystem-based framework for landscape regeneration. And in that, you know that delivery to that framework, especially now as they start scaling up, will require resources, and I'm sure they're very particular to each location. So, I'm keen to understand your view of how they now start building capacity or actually, to tap into existing capacity and to optimise or obtain the capacity around them or supportive of them or aligned to them to deliver to those projects. So, what are you seeing around this scaling development and delivery to this framework that's emerging?

23:23

I used the wording before, there's been a lot of rhetoric around, and by farmers coming together with the aid of the mutual, with the mutual being the catalytic framework, to bring farmers together to interface with that catchment sort of planning process, with the government process, we've really been able to call out the rhetoric, you know, and the government's likely got good intention and have got programmes and money to put behind that good intention. And that's what the mutual has particularly tapped into. Where, where the rhetoric has turned out to be a lot hollower, has been with impact investment. And impact investment has been suspiciously silent since the framework launched. There's a lot of rhetoric; I'm sure coming out of them that Rohan was working with to gain funding. They had a plan for a big regenerative fund, and it's largely dissipated when the request has been made to sign the checks. So, the Mutual's had to be nimble enough to pivot somewhat in their launch strategy and go Well, we're getting funding

out of government will work with resource based, like regionally based programmes funded by government, while the once loud impact investment field find their voice again. You know, I'm fairly critical of this impact investment movement, because it's not the first time I've seen them very absent when the opportunities been there to have impact. So I think at the moment, the scaling opportunities for the mutual are really more about the farmer recognition of the value of what they're doing, and the voice that comes from working together, and by doing what they can to build farmer awareness of their benefits by engaging in the government, regional government programmes, regional government funding when they can get it. My personal feeling has been from working in this field for 30 years that the real capacity is in getting consumer support for the ecological services that farmers undertake, which is why I've also worked with the platform that connects consumers and farmers directly together, essentially, been the next part of the step between where the Mutual's got with the digital twin, adding a couple of more measurements to the digital twin to talk about food quality, and then being able to connect to consumers and consumer marketplaces. And ultimately, my vision is something more along the lines of when you buy a plane ticket, you have the chance to tick a box, the box that you impact. If we asked farmers to offset the impact, the financial costs are significant on the farm. If we ask wholesalers to offset the impact, it's somewhat diluted, but it's still a significant ask. And they all hide behind their shareholder returns and so disappear out of the equation. Consumers have the capacity. And if the same impact is shared across all the purge consumers, then the increasing costs we're talking is somewhere between one and 5% on the food bill. And if we can manage to link that back to real measured outcomes on the ground, then my feeling is that consumers will support that. And will they'll support it in spite of food processes and, and the government confusion. Yeah, so that's been my personal aim now by supporting the process of having a farmer-owned mutual with individual farmer digital twin sitting there, and the data now collected in a way that we can just reorganize it and move it through to the consumers, then we've achieved step one, we've still got to achieve step two.

29:04

So that Verification Project with McDonald's and the Australian Farm Institute seems to be an important step to in that direction, doesn't it?

29:13

Yeah, it's starting to pull that sort of food industry engagement into line. So yeah, I think that's been important steps. I think very few people understand the change in International Accounting Standards and this move towards being able to report not only your own scope one emissions but your supply chain scope three emissions. I think it is actually a really positive

step forward. And there's a lot of businesses that will have a bit of heartache, but it will move the system. I think farmers are largely ready to move, what hasn't moved yet has been the financial drivers to do so? When the financial drivers change, and I think farmers will change.

30:15

So, given where RFM are today, and the potential that lies, it seems like it's learned the potential just lying there to realise in the next year or the next nine months, they seem to be some really pivotal projects on the go that I think could be real game changers. But what I'd like to know from you is, what in your view has contributed to their, you know, to them getting this far this quickly? In a way? You know, what is it about Wardy and Rohan

30:52

If you speak to Wardy and Rohan, they will say it hasn't been quick. Yeah, A lot of hours and a lot of effort! I think the core aspect has been the intention to give farmers the best outcome that they can possibly get. And, you know, that's also been largely the Carbon8 founders, the same desire to get the best outcomes for farmers that we can. We recognize that the middleman in the food industry, has taken all of the profits. The farmers have been left pennies on the dollar in the process, in the efforts to get cheap food through to consumers. And so, there's been this, in some cases, quite deliberate, disconnection between farmers and consumers. And that's why it's resolved in the in the landscape that you see now. Sick and tired and, and under pressure. And farmers are sick of that. I think consumers are sick of that. And the only way to remedy that is, is connect the two back together with information that reflects the real outcomes on the ground. One of the things that a lot of farmers are really aware of and very much on the lookout for, it's greenwashing. And the green washing will come out of that corporate crew in the middle. They will tell everyone; they're doing a great job. But I can tell you that they certainly haven't been signing the checks. And they certainly haven't been at this point paying farmers for the innovation and effort that the farmers have undertaken.

33:01

So, if one had to look at the processes applied from co-design, to where they are today, what processes have been particularly powerful in terms of shifting the organization forward.

33:20

Patience and the ability to hold true to the original intention. So, is that a process? Probably not really, it's actually more a reflection of the person, personal ethics that the people engage.

33:53

So, what do you think are important next steps for RFM?

34:11

Successful outcomes in the projects that that they've been entrusted with. So, that ability now to interface with the farmers and allay any fears or distrust that may be sitting back in the farmer area. So that ability to stand in an integral manner with the trust that the farmers have shown and turn that, convert that into real ecological outcomes. If the mutual can do that, then the sky's the limit because that gives them credibility through the government sector, it forces the impact investment sector to lay down some of their excuses for not being involved. And it will give tremendous confidence to the farmers that have just been standing back watching, waiting to engage.

35:29

And I suppose supply chain backing as well wouldn't there be investment in corporate investment?

35:38

not so much the supply chain backing is really more about being there to help the corporations that are going to run into a shitload of hurt, pardon my language, in trying to adapt to the change in accounting standards, and there's ability to look into the supply chain, and now be responsible for the impact they are having that corporate hurt that's kind of come out of that navel gazing that will have them look up and go, well, where's a place that I can engage to help me solve this? And if they really want to engage with farmers and mutual is they're going, we are the trusted partner. It's a bit like Carbon8, you know, from our perspective, we want to be the trusted adviser for the farmer in the transition to regenerative practice. And so, we don't lightly point at collaborative partners and say, these guys are doing a good job, but we can do that with RFM.

36:53

So, for me, what's really interesting is how would you describe because that's the model that's emerging for me looks pretty new. And you know it. You can't say like, it looks like a business model, or you can't say it looks like an ecosystem model. You can't say it looks like a government funded model. How would you describe this model that is emerging through RFM and what they're doing with partners like yourself and Landcare and NRM.

37:25

Well, it's a collaborative model. One of my early mentors that came from Landcare, actually, a bloke called Jim McDonald said to me, the first time I was engaged in the catchment management area, which is where we're sort of Landcare meeting government. He said to me, Mike, there'll be no limit to what you achieve, if you don't mind who takes credit. And I think the collaborative model needs to be strong enough in your own personality and integrity, and

certainly, we've got that with the leadership, the RFM with Rohan and Wardy. You know what you're contributing, even if someone wants to stand up and sing their own praises about what they've achieved. But to know that what has been built has been built on the collaboration and the trust that the people engaged because the mouthpieces quite often don't get the trust, it's the quiet achievers that stand in integrity, do get the trust. So, I'd say the model is built on collaboration and trust.

38:45

Beautiful. And then in that context, how would you describe what Rohan and Wardy do in building that or contributing to the formation of that collaborative model? What is it that they do to make that happen?

39:09

They stand in integrity. That said simply, if they say there's an aim, what they're doing, if this is their intention, then they won't be bribed or moved from that intention. They may have to pivot in the how-to's, depending on how the rest of the world is engaging or responding. But their own individual integrity hasn't moved.

39:41

So, the kind of the last question really is that they also seem to have drawn to them like a magnet people, influential and contributing people like yourself, who have strong alignment with the greater purpose of what it is that they're trying to do. How would you respond to something like that?

40:12

Yeah, because, you know, from my perspective, I trust that they do stand in their integrity. If they if they say, they're not distracted or enticed by the big shiny thing, be that money or fame. You know, I trust that they're true to their word, because their actions have backed up their words.

40:53

So, this has been lovely, Mike, thank you so much, is there anything else you think that's important to understand about them, and their process and impact that's unique and valuable?

41:10

I think there's an element in there that says, you know, stick to your knitting. Our aim is to get farmers recognized for their contribution to ecological services and do it in a way that it serves farmers. So, you know, the co-design process really probably came from Wardy's experience, and he was able to contribute that, but the aim of that was to set something up that benefited farmers and dealt with this aspect of ecosystem services. I think that, you know, in, and I say,

there's probably more in reflection of my own desires to change the food system. The food system is one large, complex system. So, it's really a case of enabling, assisting, helping any sector of that that's getting some leverage. And some movement forward. There was actually a really interesting thing that I seminar or workshop that I was invited to probably eight or 10 years ago now. And it talked about the change model and how you enable a broader section of the impacted ecosystem ...So, you know, we can set out targets. And the quite often the moonshot idea is that we up here, but we don't get there. Whereas the, this enablement model, there's, let's have a look at who may be somewhere engaged in our ecosystem, let's seed ideas everywhere. And quite often, you'll be surprised at where those seeds take root. And you now have another force moving you towards the desired outcome. So yeah, and I think the collaborative model allows that to happen.

43:40

I love that story. I'm so glad you ended on that because that's kind of a powerful metaphor or analogy for what's happening. I think, you know, Wardy is the public seeder... Rohan, I think he's seeding in the back rooms, of all the meetings that they're having. He mentioned something interesting, because I spoke to him yesterday. And he said, we constantly facilitating conversations. You know, and that kind of speaks to your and he says, and that's just that continues to grow. So, it's like you're seeding story.

44:20

The conversations are planting the seeds. And then when we say those seeds take root, then we do whatever we can to enable that force to contribute towards our ultimate goal. Sometimes that force gives us direct reward. Sometimes it doesn't. That doesn't matter because it is still a force moving us towards the ultimate goal.

44:47

Also, just one last comment, the steering committee seems to be very instrumental, like the people on that committee seem to be hugely instrumental in terms of support, contribution, and you know, feeding thoughts around future direction or even connecting and networking. Do you see a need for something else in the steering committee going forward as the organization scales up? And you know, it's now playing at a national level in Australia, but could very soon be, you know, competing on a global stage? What are your thoughts around that?

45:35

I think there's an evolution or a transition, and the transition that needs to be managed with that steering committee. The early steering committee has been a very passionate and innovative early movers. And in some respects, they've contributed with an idea that we're protecting the

interests and outcomes of the farmers. And the next step is to enable the farmers themselves to be able to represent themselves in that environment, in that national and international environment. Now, not all farmers are going to be capable of stepping into that arena. But it's nearly sort of beholden to us to hold that space and enable as many as we can to transition into being able to represent themselves in that in that field.

46:43

What do you think that's going to take?

46:47

Some thought and some planning. And potentially a little guidance in early stages of that transition may get a little rocky, and you just got to have enough foresight to allow the ability to move through anything that might be rocky but protect the ultimate outcome goal.

47:18

And has Carbon8 got a role to play in that.

47:20

lots of lots of give to give. Yeah, Mike, thanks so much. That's all this was really lovely. And you've given me some lovely stories and somebody new details. So really appreciate your contribution to both. And as I make sense of it all, hopefully, I can actually share once the picture for me emerges, share something with you and get you input, in terms of whether I've interpreted things correctly, and whether it resonates in terms of what I felt. So hopefully, we can have another connect later on.

48:11

I look forward to seeing how you pull it all together. Obviously, you're a person that contribute a lot of the world even be interested in building this into a doctorate. So yeah, another set of eyes and another point of view is always valued and valuable. Yeah.

48:32

Yeah, well, I hope I can make a good contribution. But thank you so much. Appreciate Mike and lovely to finally talk to you and get your info and we'll speak soon. I hope so.

CEO Australian Farm Institute

Great. So, I think let's get started. I'd love to. I've done a little bit of, you know, looking into you on LinkedIn and things like that. But it would be good to get your story and how you came to connect with RFM.

00:21

So, my story at AFI or before AFI However, I've been executive director of Australian Farm Institute now for about five and a half years. Had I come across RFM? I came across Andrew Ward, probably before I came across Regen Farmers Mutual, just through his presence on social media. On Twitter, LinkedIn, saw him at a couple of conferences that I've been to. And then through his presence on social media became aware of Regen Farmers Mutual, who then reached out to us in the work we were doing around the development of the Australian Ag Sustainability Framework, which is a Department of Agriculture funded project we've been involved in now for a few years, and their interest in the framework relating to work that they were pursuing. And then, as a result of that became more directly involved with them with a joint project that we put forward and one at tender around.

01:53

Okay, so can you tell me a little bit about the framework because what I'm also keen to establish is the intersection between what you do and what they're doing, and how they feed each other - would be good to know.

02:10

So, the Australian Ag Sustainability Framework is a whole of industry, very holistic sustainability reporting mechanism. It was prompted by farmers identification of a role for government in facilitating a pathway through what was the rapidly emerging but very, very confusing environment around the need to demonstrate sustainability credentials, whether that was for a very granular farm-based certification process, or right through to a much higher-level regulated, or legislative requirement to demonstrate sustainability. What farmers were experiencing was that those pressures were coming from multiple angles or being developed in a very siloed fashion using different language and requiring different metrics and different measurement. So, we through another preceding project basically put forward a set of recommendations saying that, you know, government could be involved in facilitating a more coordinated effort towards sustainability, which they thankfully took notice of, and then put significant funding into the development of the Australian Agriculture Sustainability Framework. So, it's funded by the Commonwealth government, managed by the National

Farmers Federation, with a number of research providers, including ourselves. It's been running now for just on three years, but you know, it's had quite a lot of development iteration over that time. It's now has developed at the actual framework itself, Australian Ag Sustainability Framework, which is a principles based- seven, eight principles ESG approach to sustainability. It's now at the stage where so it's got continued funding from the government for the next two years, to turn it from what has essentially been a research project to this point to an operating entity. So, you know, an entity that continues to develop the framework, report against the framework, and convene a community of practice or a forum in association with the framework, that is all the organizations that have an interest in reporting on sustainability, so that's essentially what the AASF is.

05:08

Sorry, I just wanted a quick question that framework then has wide appeal, obviously beyond agriculture as opposed to supply chains and corporate community and whatever. Okay. Carry on. Let me not interrupt.

05:21

Yeah, no, no, that's fine. It's designed, you know, it's to be able to be used at multiple levels. So as a reporting tool, to be able to, for the industry to use it to report literally to the community about sustainability status of Australian Ag in a way that can be easily understood, can be verified, can be trusted. It can be used by supply chains, too, who are developing their own sustainability frameworks, or reporting mechanisms to look at areas that they should be reporting against, because it is very thorough in terms of the holistic nature of it. And we found that already that from supply chain companies through two industry frameworks that have started down this path already but really been concentrating more at the environmental end of a sustainability framework, are looking at the double AASF for signals around areas of social metrics and governance metrics that they could be developing as well. So, it's been used in that context as well.

05:27

Okay, so you were speaking about projects you've got involved in with RFM got funding.

06:48

So, the government, again, thankfully, with a bit of foresight, realised that one of the real sort of changing elements of the sustainability picture now for agriculture, is the need to verify sustainability credentials, and have that verification able to be traced through supply chains. So, there was a large round of funding earlier this year, that looked to fund a whole bunch of projects to develop traceability systems for sustainability. And the language in that tender

referred to using the AASF as the basis for identifying the sustainability attributes that should be focused on. So that's where we then were approached by RFM, who wanted to look at tracing a sustainability credential in the beef supply chain, using their networks, through to McDonald's here in Australia. And that, you know, you had to be a certain type of entity to qualify to lead a bid, and they didn't qualify, and they approached us about helping them out. I mean, helping you out in the project, generally, but also leading it so that we because we qualified, as an appropriate entity, and so that's how we became involved with this project.

08:32

And the project was this year?

08:36

It has just commenced, yeah, so it's going to be running.

08:41

Okay, so any other collaborations with RFM? I thought that you were also involved in Traprock project. No. Okay. Any other project? No. Okay. So, in terms of your perspective of their emergence and development, how have you viewed that process? Do you have a story to tell? Yeah.

09:23

Look, I mean, to be honest, you know, as I said, I've been aware of Wardy through social media, that's how I become aware of RFM other than the then parties, being a partner with them in this project. I would not say I have a particularly detailed understanding or associated with them, just through contact at conferences, that sort of thing. And yeah, so I'm probably not in a position to comment too much on their evolution from where they started and how they how they got to where they are now.

10:13

Okay, so what I'm really interested in is, is that your focus is sustainability. So, it's also interesting to hear the language. So, the focus is sustainability, whereas RFM, you know, the focus is more around carbon and biodiversity and supply chain, you know, so it's the trading aspect, and it's the supply chain aspect. So, the language feels a little different. And in your view, does the sustainability perspective include those things? And if so, what is the full range of what sustainability might include for AFI?

10:58

It does include them. And I don't think it's incompatible at all with what they're doing. Because the principles in the AASF, as I said, they include social and governance metrics, as well as things like you know, farmers need to have a be able to access a decent livelihood, community

building metrics, all sorts of things that go to what I understand to be more of those fundamental principles behind that mutual approach around distributing benefits equally along a supply chain, making sure that mutual members, you know, that that's why they're participating in a mutual that sort of harness the benefits and more equitably. And so those, while it might not be as direct in terms of the language, it's certainly I think, compatible with what the AASF talks about in in a very holistic sense.

12:02

But the other aspect that is interesting to me is that obviously, your focus is also ecosystem-oriented because there are multiple players in the entire environment. So what it sounds like to me is that, you know, and what RFM are trying to do also has an ecosystem perspective, you know, with the mutual Regen Digital, Regen Trading and Funds, and with the Traprock project as a transactional example, it feels like there is, you know, an ecosystem model of sorts emerging. But what seems to be the big challenge in moving into something completely new, which you're doing through your framework. But what you're helping with, I suppose, is creating the framework and the standards around which people can begin to work with meaning or collaborate with meaning is, would you say that that is correct, which is starting to create a framework of clarity in the marketplace?

13:15

Yeah, and it's a challenge. And it's been one of the biggest challenges with the AASF has been stakeholder management, because there has been significant movement around demonstrating sustainability credentials within agricultural industries for a while now. But there hasn't been a brand Australia approach. And trying to build that brand Australia approach and an ecosystem around the brand Australian approach has been a little bit threatening to some of the industries that see their efforts, either diluted, weakened, or challenged, depending on where they're at, in their maturity. So, it's something we've been very conscious of, and continues to be, it will always continue to be a challenge even with the best of intentions. of everyone involved because agriculture is such a broad set of practices and participants and communities, to try and bring that all together in a single ecosystem is a challenge.

14:39

So what do you think some of the benefits could be the RFM projects? I mean, what new insights do you hope or what result do you hope could emerge out of this that could be helpful?

14:51

So I think, it's going to get pretty technical here but the concept of open architecture standards so that verifiable credentials can be transferred through supply chains, no matter what the

credential is, is a really important aspect of enabling that very broad stakeholder environment? I think there's been the perception and what has been some of the nervousness and threats that some participants have perceived, is that once you start talking about overarching framework, or a brand Australia approach that it requires everyone to work to a single standard. So the idea that it's not so much about a single standard of sustainability, but define standards that enable the transfer, so standards around transferring and how the technical capability for passing along information and how that information is described and verified that in that, that enables a lot more flexibility and a lot more diversity and innovation in the way that sustainability is delivered, described, measured, and reported on. I think that's a really important part of this project that will help the much broader sustainability environment.

16:35

So are you saying it will provide an interesting and example for people to see how open and creative and innovative it can be,

16:45

it will be a challenge, because a lot of the that innovation will be unseen. You know, it'll it will be, it will be the technical standards around how data is described, behind the scenes that is allowing the transfer of information to work. So, it'll be a challenge in the way that we sort of communicate and demonstrate now, you know, look what's possible. Now that we have standards in place for verifying credentials and transferring the supply chain, but if we can do that, and then people sort of start to understand that, then I think that will lead to embracing the idea that it can be done without that sort of, you know, threat of compliance against a single standard. That is what a lot of people are concerned about.

17:47

So, there's, you know, there's a great example. Are the other projects that are licensed and, in the pipeline, to kind of add to this experiential effect.

17:57

So that one project I think, is one to nine that were funded by the Australian Government as part of the what's called the Traceability Uplift Grant, or Agtrace, I think is known for the bigger package that are all looking to develop technology around how sustainability can be traced through supply chains.

18:21

And how does RFM compare with the other nine products? I mean, what are the other dimensions that will come out? Or hopefully be?

18:30

So, they're all working in, they're all working in different supply chains, different industries, doing slightly different aspects. So, I would hope that they're all fairly complementary to each other to build an overall system of, or demonstration of how sustainability can be traced.

18:51

You spoke about a community of practice is one thing like being in a project. But there are also new skills and new capabilities that are required on the ground as this rolls out. What do you see critical to that? And how do you start building capable, competent communities of practice?

19:16

The skills around data and data handling, they're going to be and it's been talked about for some time as being needing to have more people with those sorts of skills in agriculture, whether it's from the sort of traceability aspect or through just to understanding or delivering insight from data from a productivity point of view or just ag production point of view. Those data scientists, data handling skills, just familiarity with data more than there is a moment. Definitely something that needs more capability on the ground.

20:00

And over above that, I mean, do farmers and supply chains or corporates require understanding or awareness or mindset that will help.

20:13

I think that where they're struggling at the moment, right through the supply chain is that everyone has a broad understanding of these pressures, very few can describe it simply and have access to the tools, we'll be able to demonstrate the processes to deliver against broad concepts, because they just aren't there yet, you know, that's part of this project, is to develop those tools or processes. And then I hope that you know, as those tools and processes emerge, that then that provides the information and the resources that those people can use to then better describe how to deliver against the principles, because at the moment, it's just confusing for farmers, you've got a bank manager or a marketer, or someone saying, you're going to have to do this, and the farmers are saying, well, how do we do it? And then they say, well, we don't really know yet. So that's not the best situation

21:19

Hmm. And do you have any partners on the ground that are going to run with you or alongside you to kind of create capacity or learn with you or work towards in some way building that ecosystem model or capacity?

21:38

So at the farm business level, that's exactly why we partner with people like RFM, you know, the, that's it works, we don't really work at that level, we're just about the policy, that making sure that we do work with either farmer groups like that, or with Research Development Corporations, extension networks that do have that interface with farmers.

22:05

I know that any in particular, can you name a few just to give me an example of what's in that landscape.

22:11

So, I mean, one of the other groups that's involved in the RFM project, you're not, it's a bit tangentially, but there's certainly well aware of what we're doing is Meat and Livestock Australia. So, you know, they're the levy investor, for red meat farmers in Australia, and they've got that capability to do the on-farm extension and noise transfer that will be required.

22:37

So the thing, as I talked to people who, you know, had direct experience with RFM, is this concept of moving into an entirely new space that is, you know, full of different language and full of different players and, and one isn't quite sure what's going to emerge or develop at the end of the day, but you have to, you have to walk into this, this new foreign territory. And one of the concepts that seems to be coming up in the way that Rohan and Wardy are moving into space is kind of discovery-led development. So, you know, you don't have a clear idea of where you're going to land up, but you take one step at a time, and you develop what's required now. And then you test that out, and you discover some more, and then you are using that as an essential approach and this space. And besides that, are you seeing other new skill that is required of all people or all key players in the ecosystem?

23:49

Um, I mean, it's that sort of lean, modern startup approach, tech driven type approach, with a minimum viable product that's been difficult in agriculture for a while now. So, you know, going back 6/7/8 years when the Ag tech environment really started to get a lot of investors, and that sort of software type approach of putting out immature products and iterating through exposure to the market was attempted in Ag and it just hasn't worked. And it doesn't work. It's very difficult because you don't the innovation cycle is much slower. You It's a yearly, you know, software, it's daily. And farmers are just not prepared to take on board risk with something that is not fully formed. and which is completely fair. So, it is a challenging thing to try and do that approach where you put something out that you know, is not complete, and then prove it as you go. You've got to have a very willing and receptive and understanding network

involved with you to do that. Now, that's not to say that you can't do it. And if you've got the right group together, then it can work. But you've really got to work on the group that you're working with understanding that from the start.

25:47

what extent are other organizations like the Landcare organizations and Natural Resource Management organization affected or involved or impacted by what you're doing?

26:04

So, they are absolutely involved. Because the sorts of programmes and initiatives that NRM movements, for instance, have been involved in for generations are now the practices and programmes that the sustainability reporting environment is trying to catch up. So, if you can demonstrate that you have those programmes in place on your farm as part of what you're doing, then there's a benefit to being able to report on that. So, you know, they're absolutely involved in how to characterise, quantify, measure, report on things that they may have been funding directly or indirectly, for a long time.

27:05

So, one of the other big issues that I think conference opened with is this scale this landscape concept. And it was interesting; I was invited to the Traprock workshop the next day. And the idea was that Traprock is interesting, but it's relatively small. And then for things to be for transactions to be attractive to the market, scale is required so massive landscapes, so it's beyond the farmer. So, the farmer is one part of the landscape regeneration, there's opportunity in it. Do you have any thoughts on you know, kind of this landscape approach to large scale regeneration of landscapes?

28:08

I think it's important and it is a challenge for the models, business models that make it work, because it's where you have had the development of particularly in carbon markets, you know, carbon aggregators, because you need to aggregate enough carbon to meet then have a viable transaction. And those companies have various business models for how they capture a profit, but farmers have generally looked at that and not been particularly happy with it so somehow you need to get enough output together to make it viable to the market. Now, you know, what Wardy is trying to do with Regen Farmers Mutual what some of the other things I've seen overseas similar, where you've got that mutual approach, and you just get enough members in the mutual and build until you can get the aggregation through that approach. Seems pretty attractive to me. And I would have thought a lot of farmers as well. But yeah, yet to be seen, I guess none of it is particularly mature. So, I think go fairly soon.

29:33

Yeah, one last. Yeah, sure. Thanks for your thanks for your time. So, we were used to in the world, kind of building business models with stakeholders and engaging stakeholders. But what do you think? Do you think that there's an opportunity to start looking at building ecosystem models, where particular players contribute very specific things to an overall bigger idea that beyond any individual player. Is there a place for that in this space?

30:11

Definitely, is the governance model in particular that people would trust to participate in that delivers those outcomes equitably for their input, I think is a challenge. You know, human nature, institutional nature, that institutions in particulars have trouble ceding authority essentially, in a model like that, where they're prepared to hand over or allocate responsibility on, you know, delivering one part of the outcome to someone else. It's obviously a more desirable state, but the mechanisms by which it's achieved, they're just really difficult to get trust in, particularly institutional trust.

31:14

Do you think it's something you'd grow into over time?

31:24

I'm not sure because, I mean, there's been examples of it in the past., but I don't know.

Farmer and Members Council

Good to make contact? Yeah. I have a bit of an idea of what you're after with wasn't really sure hundred percent. Wardy didn't sort of pass all the detail on. You know Andrew, do you?

00:45

Yeah, I do. Yeah. And it's been so generous and so helpful. Yeah, I can't say thank you enough. Yeah. So, all, good. So let me just tell you a little bit about what I'm doing and why it's so important that I speak to you is that I'm doing a doctorate. And my thesis is looking at how innovation ecosystems emerge around a higher-order idea or vision, by collectives. And I'm doing it through a series of papers. So, the first paper I've completed has highlighted the concept of meta disruptive innovation, which is about how collectives align their value propositions to deliver to something much larger than a single organization. And so that's, you know, part of what I'm seeing in the RFM model is that there's a huge amount of alignment by a number of people and organizations to build the solution. And what I'm excited to speak to you is because it seems like you have a wide range of experiences, that is really valuable to understanding how this comes about. It looks like you've had experience of perverse outcomes. Or you've seen the results of that, that you've had experience in landscape paradigm, integrated landscape to the paradigm. And that it also looks like on the reporting side, on the regulatory side, you know, you're, you know, that space really well. So that's why, for me, it's exciting to speak to you, but I'm sure you're going to tell me a lot more interesting stuff about yourself and what to do, and how you relate to RFM, and how you're involved in RFM. I believe you're on the steering committee or the interim members council. So yeah, so maybe we start there. I don't know if that explains why I'm talking to you.

03:23

Yeah, yeah. I think it's a good starting point. And I'm sure there's going to be other questions that depends on how you want to prize information or what you need out of that, of different tangents in this area. We need to make sure it stays confined to what you need.

03:44

Yeah, so you know, this may not be the only conversation I have with you, I, you know, I've used the first round of conversations to get a handle on a framework to investigate further. So, this first round is really just to get an understanding and to identify where I want to focus to, you know, to dive deeper or investigate deeper. Yeah, hopefully, this is not the first time I speak to you, and that you do have time for more. But I think let's start and maybe you can just give me some orientation around yourself, the Western Murray Land Improvement Group and how

all of that connects with RFM and your involvement with them and their involvement with you.

04:38

Yeah. So, I suppose as our group is called a Landcare group, so really, you know, we've got an ethos of looking at community participation power levels, that collaborate or empowerment sort of top of that IOPT spectrum, and, you know, that's, that's our goal is not to generally do things. Yeah, we support other entities, groups, individuals, leaders, for them to become empowered, and we support them with infrastructure around Administration and Governance functions in a day, that's what we want to see. And we want to have a co-design process that goes to those power levels. So, you know, we were looking at, in some ways in the Regen Farmers Mutual, you know, we're very aligned with, with what they've done, and how that's been developed through a co-design process, as a bottom-up approach, not a top-down approach by people that think, well, you know, go and do this, because we said so. We want to get the social licence, you know, embedded in there and make sure people are basically empowered to, to deliver upon what the government needs. So, a lot of times, governments or other entities would like to see something happen, but they want to drive that themselves, have all the power and control. And they're afraid of losing their power of control because of negative consequences. And I keep trying to say to them, you know, the opposite will happen if you invest or support the co-design process, which takes a lot of upfront investment. But once people become empowered, if you allow that to happen, then they become inextricably linked to the outcomes that the government wants to achieve. They've just got to be brave. They keep saying they want to be brave. They keep on, you know, the employer of our water and we are saying no you are not, you know, you're writing your own bloody homework there. So, through the model, through the Regen Farmers Mutual, in some ways, it's a disruptive model looking at markets, and the way we've looked at it as a Western Murray Land Improvement Group is we've got a really rich biodiverse region and, whereabouts in South Africa are you from?

07:27

Cape Town, South Africa.

07:30

Cape Town. there in the bottom? Yeah. So obviously, you know, you're in a high biodiversity hotspot in South Africa, isn't it?

07:47

A big biodiversity region. Yes.

07:50

And, you know, we see not just the carbon market as an opportunity for businesses to offset, you know, what they're doing to counter their impacts on the environment. But, you know, we're probably, we recognized as a top 10 biodiversity hotspot in Australia for a range of reasons. And they'll, you know, let's take our natural endowments to market, will businesses want to support what we can do on the ground? Yeah, there's a carbon market that Regen Farmers Mutual are involved in, but we're more interested in the biodiversity market, we don't get long term, a lot of long term cuts all carbon storage, because we low rainfall area have caught and droughts and, and fighting rains, and you store carbon and you lose it in the drought. And so, it's high risk. We've got a lot of wetlands; we're like an inland delta. So, we're rich, that creates a lot of rich biodiversity. And it's probably not the opportunity for teal carbon, the wetland carbon in the future. Although, you know, a lot of these things are methodologies, you've got to be developed. But so, we see ourselves taking a product to market, whether it's international market at the moment, international voluntary market, it's probably where we see some opportunities, because the methodologies haven't been developed. You know, the rigor, we know that what we're looking at doesn't have robust and rigorous scientific integrity. But that costs a lot of money and then doesn't leave a lot of money for people to get employed on the ground, for farmers to take advantage of markets, to support, you know, with management interventions, that we know are the toolbox measures to support, you know, the species that we might want to save. So, it's sort of an area, it's a novel approach. It's been, you know, looked at by internationally by the Wallacea Trust, Terrasos value nature have got some different methodologies, but we want to look at using a basket of metrics from a local indigenous peoples perspective and local communities perspective go, okay, what's important to you to say, so they're the totemic, the totemic species, what management actions are we going to do to support those species, but also some other bio indicators or some that measure, you know, sort of sort of a broad range of taxa that might indicate a change of some benchmark, baseline data, to, you know, a change may have been five years, but we might see from those management interventions occurring on the ground. So not measuring everything but using some smart technologies bio acoustics, EDNA, maybe, you know, some of the indicators have yet to be developed, and then co-design that with the community and maybe take a corridor or an aggregated landscape product to market and employ people to do the things that at the moment, when they're doing feral animal control, pest control, strategic grazing, all these things, you know, sometimes, you know, they're doing feral animal control, that probably benefits a broader Australian community and what they want, but they don't get paid to do it, you know,

that might have an impact, you know, if they're just croppers, or killing foxes and feral cats that, you know, have a big impact on our fauna, you know, there's not a lot of there's no financial gain benefits. Yeah.

11:45

So, yeah, so perverse outcomes. We've seen you know, the water market has some perverse outcomes, where we've got a transfer of wealth from one area to another with corporate investment. And the government purchasing water for environmental reasons. So regardless of what we might think, and how we use market mechanisms to go to the highest value product, at the end of the day, that's got perverse outcomes for our region where our soil types don't allow for high value horticultural crops, but probably more staple commodities, like rice and, and cereal grains. But the value is in probably horticulture and almonds and things like that. So, there's been the water market has created some perverse outcomes for our community. And then that becomes a cascading effect where you've got, you know, that Swiss cheese effect where you've got less people with the water, or water gets transferred elsewhere. So then the irrigation system becomes more expensive to stay in the infrastructure is shared costs are shared between fewer and fewer people. So, you get that snowball effect. So, we're trying to support drought innovation, through our preparedness or adverse event resilience in a way, where farmers have a stable income, regardless of the vagaries of the climate, or the commodity cycles, or a war going on in somewhere else that impacts as the input costs and sovereign risk and everything else. The farmers have got to pay that is the lowest common denominator. So, we tried to, and then also, there's a lot of money the government spends on handouts to support farmers when there are adverse events. So, in this way, it's looking at being a bit more self-reliant on building their own resilience by having that nature-based backup mechanism to support you know, there's broader benefits than just farming that the broader, you know, Australian and international community more

14:11

So, listening to your story, it sounds like you're very much doing RFM model in your own space and RFM are actually learning from your experience. So maybe if you can explain to me a little bit about your relationship with RFM your role and you know, their developments.

14:34

Yes, so it's probably been over a couple of years. I'm not on the steering committee anymore. I'd like to we just got another one of our staff members has been doing that, I'll get back there to the track, hopefully. But so yeah, it was you know, Regen Farmers Mutual went out across Australia wide you know, he's interested in creating a farmer-owned mutual, another disruptive

mechanism because, you know, we've seen a lot of, well, there was an immature carbon market and, you know, lots of money going around, I think people took advantage of that as middlemen, knowing that there's a lot of opportunity to fill a niche in an area that didn't have a lot of robust legal frameworks around it at the time. And as a result, I think the risk is now borne by the people that take up the market, not by the people selling a product. So, if they don't meet the, you know, the carbon expectations of the product, they got to get back in the market and buy that carbon, which could mean they lose a farm. The people that sold the product, you know, they just taking maybe 50% or more of the transaction for no risk. So, the Regen Farmers Mutual, was a disruptive mechanism that wanted to put 80% of an environmental market back into the farmers' pocket, landholders profit, and 10% to the Landcare groups like us, the cat herders that bring together people, provide information that's independent, you know, so people can make informed decisions when they're trying to sell a product and make money. So, we get 10% of the transaction, Regen Farmers Mutual get 10% of the transaction, and they do that the marketing and the legals. And so, we, we basically, we're there to disseminate and provide information, and then and then just say, oh, these are the pros and cons of, of these opportunities, you know, but to the best of our knowledge.

17:08

So, you mentioned that you're no longer on the steering group. So, you were on it for a period of time. And I'm curious to know, like, what role you play there, and maybe why you're not there anymore. That will be interesting to know.

17:22

Yeah, it's purely just resources. Love to be on it still, we've just, it's just this very tight labour market with skilled people. And it's just been difficult to keep up with what we've got and the deliverables we've got to meet with a range of other funding programmes we're working with. I'd like to get back there. We're still trying to recruit and get some people and then build up to speed. And then I would like to go back into that role. But we've also had one of the other people from the local area that was on the steering committee. ... Jacqueline McArthur.

18:14

yeah.

18:16

Oh, you spoken to her? Okay. Yeah. So, she's been on the steering committee, and she's joined us now as a contractor or consultant, doing some work for us. So, it's backed off on that a bit.

18:31

So, I'm, from your experience with RFM, how would you describe the milestones from start to where they are now? And what do you think has contributed to their progress in this respect?

18:52

Well, milestone, so, progress is slow, has been slow. And that's really because of the inclusive and co-design nature of how they go about process. Getting that stakeholder buy in working through, you know, I suppose disparate views or a range of information, using the Miro boards and other things to capture data. Like any co-design process takes a lot of upfront investment, its huge! They put a huge investment upfront. You know, before they probably got any money, and I suppose a lot of the steering committee people and all the co-design people before they went to a steering committee and invested a lot of, you know, voluntary time into it, of course. And now they've just started getting a couple of, you know, projects on the ground of which were part of one through the Primary Industries Productivity Abatement Programme with the New South Wales Government, the Primary Industry Productivity Abatement Programme, or PIPAP.

20:12

And what does that programme aim to achieve?

20:15

We are working with three other catchments were in one catchment and there are three other catchments in New South Wales. The programme is achieving support for 10 landholders as expressions of interest. So, we'll put expressions of interest out, then they get a range of support, like a carbon footprint, carbon accounting of their operation. So, they know where they stand with the carbon footprint now. They'll get a digital twin of their farm. So, they'll get a map that will go on onto the site, and they'll get some one-on-one mentoring or tutoring. And with the idea that they'll enter in, they'll take a product to market maybe, you know, a revegetation site that will go on to the carbon market. Once they become informed and know what the pros and cons are income streams and work out how much land they might want to put aside for that as an environmental market transaction. So that's here, I've got a bit of information about that summary.

21:39

What are the other catchment areas, just name them for me just so that I'm familiar with landscape itself?

21:47

Yeah, the other catchment areas are Central Tablelands, New South Wales, the north coast of New South Wales and the Central Coast.

22:14

I don't have information about exactly what it entails. But it's one of the first transactions. We've just signed the contract to deliver upon that. Expressions of interest due next week. So, 10 farms, and then we've got sort of a journey to work with them over about six to eight months.

22:51

So, you supply the resources, then for some of the work on that project.

22:57

Yeah, we've got to work out a few more details yet. Jacqueline's getting the operation at the moment. She's been looking at looking after this project. But yeah, we'll be helping them with the information gathering and data collection. Probably got to be you know, have an individual here trained to manage that process and to be the subject matter expert to work with landholders but it will be sort of us working with the Regen Farmers Mutual in that space as well.

23:39

So interesting that earlier on in your conversation with me around your approach is this focus on agency of the local community? Agency and ownership of the solution? Right. So, it seems like that is something that is present in RFM's approach to these landscape impact programmes too, is this whole empowerment of local communities and freedom to choose who they work with? Is that correct?

24:17

Yes. Exactly. And the PIPA project is a landscape Impact Programme. So, I think the landscape Impact Programme was the name of the project that Regen Farmers Mutual gave when they submitted their application to the Product Industry Productivity Abatement programme. So that was a funding stream, and I think they call there's Landscape Impact Programme. Yeah. So, it's, it's really going out and trialling this process to market. The government's paying for lessons learned process, and they'll learn from it. We'll learn from it, pros and cons, okay, how much time did it take to do an environmental carbon assessment of a farm, to do the digital twin to then then take the product to the environmental market, whoever that might be, it might be the government, it might be some other entity.

25:26

So, I spoke to Rohan a few days ago, and while the obviously the focus of this project is carbon, and it sounds like they're working very aggressively or dynamically to understand the biodiversity credit requirements and markets as well, given that they're, you know, they're taking part in the World Economic Forum biodiversity auction. So, is that is that something that's, that's our priority and coming and Wardy also speaks about different credit classes as

they consider scaling. So, reef credits, other credits. Do you see that as, as an important next step for RFM? To widen the scope?

26:24

Definitely, to stack different products? You know, and even some of the carbon methodologies here - some of the methodologies initially wouldn't allow you to stack a biodiversity product with a carbon product. It's two different things. So, it didn't make a lot of sense, but I think you know, now, you can stack two different products onto that. Normally, they are concurrent benefits or synergies with each other, and I need for different types of management. Yeah, which needs to be paid for. So yeah, so stacking those things in getting as much money and maximising value for landholders. Or participants in the environmental market, be a great thing, I think, you know, then finding diverse, the role of those guys is to find the diverse markets and opportunities and customers. And then and then sort of having us as Landcare groups in the community that, you know, know, what people are after they've got the on-ground intelligence, and then customising those needs to a market, or just seeing if there is interest in different products. And, you know, as I said, before, the carbon market was all carbon, you know, we sort of said big, very careful to our land holders, because, you know, we got to have intelligence saying that it's, you are tied to a store carbon in our soils for a long time, because it's all types and low rainfall. So, so we put broker of information in that regard. But we don't, we don't give advice, we just give you information so people can then go out and make informed decisions in other ways, just making sure that they've got both sides of the story, I suppose. And then presenting opportunities as they arise. For instance, we're working in other spaces with biochar. And that's got some other opportunities in the future. But again, the methodology in Australia hasn't been approved. We see a lot of opportunities with livestock methane abatement nitrous oxide abatement through fertilisers, nitrogen-based fertilisers and a range of other things using that process, but we have to go to the international market. We found the international market and got it there. Then we would look at using the Regen Farmers Mutual as a broker to do that because they've got the right ethos and ethics, the whereafter to do the brokering.

29:25

So, everyone I speak to has a different view of what the market is, whether the market exists or doesn't exist, oh, you know that you just have to get organised, the market is there waiting. Others will say there's no market; it's going to take years before it emerges... what's your view of the market?

29:49

You know, whether it's industrial hemp or whether it's whatever, there's a market out there. I'm a firm believer, look at this market there, we've just got to sell ourselves and take it to the market as a lot of corporate businesses that would like to tie themselves as a marketing exercise. Now, there's no probably equivalence going from a biodiversity to, you know, entering the carbon market and saying, you know, that's going to offset our operations as a business doing whatever. What might happen down the track, I don't know how, but I think it's just, it's a good PR exercise, for the businesses to put some investing in biodiversity outcomes and supporting that, there might be offsetting that because of the impacts of mining, or whatever it might be that they do. But we can make them be aligned with us. I mean, we're going to make sure, our trust and integrity and respect are maintained at the same time, that's sacrosanct to our business. So that can be a bit of a worry, but um, you know, we've got a rich biodiversity, we've just got to tell them, we've got a product to take, we've got a product here. If you want to join us and be part of it. I think we never get to that stage usually find someone else, or programme, we find along the way through a funding avenue or whatever. We had a person called Dr. Steven Bowman, who is a motivational speaker, one time we lost the way of funding. When we lost their funding, we got some money for this motivational speaker to come along. And a question said, you know, what do you do? And have you ever got a project ready to go to take to market to pitch at a board level at a bank or at a corporate level? And this is what we've got? Because you've got a lot of great niche products to sell? And I said, no, we haven't, and he said, what are you complaining about? I said, nothing. We just got to get our shit together....

32:10

Yeah, so what you're saying is, you've just got to create the market...

32:14

Yeah, we've got to create, use innovation, and entrepreneurialism. And just, you know, and since that day, and I'd say that to our team, don't just expect other people to come to you, we've got to go to them and say, we've got this product, do you want to be part of it? And when we've just been talking to people, we never actually get to the stage where we've gone yet to do a pitch at a board room, and you want to be part of this? Because we found someone on the way?

32:45

Yes. And do you think ours have a role to play in helping, you know, more groups, like yourself, also be at the receiving end of more of this kind of funding?

33:00

Oh, look, definitely. They're in, in talks with lots of stakeholders, or potential buyers of a product. I don't know, you know, but they're always looking for those opportunities. I saw that

go down little rabbit boroughs too, rabbit holes. And it's probably a lot of people that at the end of the day, you know, we've got to think about the landholders themselves. And this is where things are changing with the scope three emissions coming up, when you know, the value chain is going to push down the carbon to the lowest common denominator, which is the grower of food. So, they're going to say, well, you've got to show that you're offsetting your carbon emissions with your products, rather than the supply chain offsetting their own operations, they're probably going to push it there. So, we're going to make sure that you know, big oil companies or big whatever, that want to have carbon neutral outcomes, don't just take all the all the credits, because the farmers have to keep their own credits. You know, we've seen that now with canola to the EU. You know, they've used this tariff that if you can't show carbon neutrality in the future, we'll put a tariff on that. So, you'll get less money per ton of canola unless you can prove carbon neutrality. And so, the products that they sell will be more and more of that cascading down to farmers. So, we've got to be wary. I mean, we're there to support the whole community and landholders. So, we got to try and make sure that they inset the carbon for their own businesses and not just offset to others.

34:54

So, your group, how are you funded, how are you resourced? I just want to understand how the money flows.

35:05

Yeah, look, we, we ever got the greatest business model in the world... you get a lot of sleepless nights. So, you know, we've got five staff now, we've had 10 at different times, you know, probably six or seven FTEs. Yet, it's hard to because we can't say we've got a permanent job security, it is a real issue, people like people that have got the same ethos as us, they love what they do, the diversity of jobs. You know, different times we had different funding partners last year, on a range of different scales. And you know that some identify with our value proposition, which is social licence we bring. And, you know, they can see the value in that and others like local government departments don't see the value in that. So, we've just got to find a niche area of opportunity. We've been growing as a business; we've been sort of less reliant on baseline funding. We used to get to different project money from Local Land Services, which is like the catchment management authority. That model's changed over time. But we're just going through next week, we've got a major funding application that the new government that come into New South Wales has funded 81 Landcare coordinators full time across New South Wales, which is huge for us, last year was about only point five, half a week's wages. And then the role of that person is to go out to the community and do a needs analysis

of what the community wants, trying to form funding partners to align to those needs and fund those deliverables. In the natural resource management, and agricultural productivity space, improving agricultural production with less resources and resource efficiency, that circular economy, looking at all of those projects. And so, we know that's our core business. So, we go through that, and then doing funding application via the funding application, then we get a project officer, that's done Landcare coordinator that does a project. It's another project officer, that doesn't work. So, we want funding leverage from that investment, and we have been getting about 20 to 30 times. So, for every dollar, we've been leveraging about 20 to \$30, from that \$1. In the past, across New South Wales is about \$4. I don't know if everyone's been capturing the data properly. But you know, that's quite significant. That's \$50 million from the government over four years investing in the programme, we hope to get, you know, we're hopefully successful with a lead Care Coordinator in the future, that's full time. And we can cover more of the footprint and get out to more people, for more collaborations, look for more partnerships, take more products to the Regen Farmers Mutual or anyone else. So, the niche that we feel is, obviously with doing environmentally proven outcomes, getting subject matter experts in the field for the different agricultural productivity improvement initiatives. So, sheep production, or copying or whatever it is that people are after. But more and more. So, we were in the structural adjustment space, helping with innovation, transformation, adaptation, resilience building, supporting communities in adverse events. So that's sort of more of a niche that we were filling in that role and getting funding to do that. So that's sort of a bit of a pivot from the core business in some ways, because now we're looking at getting value adding for commodity, so instead of them being commodity, price-takers, commodity price-makers so that they can be part of that value chain and our local community. So instead, everyone trucking everything down, and trying to backload instead of having everything tracked on a back, load something back. When we've got more emissions coming up more, you've got to transport things out of the region, the food miles, the more it's going to hurt carbon market. So, we're going to look at local industries, local investment in the regions where we produce food to where you are at, you know, help with the structural adjustment, and also looking at the community, improve community wealth building outcomes out of that. So instead of just having massive economic leakage, yes, you've got jobs and put those economic multipliers through here for the commodity production, but when get far more provide even our place-based capital raising, where people have an opportunity to, to be to invest in local businesses, it's got a lot of risk. But we want to provide them with an opportunity instead just have corporates coming in extracting wealth. We want them to be part of the value system. And you

know whether it's a cooperative or a mutual structure that the farmers can, if they so desire, not just drop off commodity, and that's it but that they are part of getting some extra value for the value-added products. So, we've we're sort of working in that space with some business case funding and everything else.

41:06

So that's really interesting. Thank you for sharing that story. Because what seems to be emerging for me, the more I speak to people, is, what I'm referring to now is collaborative intersection.

41:18

Right? Well, that's a good word. Yes.

41:20

Yeah. So, what I'm seeing RFM do is that they're creating this very dynamic collaborative intersections with people like yourself, which immediately enhance their capability? Yes, you know, provide them with resources and data and information on the ground and relationships. And immediately expand their existence, their knowledge, their understanding their learning. But at the same time, you know, something happens in that you're able to transform and grow your organization too. And there's the mutually beneficial intersection of interests that start creating something else for everybody. Yes, that I'm interested in exploring. I think that kind of the, you know, the next phase of the research is to see the magic of what sits there. And, you know, the, it's like a big multiplier for everybody that little point of connection. So, you know, having said that, how would you describe that? You know, if you had to say, like, well, this is how we're experiencing it, because I haven't asked Rohan and Wardy yet. I had this fascinating conversation, Kate Andrews yesterday. Yeah. And so, I shared this with her. And she looked very excited about, you know, the concept. So, I'm really, so it's new, it's a new little baby that I'm trying to understand a virgin question here. What do you think this is?

43:14

All look, I think it's what it creates is more equitable wealth distribution. It's, you know, utilises niche specialties more effectively. You know, the bottom-up approach is what drives us. Along the way you build up local communities' skills. You're just not reliant on importing, fly employer workers that, you know, that's the ultimate goal is that communities become self-reliant, build their skills up, get more local employment on the ground, provide more opportunities that wouldn't have been there in the first place, because we've got these synergistic relationships, there's co-benefits. So, you know that the co-benefits are Regen Farmers Mutual, we trust them. There's a lot of sharks out there. Because, you know, they're

doing co-design for a reason. They're going to be, they hopefully finding markets, and people want to work with us that a lot more than people. You know, it's a way of auditing through that. And, you know, just make sense if you look at what's happening around the world. There's this movement of community wealth building, you know, social enterprise, it's happening in Boston, it's happening in other areas in the USA, in the UK, in Australia. In Scotland, they've got a minister for community wealth building now in Scotland, so you know, where we've got a lot of wind farms and renewable energy, instead of just the landholder getting an income for that, I mean, they can have to look at what I do with the wind farms at the end of their life as it's not that whole cradle to grave policy in a lot of things, that's why they're not buying the land first place. But the community impacts are borne by the community. So, they should be benefiting from the natural endowments that they've got to go back to benefit the whole community. So, six to 7% is mandated of wind farm money income goes back to those community, where the wind farms are. We don't do that in Australia. Okay, again, off the topic there, but when you can start generating some diverse income streams like that, we're impacted by reform processes in lots of ways from sort of city-based decision-making, we've got to do some structural adjustment here, we need capital investment. Then you get once you get more proficient, you know, going from your blue-collar workers to your white-collar workers in the professionals in, then they're the ones that can help our new markets, drive things, do good funding applications, strategically think about environmental scanning or future cost scanning, to, to position the community at the front of the bell curve for the next change. And not just go it will, it will just wait and look over the fence and but the back of the bell curve when it's too late. Take advantage of those new things. So that's what I like about community wealth building, is not just be extractive but have opportunities for community, you know, whether it's community banking, or whether it's community energy hubs, so you just not relying on corporates, but it more empowerment, self-reliance, but if you look in the Dutch model later, you know, they don't necessarily try to just look at things especially producers from... they work with other businesses that have CO benefits. They call it that, and they want to stick it that not just be for the half assed doing everything from transport and logistics to storage and distribution to manufacturing to marketing, that they look will specializing in that, and they get a lot faster growth. And I think that there's an element of this. I mean, we've got trust and respect to the community. And we take something to them, we've already done our due diligence, as best we can, hopefully Regen Farmers Mutual have done their due diligence and governance on whatever they going to do. They've got the legals, you know, it's solid. And

then we can generate employment on the ground, to do the verification, auditing, checks and balances, to make sure things are happening to support that market product. Yeah.

48:14

So, what's also interesting to me, is the role of technology, and then how that is also probably helped scale quite quickly. Like, you know, the use of zoom and the Miro board seems to have been a very powerful tool, to capture learnings and then to templatised, and then to hand it over to the next experiment to refine fine. And then obviously, the Regen Digital platform and creating the digital twin. And now the project with AFI and McDonald's to start linking to supply chain verification. So, the technology seems to have been a powerful underpinning of some rapid and shared development. What are your views on that?

49:08

Yeah, definitely. The technology is great, you know, support some facilitation process. But, you know, someone like Andrew Ward is a brilliant facilitator. You know, without that, you can't cat herd away and you can't, you got to such a long term, protracted process, keeping people on that journey. You know, you've got a really good specialist skills, but you know, it was always as part of the process as well. Okay, what are they going to come up with next as a as a tool to use next and what else I got to try and get out of us all, you know, and I was always sort of amazed that they had that foresight to think about what they needed, and the process of doing it. And I think this comes back to ethical fields, a business that works in that space, we're doing a course with them at the moment. They've you know, they've set up set up regional food plus marts, original branding of produce, and their community wealth building training programmes, I thought they used to facilitating some sort of unique or different ways of looking at business models and seeing what are the needs of the future for people that want to do things a bit different than just the status quo? You so I think if technology and their facilitation skills and knowing what tools to use.

51:04

So, I noticed that we have five minutes left before Microsoft shuts down on us. So maybe my last comment on maybe what RFM have done that you think is like key to their success to date. And then next step for them in your view.

51:35

They have got diverse views, which is great, because you need that to strengthen something. Co-design process is not always easy going on a journey, you don't know what, where it's going to go. But you know, they bought, they've been able to prize out lots of highly skilled people in their co-design process. So, they themselves have respected networks, probably

because of where they've worked in the NRM space and everything else. So, you know, they got an independent chairman, who is highly skilled. And now, you know, they've got the journey of getting a transaction space. So, they go on and look for some impact investors or some crowdfunding. They've got a bit of money there, a bit of seed funding to pay for themselves a bit later, to continue that journey. And I think now, it'll start taking it'll take off, but there's a lot of maturity in the markets that they're trying to get to, because it is so new, that there's a lot of, you know, they're getting ready for places to catch up. So, they've got something ready to slot in.

52:55

Yeah. It's like they're creating the product so that when the market is ready. - boom its business!

53:02

Yeah, it's always hard to get that intersect, as you say, right at the time when you need it. But if you haven't got something here for the market to buy, well, it isn't going to happen. It might be one or two years too late then.

53:17

Yeah. And just quickly, like next steps. I mean, you know, you've said, like the gearing for markets, but are there any particular things that like, maybe the steering committee, does that need to be changed a little to kind of add new inputs for next phase?

53:37

I'm not close enough to that. Wardy's asked me to come on, again. I've been off for a while. Maybe it's a maybe he's looking for infusion of some new ideas and just have different thinking about where some potential might be. I'm not really sure.

Farmer and Agtech entrepreneur, Members Council

People who don't know don't do what they say, and you know my personality is if you say we're going to do something, do it. That's why I get on really well with Andrew and Rohan. They're doing the right thing by people, their ethics are in the right place, their engagements being completely honest and transparent. And they've also been very quick to admit when they've got things wrong. So from an ethical perspective, they're very impressive.

00:46

No worries. So, Stephen, maybe we should just start by you telling me a little bit about yourself and how you happen to become involved with RFM.

00:59

I'm a regenerative project developer. So, we develop everything from as you can see, behind me, I build tech solar farms. So, we combine solar with horticultural production. We develop Biodigester projects, battery projects, so they can work for vehicle charging, essentially anything to do with cleantech opportunities for farmers. A lot of our projects are based in peri-urban location. So, on the outskirts of town, we've got social capital gains built into every fibre of the project. My expectations of my partners are that they're ethically aligned, which has been the biggest challenge. So really, from our point of view, we combine everything from renewable energy with regenerative agriculture, landscape wellness, measuring the social impact, creating opportunities for people, creating equality of opportunity, which is a burning desire. Because a lot of the current renewable energy transition has been really aimed at people who are either well off or corporates, as opposed to people who have been left behind. My own personal politics are middle of the road. So, I'm not a mad socialist, just to be clear on record. But everyone has to have a fair go. And I'm a strong believer in collective betterment. Where people work together so that everyone gets lifted up and nobody gets left behind. So, I am actually sounding like a socialist, but I'm not I'm actually an enterpriser, certainly a very positive enterpriser. How can you help everybody in the community if they want to be able to help themselves? How do you provide that tapestry where they can actually get a leg up? Does that make any sense? Sounds a bit wanky,

02:46

Makes total sense. And it sounds like you're a perfect fit with RFM. So I'm really curious to know how you connected with Wardy and Rohan?

03:05

I've known Andrew for five or six years, watched what he was doing before. We're involved in soil carbon sequestration projects, whether it's tree planting, soil, carbon, measuring land wellness. I have been working on a thing called I suppose its soil star, or land wellness for the past five years. The reason we've been doing that is that everybody we talked to, they all have got the holy grail of how to measure soil, carbon, or natural capital. And you're sitting there quite innocently going, none of these people can actually understand the other person. They're not actually using a consensus-based model to understand what it actually means, they're using bizarre metrics, or surrogate metrics. And I come from a property development background originally. So, my background is you take a one-star building, you turn it into a seven star. Just by saying that you will understand straight away that that makes it more energy efficient and makes it more luxurious, it gives a better return on capital on your asset is maintained. So, I've taken that basic model and applied it to landscape wellness, saying that you should be able to look at any piece of land and say, where is it as a one star or a seven star? And then using a metric system define how you could improve that using a consensus-based system to say, if it was seven stars, what would it be? So, it's not just the carbon markets, it's not just the ecological people. It's not just the indigenous people. It's a group of people actually saying if this was a, you know, the Garden of Eden, what would this be? And then all of that you can reverse engineer to say, well, at this point in time, it's only a one star, which is fantastic, because you know, you've got the scope of going to seven stars. So that's really how I got talking to Andrew and Rohan because they do a lot of work around the intellectual property of data. And this is where we would have massive disagreements, because they're still going through that slightly naive view that data is an asset that farmers should own. My view, again, this is only my humble view, that if people and humanity pools our data together so that everything go further faster, it's a much more positive way for human beings to actually understand quicker, what they should be doing to regenerate the landscape, that one piece of thing that keeps them alive in this bloody rock, as opposed to monetising data in a way that then creates perverse outcomes. So, you did ask the question, so I will answer. I would say, you know, what am I politics, I'm a humanist, we're all showing a bloody, and everything you do in South Africa or in the UK affects everybody else. I mean, I grew up in the 70s, probably like yourself with Isaac Asimov and science fiction that explained these concepts that we're now seeing really perverse outcomes. People using the carbon markets as if it's the only metric. And they're not looking at the hydrological function, and they're not looking at the consequences of the global market. So that's how that's why I've got really positive conversations with Andrew and Rohan, because they're thinking about, how do you actually fix a system that is ultimately destructive,

because everybody's chasing a monetary value and endless growth, which is actually completely at odds with an ecological system? Because you can't have endless growth is you run out of stuff eventually. I mean, I'm an entrepreneur, I grew up with Thatcher in the UK. So, I mean, I've got that sort of real practical, how do you make it work, you've got to have money in the system. But the system feels personally totally at odds with itself at the minute. The amount of soil has been lost in Africa, the amount of soil that has been lost in Australia, and once it's gone, it's gone. People seem to have no notion of how quickly you know, 30 or 40 years is going to disappear. I used to have to look at the stress and the Middle East of the minute, and quickly the whole global economy turns to stress. So, what do you do?

07:28

So, what is your role in RFM? How do you contribute to the development and then I also just want to show you just how Wardy has explained to me the stages of development. And then I'd really like to get to inputs to, you know, the key moments in those stages. But what do you contribute to RFM.

07:51

I'm on the interim council. So I turn up every other Friday, to listen to the progress to give them constructive and robust feedback, to point out things, some like perverse outcomes, to talk to them about the potential impacts of the banks using AI to change the loan ratios because your landscape has degenerated as opposed to regenerated, alerting them to things around say Taxation laws, that if you use part of your farm as a carbon farm, then you potentially can lose the capital gains advantage, all that sort of shit, I'm sort of like the voice of an old woman, because women, like it's a common sense. Have you thought about this? Have you thought about how if somebody's not part of that system, how they could get abused by a system with actuarial consultants using the data that you're building in your digital twin, to actually oh, they can't do that, because they can't spy. I said, I got enough examples of stuff around the world using AI to identify cocoa crops and cars going to supermarkets, looking at futures market to know that these sorts of people can't help themselves. So, if you make the data only partially available, they will make their judgements based on what they can see. So why not just informed the whole bloody discussion in a way that it's defensible? So that's part of my role, right? So, I've sort of forced my way in and said, look, for fuck's sake, you're all being very nice and lovely and shaking hands. But I come from a world where I'm dealing with Dutch investors and Singaporean investors, and they have no love in them at all. It's all about the money. So that gives you a perspective on, make sure you don't get abused by that route that you're going down because what they're doing is ethically correct, but they are quite naive is

not the right word so don't repeat that, but it's they have a very gentle belief in the well-being of humanity. My experience of people is more what you're seeing in Gaza and Israel at the minute. Its people are not terribly friendly when the shits down. So that's what I bring to the conversation. You are from South Africa woman; you should know all of that sort of stress...

10:14

Completely. Yeah, this is another part of the world. And that's another big story with lots of swear words in it too. So

10:24

No one again, depends on who you speak to. And their understanding and their lack of understanding. And looking at the degeneration that you're seeing in your own economy. And a whole pile of stuff that we don't want to talk about. But that's, that's human beings. So yeah, you asked me what I really conversation, it's not level of realism, but it's also I bring, I bring a genuine love for people who are decent, how do we make it better? And how do you help the banking system actually work for people rather than against them? And how do you create systems that inform people's decisions with data, as opposed to what you're experiencing with your power cuts in South Africa? Because nobody's in charge of the bloody place!

11:06

It's all been extracted, oh, it's such a huge extractive form of governing in this country. Yeah. So, I want to share my screen with you quickly. So yeah, in my last conversation with Wardy, it, you know, I suddenly got to understand his core stages of development, which Wardy and Rohan, call forming, organising, funding, and operating. And that was where that was the core design phase, and setting up the mutual and Regen Digital, and then the product-market fit through the Traprock transaction, pilot. And then the scaling, which is post conference, which is all starting to happen now. So, the big landscape, the large landscape initiatives have started to take off.

12:10

yeah, sorry to interrupt, just on not the conference that he held at the zoo, was one of the best I've ever seen. Because you were there, I was there too

12:19

I was I was online watching; I was on the Miro board. The reason I thought it was really good. He was trying to do your one perspective country in another. But what you very quickly saw was consensus and a complete lack of argument. I thought, this is bloody brilliant, because you're actually allowing people to voice their concerns but also make positive suggestions about going forwards.

12:40

Yeah. No, I thought it was amazing. And it was for me, you know, in terms of orienting in a context, it was very, very valuable. And meeting people was, it was worth the trip over there. I got horribly sick, made everyone sick, came back and spent four weeks trying to recover from a terrible cold. Okay, so that was all worth it. So, what I'd like from you is really just to maybe look at each of these stages and speak about what you think were significant moments in these stages. If there's anything else that I need to capture about these stages, that is significant. Yeah, you know, to build a more complete picture of development process of contribution.

13:44

I think once again, one of the things that they've been doing right is making sure there's enough people on their interim council who have got point of views, so they don't have people who are just nodding their heads and turning up every Friday to say this is great. You've got people asking awkward questions, which is really healthy. And I say awkward, not from the point of view of being awkward just saying, have you thought about. Are you trying to do too much? Where's your financial services licence? Because if you give financial advice, without it you could go to prison. People asking about, you know, the scale of what you're trying to do what? And then I sent him a thing a couple of weeks ago called first principles. Just understanding very quickly, if somebody spoke to you in the street, what is it you do? And what business are you in, you know what problem you're solving. So, I find that the process has actually been very thorough. And they have been very keen and open to actually listening to other people, even if they didn't necessarily agree to sort of second guess themselves. Which is rare, particularly startup because everybody has this complete belief that they've got it, whereas Andrew and Rohan are keen to be wrong, which is rare. That's why I'm putting a fair bit of time into what they're doing because I believe in what they're doing. They are farmer-centric. They're trying to create clarity and a very confused market. A lot of farmers here in Australia have got completely confused because there are so many carbon market shysters out knocking on doors. And the beautiful thing of a cooperative or a coop like this is that you know, you're working with farmers who are trusted or people who are trusted and it's almost like a Viking circle. You know, what if you do something wrong, people will see you. So, I'm a bit of a fanboy.

15:48

They also seem to be really good at recruiting or mobilising key people, institutions, resources. What's your comments on that?

15:59

Because they have a remarkable vibration, that people can sense very quickly that they're earnest. They're very good at actually getting into places where shysters can't, because Andrew is really well known. His father was well known in regenerative AG. So, he's got a natural level of respect here. But he's also very, very good at showing other people respect. Which is a subtle difference a lot of people don't understand. If you're asking people to listen to you, you've got to be able to demonstrate in a meaningful way that a politician, you're not speaking to them to use them, you actually think you've got something to help them. So again, they've managed to get into Canberra, they've been taken seriously by the National Farmers Federation. I'm the current president of the Victorian Farmers Federation provincial branch. So again, we've got access into that network of people in Victoria and that's 4 500 people. But there's something about Andrew and Rohan's gait or presentation, you just know, because there's something wrong, or they're slightly fumbling about the way they do it, you know that they're actually genuine. It's not super slick. They don't have all the answers. They like to tell you we don't know quite what we're doing. But we've got some really good, that's we've got the digital twin, we've got this, we've got that we've got this amazing bit of financial support, we've got these great people. And that just sort of builds a reciprocal trust. Which is unusual.

17:31

Yes. It's remarkable. It's remarkable. So being at the scaling end of the development process, it's it's really getting serious now, and, and I'm sure that's going to require a lot of new learning, and a lot of new collaborative effort.

17:58

And I think that they have demonstrated so far that people are starting to be more willing to understand that a collaborative model actually allows those technical platforms to accelerate faster. And also, the fact that they're willing to be wrong, which is actually one of the biggest skills in life, to actually say, I don't know where we're going. But at least I know, I don't know everything. And we're willing to try all that stuff out. And the platforms that are using the digital twin, you know, they've got some of it, right, some of it still clunky, but they're testing with people. My one concern is that they need to be very clear on the structure they're trying to create, because they're starting to take on big bloody projects, which require horrible levels of administration and really boring stuff that people like Andrew probably don't thrive on. He's a creative and Rohan's a creative. I mean, Rohan's got a financial background, but that sort of stuff is work and horrible work. So, it's going to just be interesting to watch how they managed to keep the organization light and lean. Because the key thing to this is to be able to change and evolve as the market change and opportunities and AI and not making assumptions about

AI that a lot of people are. But it bodes well, but I'm just concerned that they need to be they need to have some grown up people as well. Boring people. Looking at operational flowchart, what's if this happens, what do you need to have in place? Do you need to have 40 people in a call centre? Do you need to have people who can do all this admin? Because human resources are managing bloody people and paperwork? I mean, that's really boring, but it's part of your business. I probably think too much it's probably part of my problem.

19:55

No, I'm sure that's why you on the members council is because they need people like you to help them think through that detail. So, Regen Digital, where is that at? Because it's the one piece I don't really understand completely in terms of its process of development and its state of development right now,

20:21

I can't really answer that, because I don't really know where it's at. They were using Farmlab, as one of the digital twin tools. I think they were trying to recruit local agronomists in the regions so they can actually have a local rep, who could set up the digital twin for people. The original bit of software that I saw, there were a couple of layers to it that were really clunky. And I think they were working on how to resolve that. So, when you filled in your details, if you then tried to go back to fix something, and came back to the page, where you're on the information you put in had gone. And that mean, that's, that's a technical browser issue, it's not a big deal. But you sort of you fill in an online form page 1,2,3,4, at four, you go ah shit I made a mistake, you go back to page two, and then you go to page three, and it's not filled in and then you've got to start again. And then if you're dealing with farmers who got limited amount of time, patience, they're fed-up filling in bloody forms. So, you've got to make this as you know, click, click, click done. So, I can't really talk about Regen Digital and where they are at the minute. I've been more involved in the other stuff, where they are going with projects, insurance and tax and boring shit.

21:47

Okay. So um, who would you say - obviously there is Rohan and there is Wardy, who are other really important contributors to their success today.

22:07

Jim ... I don't even have a screenshot he appears on it. But everybody else who's there, actually everybody brings something to it. Some of the people will say nothing for the entire meeting. And then they'll say one thing where you go, that was useful. Other people, like I can sit in the whole thing and say nothing until somebody says what do you think? But then they'll get a

torrent of feedback. I spend about 90% of my time listening because I already know what I know. I'm trying to understand what they're talking about. The other contributors they have, Jim's a cattle station manager, very, very smart person. They have other people who are working on some of the technical stuff. They have a sheep farmer on again, who's talking about the reality that sheep are now worth less than a bullet in Australia.

23:06

The whole the whole world has gone mad, so part of carbon farming requires your livestock to have a value

00:06

Hello, can you hear me now??

00:09

Yes. Hooray. Okay, so I lost you at the sheep farmer.

00:16

Yeah, um, I nearly lost my voice, believe it or not. Beef and sheep in Australia have gone down by about 50, which now change the dynamic. So again, it's useful to have real livestock farmers on that council, people that are actually farming. They have gone to pains to make sure that they have got people on the calls who actually are farmers, those farmers are dealing with cattle and sheep, which are part of the carbon farming circuit. The fact that those sheep are now worth less than \$1, means it changed the dynamic. But what it means is that they are keeping the models active, so they're not making assumptions, so that again, that's something that's really positive of what they're doing. Right? There's another lady in Holland that I need to connect you with, I can't pronounce her name. Wardy talks to her quite a bit. She was one of the first people in the world I ever spoke to understood about pooling data. Most people have got obsessed with the old John Deere, Salesforce. Data is power. Yes, it is. But if you keep it to yourself, we're going to go a lot slower. You think of satellite navigation in your car. The fact that we share that data, you know, where the traffic is, you know, where the problems are? It all helps. I say Andrew and Rohan's challenge - they still believe that that's a revenue stream. So, this other lady is worth speaking to because she had the wit to understand. And I'm saying that with all due respect to everybody. You know, it's a bit like the information when you buy stuff on Amazon or eBay, you know, suddenly the internet knows what you're interested in. And that's perfect. And so, you're advertising as user specific, rather than 85/90% of advertising is just shit thrown at people, about stuff that you would never be interested in the fact that we now use pool data to understand that you're only interested in Lambos or

motorbikes? Well, that that's a pretty good outcome. So, they've been very good at bringing people into those conversations, who think differently to them, which is really good.

03:11

Given who they are, and where they going? How different are they? How different are they two other organizations have their kind of playing in the space? What would you say makes them unique and what contributes to their progress uniquely,

03:30

okay, two things, they're not operating as an extractive corporate, they are not acting as an NGO, we care about the world, they actually do care about the world. And that's bloody clear. We do a lot of business with not for profits, and most of them - it feels terribly disingenuous. Everything Andrew and Rohan are doing actually feels that they genuinely are trying to make it better for a broader range of people. Their transparency, and ethic just shines through everything we touch. And it's quite hard - I couldn't put a metric on it, but you just get that vibe off them. All the other bloody NGOs who have dealt with, they're planting trees in Africa and they're all flipping zero in the world. You just know that 98% of that money is going to pay massive wages for people driving around in 4x4's patting people on the heads and they're doing a great job and offsetting carbon for Shell. Whereas what Andrew is doing, and what Rohan is doing is basically saying we're trying to fix the planet but also give people long term livelihoods on their farms creating more resilience. We would prefer not to sell those carbon credits to polluters who can quit their own internal reduction and footprint. They're trying to actually make a real, genuine difference. I had to go in front of our class of eight-year old's. They could look them in the eye and say we're giving it a good shot? It's a fundamental difference.

05:04

So, I'm also trying to understand the model that's emerging here. Like, how would we describe it, it's not a, it's not a pure entrepreneurial model or business model. But there are some key things that start defining it in that at this point in time, they are entrepreneurs tackling a big global issue through a pointed solution aimed at bringing farmers into the environmental markets and benefiting from that, but at the same time addressing a huge climate imperative. So, they're on their point in is entrepreneurial, but they're there the mandate that they've taken on, is much larger than just entrepreneurial interest. Secondly, so that's the first thing about the model that I'm seeing. Secondly, is that work of this kind requires huge funding and investment at this point in the day, but I'm wondering whether this also isn't the nature of the model that is emerging that maybe it will always require funding and or investment? Do you know what

I'm saying and that, in that this might be a new form or new entity that is collective where funding is, is an aspect of the operation or investment is an aspect of its operation? Eventually, once the supply chain side of the model comes alive, you know, that that will be another source of investments, and, and opportunity in the model. But I suppose I'm going around us a very long way to ask you, how would you describe this model that's emerging? What, what does it look like or feel like to you? The other, the last thing, too, is that it also feels like an ecosystem model, that becomes localised with very specific local capability. So, each ecosystem in each landscape impact programme might look a little different, might be structured a little differently. But it definitely feels like an ecosystem model is starting to take shape.

07:57

It's a natural capital model with social impact built into its core, that's adaptable to its specific application. So, it's not a unified, it's not like a carbon farming model, where it's just, we want to make carbon, that's it. It actually, it's like, it's like part of nature and actually adapts to what it needs to be. That's why it's really good. And that's why they're allowing its flexibility to evolve into what it needs to be. And where I think it will ultimately get. And what I keep saying to them is that the actuarial consultants and the insurance companies will ultimately be looking for tools like this to reduce their investment risk. And that's where you're going to get that catalytic conversion, people actually going the way these guys are actually doing it as the only bloody way it should be doing because it reduces our insurance and climate, prevent risk. Anybody else you're going to do it, you've got to pay more for your money because you're actually quitting risk that's unnecessary. So, this is the new normal. So, having that metric system that is understandable by bankers and actuarial consultants in a digital twin, where almost live you can understand what's the current risk investment on that farm? What's the farmer doing? How do they manage the biodiversity. What's the natural capital measurement? Are they using biometric measurement to understand the wellness of the landscape? If you were going to Mars to set up a new colony this is how you would do it. That's so bloody stupid. Yeah. It makes total sense. And until 1945 that's the way the UK farmers would have actually managed the farms that they left hedgerows, and they made sure there were enough native birds to manage the insects, and other water was drinkable on the farm. Then after the Second World War, when Monsanto and Bayer are people seem to lose the common sense that Andrew and Rohan are trying to take people back to. You've got to know what states your water, because it's an ecosystem that you need to be in good health to make a living from. It's bloody obvious when you talk to 10-year-old kids that they will literally say to you, but we don't understand why you are poisoning stuff and then complaining that everything's dead. So, I think they're

on the crux of something that is more than self-perpetuating. It should become the new normal, because it will appeal to those actuarial consultants who are trying to de-risk investors risk.

10:36

So, it also feels like you mentioned earlier on it, this is a space where everybody's speaks a different language around similar things. So, it's really hard to, you know, to come at it with a shared understanding. To what extent you think RFM and Rohan and Wardy are contributing to making sense in an uncertain, unknown, emerging environments.

11:06

They're starting, they're starting to do that they're starting to talk to others. A young technical person who apparently is a whiz with AI, which is great. The work that we've done with consensus building in the states. The reason I mentioned people not understanding is there was a really well-known meeting, and we were out with USDA, and you had ranchers, and you had bankers, you had investors, environmentalists, and they might as well all been talking bloody gibberish, because they all had a different vernacular. So, if you said a piece of land looks like it's in good condition, you know, your view would be different to an environmentalist or an indigenous person. And I sort of stuck my hand up and said, you know what, you need one common language that allows everybody to understand that it's a one star or a seven star, or that you have a zero to 1 000 showing all the different coefficients. And what you do to get people to agree with each parcel of land. What are you looking at the water quality, the biodiversity, the carbon in the soil or the sequestration rate, the micro, all that stuff? The birds, the bees, the whole bloody duck, then you know what it can be you reverse engineer, Andrew and Rohan are still at an early stage of actually, with all due respect, getting the simplicity of the idea. Because everybody's focusing on carbon sequestration, they're talking about how healthy is a landscape, and health is different to wellness, wellness is the bigger thing where you go into a native park that hasn't been molested, you feel relaxed? The place feels good. But you can now do that with all sorts of sensors to understand what should be there. What's the respiration of the bacteria? What's the fungi, bacteria ratio? All that stuff can be put into a machine learning system, not necessarily AI. And I have warned them that AI, don't take this the wrong way, but it's actually like a bunch of old women talking to each other. No, I mean, from the point of view of, you know, chattering people, because at the minute it goes to Google and goes to Bing, and it scrapes a lot of data and puts it together. So, it it's not an intelligence the way people think. It's not like a Delhaize sitting there going no, the answer is this. It's actually 8 out of 10 people said soil carbon was good, 8 out of 10 people said clean water is good. So, the answer to wellness is healthy soil and healthy water. And it's actually quite naive

and it's at this stage. Whereas machine learning is actually much more algorithm based. If you've got s and that surrogate indicator tells you got that you've got this amount of co2 coming off the soil, which means your bacteria are doing this, that that's a mechanical algorithm, which is much more likely to give you something that's scientifically robust. Andrew and Rohan are still at the early excitable stages of what's possible. They haven't maybe gone into the valley of death yet, which is where you get overwhelmed with bloody people and bloody ideas. And then you start to come out the other end with stuff that maybe is practically applicable, but they are very open to those conversations. They're quite happy to push back and say no, you're wrong. We believe because of that. So hopefully they don't get to see this video because it'll be really embarrassing...

14:52

to start wrapping this up. What do you think they have got that is good. and solid, and what do you think they still need to do kind of in the short term, and then in the medium term,

15:08

they have to work out a way to communicate this to farmers very quickly, that they are actually technically farmers and that the power of a collective isn't a socialist idea because Australia's really weird because of the tyranny of distance, they have lost their European sense of kinship - you're working with, with neighbours. So, the minute people start talking about collectives and co-ops and working together, it does cause a bit of a cultural confusion. In my experience, because I'm from the UK, so we're still much more cooperative based. It's natural to us, if a farmer across the way gets a flat tyre, you lend them a tractor, or you help them. Whereas here, it's, they're much more like an American society, where they're quite individualistic. Their communication last year with Regen Digital was it was a little bit confusing. But again, they're learning on the hop. And they're giving complete open ears to what people are saying to them. So that which is really good. They've got a really good narrative around where farmers grew up for farmers. And they've kept that story simple. They're exploring all the data sources; they are exploring the carbon markets in a fair way. They're being completely transparent about what they're doing. And they're getting runs on the board. So, you know, I am not saying they're doing everything right, but they're not doing a lot, you know, badly, they're doing some stuff very, very well. And they're getting a lot of quiet support from people like me and other people who are much further up the chain in the political world, and CSIRO are checking, you know, the government science agency, so a lot of people looking at what they're doing. And that's no mean feat when you're trying to do a startup.

17:03

So, maybe to wrap up, what do you think is next, what are kind of the next steps for RFM

17:16

They need to probably start working on their online experience in a way that is super simple. And they need to have more videos, explaining because a lot of the generation of people who are willing to do this are probably 45 to 60. And they just don't want to read a lot of verbiage. So and so did this necessarily benefit them. These were the challenges... This is what a natural capital market is, this is what a biodiversity credit is. So, they've got a tiny bit of work to do in that space. But I mean, look, they just need to keep the ball bouncing, you know, that thing at the zoo was bloody brilliant. But again, more people need to know about it. There's a lot of negative press at the moment because of the ACCU was at \$53 , Australian carbon credit, and it's not 34 because they there was a big investigation into the authenticity of a lot of the avoided deforestation, if you have ever heard that bloody term - we will give you a carbon credit for not cutting down something you weren't going to cut down in the first place. But what that's done with a lot of farmers is they've gone you know what we're scared of this. We're also scared that Coles and Woolworths who buy our produce now want us to be carbon neutral. So, if we sell our carbon credit, we then are no longer carbon neutral. So, there's, there are a lot of terribly confused people in the market. And what Andrew and Rohan have got is the ability to say look, we're aware of your fears. This is how we're actually helping you. So, look, you know, I don't have shares in the company. I'm not completely blinded by them, but they're definitely doing it the way it shouldn't be done. What the problem is capital to make sure they can employ enough people to actually do some of the dare I say, grunt work, which is the administration and shitty work that entrepreneurs don't like to do.

19:25

Yeah. I've been I've been wondering about how they get stuff done, because it's just the two of them, you know, so like, where does the capabilities that where does the, you know, is the capability development just relying on contributing players or Landcare organizations or you know, NRM organizations. Where does the capability set because everybody brings, you know, specific contributions to the solution. But what RFM are doing is they create new links between what was previously done separately. There is a new capability that that overarching is the separate contributions by different organizations and people.

20:21

But again, that even managing those interactions requires skill. It's human resource management. And you're also vulnerable at any point for one of those links in the chain. So, they've got to make sure they are robust, what happens if what happens if that, what happens

of Landcare suddenly decide they don't want to work with us. Or let's say you're relying on volunteers in the middle, let's say they get really fed up. But again, that's just me being an old man. Because you know, look, I'm a member of a number of volunteer groups, and that's great for about two years, and then people get really just tired and fed. And if they don't feel valued, they say, you know what, fuck it, I'm going to play bowls. Do something else. So, they need to make sure they've got enough financial resources that they can outsource some of the minutia, and that they have enough systems in place that if, let's say something happened to Andrew, that the whole thing has got a model, a systemised model.

21:23

Would you say that that's probably a next phase of development? Up until now, that hasn't really been necessary, but maybe it isn't important. Next phase of?

21:34

Yes, building. There's a really famous book called *The eMyth Revisited* by Michael Gerber. And it's about building your business so that you can work on your business, not in it. And it sounds really condescending, but it's a fundamental way of looking at your business. Because if, he had a heart attack or fell off his bike, the whole thing would become a headless. He needs people to run this business as if he's in a wheelchair. I sorry, to be really blunt, but

22:02

no, no, no. Yeah. So that would be a key risk to the future.

22:12

He's still young enough to think he's invincible. I'm saying that with all due respect, because they're probably early 40s. So, they still believe we've got all this time ahead of them. And all attacks. I mean, I've had a number of friends die of cancer recently, and I tell you the whole bloody world changes. You've got to have a business that's got a system that if he even wants to go on holiday, that the thing has got a system that somebody else can understand what he was doing. He might say, well, I've really got that. Will that be great? Can we see it?

22:41

Yeah, it makes me think of how the Miro board and zoom and LinkedIn have been like key technologies that have underpinned their success. Do you have views on that? What has been your experience of that?

23:02

Try to do this 10 years ago would have been impossible. The fact that you can have a Miro board was 75 people on an all chattering away and all doing their thing, and it's all dynamic. And it's all public. And the fact that on LinkedIn, the ability to bring in people into the

conversation all around the world. And on LinkedIn, you tend to get constructive feedback as opposed to egotistical nonsense. So again, it's a really timely moment where people are still conversing in a friendly way. Facebook, again, Facebook is dying on its feet. So, let's focus on LinkedIn, because you'll get professional people. I put a post on LinkedIn a couple of weeks ago, which was of soil armour. So, it was just three bowls, one with grass. One was some grass on the soil, the water running through it, and over 550 000 interactions with it. Wow. I said to Andrew, you want to you want to look at this because who would have thought people would have been bloody interested but more and more, I am getting emails? Can you tell us more? What are you doing? What's Regen Farmers Mutual? What's going on with soil? Why is that important? Well, because all your chemicals that you're paying for washing away, along with all the bloody squirrel, and you've only got that much soil and once it's gone, you're buggered, you know. And it also means that you're talking to people in Bangladesh, and you're talking to people in Pakistan. You're talking to people in the bloody back end of Africa, with all due respect, who have these tiny little farms, but they're an active conversation. It's really bloody gold.

24:43

Powerful. Isn't it?

24:44

There's nobody in the middle of curating, don't speak to these people because they are not important. Everybody can have their bit. So, as Andy Warhol said, the 15 minutes of fame, but it's amazing though, because you're getting all these people who work in say data science or people who work in ethics, getting involved in conversations that they would never have gotten involved in - storytellers and everything. So

25:17

yeah. So, the other thing that seems to be timely, too is the AASF, the Australian Agricultural Sustainability Framework that were that Richard Heath and company, do you think those kinds of frameworks contribute to creating greater clarity in the environment or helpful or what's working?

25:57

When you go into, you know, Johannesburg and you look for a nice hotel, you look for a five-star hotel, you don't need a fucking framework, you just know it's a good hotel. Human beings, they have to have all these fucking frameworks where nobody understands what they are talking about. Look; it's probably a good thing. But I just despair at the complexity. It's like accounting for nature. Everybody needs to understand what the hell they're reading to actually

understand instead of somebody saying it's one star or seven stars. You know if you want the framework behind that, fine but it just seems that yet another lest of bloody hell. You're talking to farmers who want to know, what do I do next? You're talking to investors? Is this a good investment? You talking to communities? Is the land we looked after well, well here's your framework. And that like, that's just my view, Like, if you look at the car safety rating system, you could look at a Mercedes S Class and know that it's seven-star safety Incorporated. And you will be fairly comfortable that it's been vetted with airbags and rigid clap selling, etc. You look at a very small car like a Nissan Micra, that's also seven stars. And you know, both of those cars are relatively safe. If you look at a one-star car, you know not to buy it. You don't need to say the full framework, have a bloody PhD and understanding, you just know. That's just my humble view as a human being tried to understand a complex world.

27:32

Yeah, I totally get it. So, I think that's what I really wanted to explore with you, Stephen. And it's been a fascinating conversation. Thank you. You've given me so much new material that I really do appreciate. And so maybe one last question, is there anything else that you think I should know because what why I'm looking at RFM is I want to understand, in this scenario, there is an innovation ecosystem emerging. And if there is, what does it tell us? How that comes about? So, do you have any comments or thoughts about RFM in that context?

28:17

Yeah, so they're using a biomimicry model. They're looking at the way nature would automatically get things into a cohesive bound. So, it's all self-fulfilling. And it's the only thing I've come across where people are thinking like an ecosystem. You meet all these technical people, and they talk about digital ecosystems. They're not understanding the human centric aspect of it. Whereas Andrew and Rohan are attacking that right to the core, they're actually replicating using those biomimicry concepts. How do you make it actually good? It's a strange word, but that is good. And it's actually so bloody simple. You can't even explain it because it's just... you can feel it you could drop it into anywhere in the world because it's bloody obvious. To me, I would say look, if you want to record it, but the views the biomimicry model, the good thing about ecosystems that they're naturally because of the power of the universe, naturally in balance. It's only humans who've decided to try and live outside what's actually balanced.

29:28

question what what's your what's your interest in this and what do you do?

29:40

Right, so my background is marketing and stakeholder, strategic stakeholder comms, and I've, you know, had corporate clients over decades, and I became increasingly disillusioned with the capacity of corporates to bring about deep and meaningful change in society even though you know, they have all of these corporate social investments and, you know, they talk big but there's nothing on the ground. So, um, so I started with a film maker we did on-camera stakeholder inquiries, and we were hoping that that would start shaping conversations, we could start collecting conversation, so it could be fed back into strategic thinking in the corporate space, and that was also largely disappointing until my one and only clients now because I'm like, focusing on my doctorate asked me to go and investigate how and their global reinsurer Gen Re with their Warren Buffett's Berkshire Hathaway company, asked me to explore what people how people were thinking about the future. And I captured that on film. And there was a fascinating South African story that emerged. And they loved it so much, they asked me to do a global peace. So, I visited seven countries. And I spoke to the industry, of course, but I also spoke to academics and futurists, and incubator startups. And, you know, so there was this like, wide range of input and the story was the story of disruption and major significant change in the world brought about through technology and what that enables. And so, I was just hooked by this development, and that inspired me to do a masters. Because I wanted to explore this. I did a master's in inclusive innovation, but I kind of bastardised the subject, because inclusive innovation is bottom of the pyramid of innovation, but I wanted, I could see what technology was enabling was like this ecosystem, collaborative, collective innovation, and that's, you know, how I interpreted inclusive. And so, I got my master's, but I felt like I'd early, I hadn't even scratched the surface. And so, I immediately applied to do a doctorate. And to pursue. I just have this yearning to understand how innovation ecosystems can come about to address kind of a polycrisis of the world today, you know, so how can we as humans, and across systems and across ecosystems, how can we collaboratively shift the needle, but you know, bring about transformative regenerative change? And so, that's why I'm here. And I just think that I think RFM are fascinating case, you know, they just, it blows me away in terms of what they've made possible in such a short space of time as two human beings surrounded by what I think is, is a phenomenally talented, passionate, intelligent, community of contributors. You know, that enrich what Ron and body are creating, so there's, there's like a team of co-creators that hold Rowan and, and God and they, they seem invincible, but they, but they, they're and they, they make significant contributions, and they make a significant difference. So, I'm, I'm looking for a word to I don't know what to call that. You know, there

is in the literature word called teaming, which is like how individuals step in and, and, you know, add to a solution in some way, but it doesn't feel like teaming. It's not a team.

34:26

It's actually a form of involuntary reciprocation. And it's hard to explain because when you're in the company of these other people, everyone gets as bloody passionate as me. So, you've got a pile of people like me who actually are interested in thinking and being wrong, but also bloody well poking the bear and saying ESG and all the corporates have been doing all this greenwashing shite, but they actually don't get it. They're not using their heart. They want to be seen to be using their heart but they're not using it. What Andrew and Rohan are bringing out is that involuntary reciprocation. So, people automatically feel that they're part of the team. It's not, do you want to have a chat. So that's why I've been probably excessively frank with you. Because it's that sort of, this is actually a good thing. It needs to be championed, it needs to be bloody well supported, is too much time has been pissed away with people talking crap for the past 50 years. I grew up in the 70s. And my father was a biology teacher. So, I've had all of this in my heart, and we're still here talking to school kids about the same stuff. So, it's interesting, if you've been talking to people about, you know, their ESG and their fears of the future their thoughts of the future, how some people are absolutely terrified of the future. Other people say technology's going to save them. But they're sort of missing the core bloody humanity in the middle of we bloody well need to work together. Because you've only got 70/80 years if you're lucky. And we've created a hell of a mess in 100 years; how can we apply that technology with an ethics lens to create a positive future for as many people as possible? So, it's like an involuntary thing when you go into their company, where you actually realise I'm with people on my same vibration, like a kinship. And people are quite willing to be quite outspoken because they actually care. So, it's not one of those corporate things, where I've been to lots of ESG meetings where they all do a welcome to country in Australia. So well, you know, thank you for letting us be here. But you know, there's no real, how are you going to help renters? Are you going to help young people who are stuck in bad jobs? How are you going to reduce the cost of energy? How are you going to protect Australian soil? In a way, Wardy and Rohan are both there and people want to join their gang? But they don't why

36:56

I will call it the gang from now on. I've got a term for it.

37:01

But it is definitely a form of involuntary reciprocation. You know, when we speak to someone who's a salesperson, or a shyster, you can feel your skin crawling, and you're trying to move

away, they've got the exact opposite feeling you lean in. Tell me more. What was your experience? How's that working? You got that person to speak to you? Well, I can help you with this. You know, it's, it's quite bizarre. But you know, look, you definitely need people who've got that charisma to drive this sort of stuff. Because you're, it's either the corporate carbon market people or its bankers, or its shysters trying to do people into 100-year contracts to plant trees. These people are talking about how we fix the landscape so everybody flourishes and prosperous and they're going they're using the right language around prospering words, it's not ripping people often say that everybody gets a fair go. So that involuntary reciprocation is definitely it's like an FBI technique. They're using somehow...

38:12

And one last question, ... I'm keen to get your view on the Rohan Wardy dynamic.

38:19

it's hysterical because Andrew, is this sort of slightly, it's got a slight hippie vibe about him. You know, he probably sits around a campfire playing a flute and dances with magic mushrooms. That's the vibe you get off him. Rohan is more like a retired banker who's sitting there going, you know, I've got to be somewhere else. And but you know, he's a steady hand and he understands the ethics of data-driven decisions. And there's just a there's a vibe off them. You just know that sort of people if you had a flat tyre they would stop and help you. Hard to explain, you know, and Andrew is very generous with his time. I actually asked for a favour last week to get a letter of support for one of my projects, and he immediately sent it back saying not a problem, there it is. So, yeah, you know, he reciprocates. Yeah, just good, really good. And he's, like, all his posts on LinkedIn are always positive. So, if you ever look at what I do, all my posts are about other people. And I'm always talking about how well other people are doing their job and that's bloody fantastic. You want to look at that and Andrew is starting to do the same sort of stuff. So, it's not a good ask, aren't we? Great? It's what do you see this technology? Where do you see that, and this was a great outcome. They're good. They're good people. They're good people.

39:51

You were amazing. Thank you.

Farmer and Members Council

First of all, what do you do, what are you doing? You're writing a thesis?

00:10

Yeah. So, I'm investigating how innovation ecosystems emerge around bigger ideas. And, and, and in RFM, I see an entrepreneurial movement really, that has the potential to orchestrate an emerging innovation ecosystem, because how I understand what they're trying to do requires participation and innovation of multiple parties. So, it's a clear and interesting, entrepreneurial example of how this could possibly come about. Okay, okay. Yeah, that makes sense.

01:00

Yeah, so you're so yeah, so you're not, you're not essentially a sustainable renewable environmental person you're really doing is you're studying a range of potentially different industries, different concepts, etc. And this is one of several that you're looking at.

01:21

Look, I think, my view is that innovation ecosystems will be increasingly used to address the Pollak crisis, you know, and sustainable. Innovation is, is one of them. But I think with that comes a number of other issues that are wrapped up in what innovation ecosystems can address. Simultaneously.

01:47

Yeah, okay. Understood. Good.

01:52

Okay. So, your background, and RFM Yeah.

02:00

Okay, so, so my background, so I grew up in Southern New South Wales, about more than an hour and a half from where I'm currently sitting. And I'm one of three boys. And our father always said, if you'd like to come home to the farm, you need to bring a trade back, you need to bring something back that's useful beyond your, your physicality. And so, all of my brothers and I, we went and became white-collar professionals, I became a chartered accountant, started at KPMG. And then I went into, into banking with one of the Australian banks. And that took me well around Australia, in various roles. And then, and then in China, where I stayed. We lived for four years with a young family taking advantage of what was a lot of outbound capital from China into Australia, and inbound working capital for multinationals and things. So, I was a professional behind those big glass doors of big, tall buildings in big cities and living in airports and hotels and being away for three weeks a month, sometimes four weeks a month,

and with a very, very understanding and supportive wife, who is still my wife and, and, and I did that for 15 years. And then in 2015, we came back home from China. And I'd always wanted to get into a commercial space. And so, I became the CEO of a protein trading business in Australia. So, we were exporting maybe, we're probably the fourth largest red meat trader in Australia, and I did that for four years. And then that came to a kind of a natural conclusion, and I became the CEO of a permanent cropping business, growing almonds for an Impact Fund based out of the UK called The CIDUS fund, CIDUS us and this day I continue to run that run that almond business. And also, I guess I close the loop in so many ways, about the end of 2020, I went back into business with my family. My, my uncle, my father sadly passed away several years ago, and, and his wife and I, and my wife and I developed a partnership, and I'm sitting on top of that right now. And that's majority fine wool, and lesser so fat lamb, and even lesser so Angus cattle operation but our business is really leveraging off genetics that have been created through our family for several generations and continuing to produce what we think's pretty world-class fibre. And so, you've heard found me now living in Sydney, doing everything outside of Sydney, running horticultural assets for private equity on the Murray River. And then participating in, in our family operation here. And so, the question around how did I come to know Regen Farmers Mutual? Well, when I was 12, I walked into a boarding house at a school. And I think the second guy I met was Andrew Ward. And so, we went through secondary school together. Yeah, we're always, we're always friends, we didn't keep in great touch after school might have caught up a couple of times, but more circumstantial. And then I kept hearing him on the ABC Radio being interviewed. I see him on LinkedIn, and I am probably I reckon I hold the record for the least social media activity of anyone on the planet. And it's something I'm particularly proud I just, I just, I find it very challenging. I just think it just kills me, but Wardy loves it. And so, I couldn't turn off my remote my LinkedIn, Wardy has done this, and Wardy has done that. And then I heard him on something, and I I'd been doing because I work for an Impact Fund. Who were it's all about creating more with less or producing more with less. They were doing some pretty interesting stuff with ESG and native setbacks, we're doing really cool stuff with technology, water, technology and water conservation. Yeah, big irrigators in Australia tend to be scorned. And, and it's certainly very important to me that, you know, we were balancing out that. So, because I was starting to get right into sustainable agriculture with the fund with CUDIS and Amarello. I just shot Wardy a message and said, mate, let's have a coffee. I just, I just want to know what you're up to. And then we had a coffee. He told me what he's up to. And he said, look, I've got I've got a lot of people involved in this, but they're all farmers or they're all environmental people are there.

Yeah. But we haven't kind of got that professional side, in the member kind of crew. And he said, I'm going to start this thing. It hadn't even started yet. And he said, would you mind chairing the steering committee. And I said, I look happy to you know, and to this day I still chair that committee, it meets every second Friday. And I guess I provide support to Wardy and Rohan in a bit of a, I guess I come at it with a bit of a different slant, like, sometimes beating the drum a bit saying come on you blokes, not that they really need that, but it's, it can get a bit waffly in there. But, but equally, you know, with startups and things, you know, it's not my money at risk. I mean, we put a little bit of money behind the behind the, the technology side of it, the digital tool, Regen Digital, modest degree as a seed investor, but everything else is coming from sort their hard work and things like that. So yeah, so that's, that's the answer the question a long way, a long way of answering it. I guess you can release this

09:58

I love the story thank you that's really good to know. So, what I'd really like to hear from you given that you know you are playing this pivotal role in the steering committee, is to get us a sense of the story of development. So, from Regen Farmers Mutual, how then Regen Digital came about how then, I think Regen Trading and Funds then the Traprock project as a transactional example and now I think the AFI project which I think is examining the supply chain aspect of the solution - are you still there James...?

13:18

Yeah, so, I was I was just commenting on the Regen Farmers Mutual folder here. Anyway. And everything I do, and I put it in there, it sort of goes back to, I guess, early, you know, early 20, late 2021 or so. What we did was we had to do a cooperative, it was four or five sessions where we were, we were creating a cooperative basically, and then out of that came the I guess the bricks the bricks and mortar for the Regen Farmers Mutual and it was yeah, it was a set it was essentially birthing this thing. And I guess I guess there was maybe 20 odd people involved and then and then they opened up the membership and those same people jumped on the membership and then what they did was they, so the cooperative is owned by the producers, farmers. And then there's a there's a sidecar if you like, which is Regen Farmers Digital, which they which that essentially look for alternative capital in and raised through a crowdfunding arrangement. And that's, that's really the digital or technological interface where a farmer can detail essentially what's going on their farm from a digital footprint perspective or a digital twin as Wardy refers to it. I must say - so in, in the midst of this, we were at our own farm, we had started to look at this as well. And so what was really kind of neat was, and I think you've spoken to Christophe Bur, what was really neat was there was a very big why for me to be

interested in progressing along with this, because what I thought would be, from our own perspective, looking at, essentially an alternative revenue stream and doing and creating a better farm in the process through the planning and environmental party project that we still haven't commenced yet, but we're quite close. And Shereen, I couldn't find anyone in the market that knew how that whole supply chain worked from, from I've got a farm to I'm now making money from selling an ACCU. A lot of people knew little bits and pieces, but they didn't know end to end. And, and neither did the Mutual right No, and, and so so I came across Christopher at the mutual within the mutual because he was there like me in the early days. And then I actually paid him a service fee, to undertake an emissions measurement on our farm, through effectively respond to that through Climate Active. So, he did that we ended up with a reading. And then he was kind of the first guy I came across that connected these sorts of dots. In the meantime, we started, myself and my family, we've started to look a bit harder a how this could potentially, you know, work, we put a financial model together. But in the meantime, kind of trying to bounce off the mutual of it, and then I'd be on the phone to Wardy and Wardy would say, hey, there's this, there's this tool that that has a full CAM, CAM is the full carbon accounting measurement the Australian Government uses, you can you can get an idea of how much you could sequester by using this. So, I had that open and then. And then we're using the digital twin, the digital twin was using a bit of a different sort of structure. And so I was going off on my own tangent to try and find a solution for myself, or what we were trying to work on. At the same time. I'm still trying to support Wardy but also learn through what they are up to. We had the Australian Carbon Farmers Conference, you know, went to that. And they were very few farmers there. It was mainly populated by people who are some enablers or people who have come on, and they're a proponent for a carbon project that takes 30% or 30% of the ACCU's or the upside and things. So yeah, at the end of the day, the journey, my interaction or my involvement with a mutual has been probably first and foremost as a farmer member trying to get a handle on how that world works. But what's been neat, is so have they at the same time. And so, through their networks, through their connections, through their can do, it's probably accelerated our ability to go a bit forward. But equally where I think we differ a little bit, is so if you think about the Traprock, and these landscape impact projects. That is fundamentally what the mutual is about, mutual is about making material sustainable improvement at scale, through the involvement of a lot of people. What, what we've been doing is, we can't like we, I've sort of sat there and said, look, I can't really understand what each is doing. It is all about a gathering of many, we're actually pretty ready to go ourselves. And so what, what we've been doing is we've gone down a path where we've retained a professional

services firm, to undertake a full natural capital assessment of top airmen. On biodiversity, and carbon reflectively, tree planting and soil carbon opportunities. And that's a very kind of individual way to go about it. But we're also, we're probably also very well informed with respect to what's available. And then we're then where we could possibly plug into a landscape Impact Programme. So, there's one that they're doing, which is the sort of one in a southern Tablelands, which is where we are based. And that came about, primarily because we're based in Southern Tablelands. And Wardy said, well, if you're there, we might as well do one there. And, and then we've been in contact more recently through various conferences with Landcare and Upper Lachlan. And, and so you know, that that may or may not occur in the future. But we've probably gone, and we've taken another step to put our hand in their pocket really get ahead of the curve. But at the same time, what we find out and what we can do, you know, there's a knowledge sharing that happens there, too. And so, you know, who knows kind of where all this is headed, but, you know, mutual here, top elements here, I'm steering committee. I'm not involved in decisions I'm not involved in, in day-to-day, sometimes I wonder whether I'm being useful. Other times, I can say that I haven't been a bit useful. But that fundamentally, I know it sounds a little bit selfish, but we are really trying to get our our farm going. And at the same time, if there's an opportunity to be part of a bigger thing we'll take it, but it's not clear whether that's going to be the case. So come what may...

22:57

you are breaking up a little bit ...

23:03

Yep. Sorry. Absolutely blowing a gale here

23:18

the professional firm that you were talking about, who are they?

23:25

They're a group here called Integrity Ag and Environment.

23:31

Yeah. And what is their what do they do?

23:34

Well, in our case, they're assessing our enterprise for financial capital opportunities. So, they have a series of tools that they utilise and come up with a report that, it's that's essentially honestly Shereen, it's really where the landscape assessor in Regen Mutual is looking to get to. So, it's effectively a service that the mutual is trying to get to, but it's not it's not there yet. And as I said, we need to get going. So, we've got to get going ourselves. Because we're at a bit of

a different level on in terms of where we where we are. And also, this stuff's really expensive. So, you've got to get it really right. Yeah.

24:54

What do you think the limitations are at RFM and what's holding that up?

25:04

Well, where I think they are at is that they are after landscape impact programmes. So, they're, after collating a number of people to do a number of projects collectively to get a result. And to their great credit, they've, they've triggered that in the Traprock project. They've got four, there's four others, there's four, or three others. The Upper Clarence, the lower Western Murray, Southern Tablelands. And so, you know, the limitation is, you know, how do you eat an elephant bit by bit? That's going to take time. There's also a level of, of, you know, to, again, to their credit, they've engaged the Landcare groups, they've engaged Local Land Services, they, they all have a view, they all have ideas. And so, what will then what ends up happening is a lot of people get involved. So, at our level, were a single organization, we're a single-family farm. And over the last two years, I have done a hell of a lot of work to try and understand how all this works. And I think I've got myself to a level where I've done enough, like, I've done, I've done enough to know that I guess, enough to be dangerous. But we really needed that, and the bank actually asked for it to, you know, that that report to come through with respect to what we're looking to do and which confirms or why ratifies essentially what we're trying to achieve. The mutual is not in that position yet, because it's new. It's doing what it's meant to do, which is trying to create ground member value by doing scalable impact programmes. Now, when you actually look, when we were talking about the mutual, and this is an interesting part of it, right? So, you've got, you've got the people that have, like a paddock or a little block. And they're the ones that go on the airplane, and they want the carbon emission offset, and they want, you know, they kind of want that feel good sort of thing. And they're wondering, oh, how can I get that little block to perform for me or do something and then then you've got the big end of town, like the, you know, up here who've got, you know, potential much, much bigger opportunities, they've got, you know, potentially the vast opportunities, because they've got vast scale, and then got this middle ground, anywhere, kind of here now. That middle ground is where we sit. And I'd say a lot like the lower end of that middle ground, we are not we are not big in any way, shape, or form. Compared to what, what, what goes on. But, you know, in reality, what the smaller landholders that want to do really great things don't have the scale to do really great things. But they are all ears and they're all humming along to these, you know, these meetings, and sometimes I'm just sitting there going, oh, my God, like, this guy's

got a bush block. And he's going, what can I do? And there's nothing you can do. And so, it's like, look, that's great. Your enthusiasm is fantastic. But if we want to actually make a difference here, you got to get the people like us involved and I can guarantee you Shereen, and the people like us, nice sit there going, this is bullshit. Right., really. The standard, the standard kind of response across the moderately to high leverage to grazing livestock cropper, whatever, is, er, I don't know about this - No, no? Now, my family are a terrific litmus test here because everything we do on this place I ran past my uncle who is brilliant, absolutely brilliant farmer and has done it all his life. And I think he's actually; he's finally hit the, he's farmed for longer than anyone in our family has ever farmed. And so, it's great because I told you about my corporate background, and you know, hey, you kind of find yourself doing a bit of jazz hands and trying to sell a story. And I just, and I look at his face, deadpan he just goes, I don't understand. I don't understand. And that is, that's what's so important because this is not about selling something because at the end of the day, farmers actually have to live with the consequences of the decisions that they make, which are permanent decisions on their farms. So, to give you an idea, the tree planting jobs on our place, which we haven't done yet, it's all under consideration, but we're essentially transferring from grazing country to creating a forest. Right? So completely the opposite to what's been done in the past where you clear for grazing, you're essentially putting grazing back in the forest, yes, you're getting paid for it. Right, you're getting essentially these carbon credits, but that's a permanent reduction in operating income, which needs which is offset by carbon income over a permanence period, over a project period of 25 years. Then after 25 years, that land is no longer worth what it was because it's just the bush block and so when you say oh where's the mutual kind of lacking, let's say where the where the market as a whole is lacking, is in the education piece full stop. Because I would challenge even the assessors like any of these kids - there's very few people that actually know how this works and I think that where the mutual is aspiring to be, and as I said I chair that steering committee so I'm make no mistake I'm in full support of what they're doing and I'm I've had my hands on around it for a long time from a support role. I've never been a director I'm not an executive. I'm basically a conscience Have you thought about this going too slow, you selling bullshit. But if we're about to if we're about to come up with you know, six figure, seven figure numbers to undertake these projects, then we're going to look for the best in the market to give us the best advice with which to undertake that. And the mutual is not there yet

33:28

okay, so what do you think the mutual needs build on quite quickly to come closer to where they need to be. What do you think is the priority of development?

33:45

I was thinking about this the other day and actually haven't even spoken to Wardy about this yet. But I think you either hire in guns to get it done, which is expensive, or you go okay what are my big rocks? I'm coming to you from a corporate strategy. So, my corporate background was kind of restructuring, insolvency restructuring, basically looking after businesses that weren't going so well and things, and we kind of look at it. And we'd always sit there and say stick to your knitting or what is your knitting. And I think the Mutual's at a point now where it says, what are we really, really good at? What do we really want to be good at? I think given the journey that we've been on to try and understand what's on our farm, and you know, and we're still going through that, we haven't got our final reports yet. It's not one size fits all. And it is probably where the heightened risk is in that service. Because if you get it wrong and someone goes forward and does something, you can't undo it. So, I wonder whether or not the, the landscape assessor or that sort of role, that that role of assessing your farm, is something that they really need to be doing. Because what they've got, they were just successful in achieving a grant. So, they've got some, they've got some capital with which to, to attract producers into these projects. To me, it would make sense, particularly, you know, we've just had an experience with obviously, these guys Integrity Ag, in my view, the question is, how does the firm like that come down to that level, and then still find a way to make it work for them? So, you could decide to do a JV. Well Integrity Ag may not want to do a JV with that, because it's at the lowest level. Or they might say, you know what, this is really interesting. Let's, let's kind of structure our business so that we could do that. And they could leverage off all our services and there is a service fee arrangement or whatever. But ultimately, whether someone does the assessment, or Regen Farmers Mutual does the assessment, at the end of the day Regen Farmers Mutual is still doing all of the collating and the herding and getting all the people together and the members and then ultimately, they're actually going to also market the environmental goods and services, and potentially even finance these things if Rohan gets his fund, bit going. So, do you really need to be doing the assessment? And I, as I said, I haven't spoken Wardy about it Shereen, but we have just been going through it, and it is bloody complex. I have stood these guys up. I have had several phone calls with them. And it's not. Hi, I'm Johnny from Regen Farmers Mutual, so nice to meet you are you've got some opportunity look, we'll just run full CAM here. And it is so different to that. And every farm is different; you are actually trying to completely change how farmers think about their farms.

And when you're sitting in the window at paddocks that are apparently got sheep grazing on them and the thought of them turning into forest, regardless of what funds are, you do you need that you need that impetus in that confidence on why.

38:16

So, I love what you're saying, and I want to explore with you this. So, the world's, you know, comes from a business model orientation where, you know, the business has a purpose, a mission and a set of stakeholders to bring about the value proposition. But increasingly, like in the RFM scenario, it's such a massive ambition that to do that single handedly is difficult. So, if we had to say, let's put on an ecosystem model lens and say instead of a business model, how do we how do we put together? How do we design maybe an ecosystem model solution where, you know, RFM are the coordinating entity, but we plug into that niche contributors, you know, high level niche contributors that come together to deliver to a collective value proposition, you know, would that be something that could really catapult the capacity of RFM, is that possible?

39:41

Well, the, if you think of a catapult, right, it's a device that time that works because of extreme pressure, right? Opposite like an elastic band so that elastic band gets tightened, through the sheer number of members in the mutual, right. So, this is a scale game. I don't think you'll be having any other discussion with other people that are in my boat because none of them are sitting there on their own farm trying to work this out. They're all kind of working it out with this together thing. And so the reason that I like the mutual is because there are so many sharks spinning around out there that are turning up, we call the "watch you brigade" right they turn up, they're like a shiny gold tooth real estate agent, oh, we'll do this, you give us that we'll be the proponent, we'll take all the upside, you get that and will give you place back to you looking very, very different to what it was and probably worth less than what it was. And so I liked, and I still like the concept of a cooperative style socialistic structure that the value goes to producers, it works out scalable impact. And that's really the structure of the catapult. Now to your point, right, you're going to have different styles of different members with different needs. So, if you look at, if you look at an insurance company, they tailor their products to different requirements, right - the big end of town, the middle end of town and the small end of town. And then all like a bank, even better example, I've been in those things for years. You've got your cost to serve. So, you've got your little retail crew, your business bankers, and there might have 50 clients cost RM, to very, very big ones. When I was there, I think the most I've ever had was eight to 10, you know, and the cost to serve was significant. You had

ecosystems around them; they had their own private bank. So to your point, at the moment, the Mutual has essentially fingerlings, little, little kind of little things, little businesses, little organizations, little farms, essentially the crew that really want to make that difference, but they are the early adopters, these are the people who are willing to make it, that are very passionate about making a difference, that came to put whatever they have in the pot, because it's really important to them that that we address these, this sustainability issue. Right. And I would say that all of them are in that boat. Very, very decent, good, well rounded, thoughtful, considerate people. Very, very important group of early adopters, right. And then you've got Wardy who's this kind of engine who's pushing along and Rohan's the you know, investment banker guy with a little propeller running around and he he's a soother to Wardy, and the yin and yang works well and then occasionally they'll throw a guy like me in there who actually says things like they are, and they will says James again and then go back to what they're doing and so look at it and the show goes on. Now that they're the steps have been relatively small, the next step is a big step. Because they've, they've got the track they've executed on Traprock and Traprock being a white box, grassy woodlands very, very good one to execute on. I think white box grassy woodlands is the second most attractive biodiversity project you can do. So good start, engaged. There's something they can market on the back of; it's something that they can point to and say they've done as opposed to something that they're going to do. They've got a grant. They've got those next three to come. To your point. It makes absolute sense that they find the best of best of breed if you like, or best-in-class support structures, because essentially, they're now at a point where they can market what they've got, which is a growing member base, a growing member base means a growing potential client base for others. You'd have to start with an arrangement where you're only looking at impacts, and you're not looking individual client sort of stuff. But you're looking at, hey, we're doing Southern Tablelands Impact, and Landcare, and Local Land Services all decided that we're going to do this here. And this is the area, what are the natural capital opportunities available in that area that could be at scale, and then you get your Integrity Ag crew to come in and say, if they're willing to, and they would at that sort of scale, okay, let's have a good look at this. And then in 4 weeks, you get your report, you've actually de-risked yourself too because you've actually relied on that very, very important piece of work on someone who's been doing it for a long time, as opposed to someone who's aspiring to do it, through frankly, quite low paid, you know, meaningful people, and I'm trying to be very respectful here Shereen...

46:23

No, I totally understand what you're saying. And, you know, I've, you know, I've spoken to a few people so, you know, the knowledge that I have, it's not, it's not deep, it's superficial. But what I'm seeing is that there are a lot of passionate people kind of pioneering in that Traprock space, the landscape space, and there are huge amounts of learning happening. There are huge amounts of process work being defined, you know, so, process is understood better capabilities is understood better outcomes is understood data. But, you know, I questioned whether that is actually being formalised, or, you know, like, into process into, like, these kinds of projects, this is how we do or do we need other capability coming in, if this is what, you know, our value proposition is all

47:26

But Shereen, one of the big points here is, so, in order to get those away, you have to get eligible interest holder consent, which is essentially the bank's consent to doing a project the bank, they look at it and say, okay, in 25 years, what's this going to look like? And then they assess all that. And so, we we went down the path with our bank of getting eligible interest holder, or indicative eligible interest holder consent, and then some very high-level terms of funding. Now, the banks are very keen on all of this, because, you know, corporate responsibility, and, that scope three emissions are actually counted. Now, the scatter emissions of a bank represent those of their clients, as in the scope ones, and two, so I think that's, that's, that's going to be enough to get everyone. So, it's, it's really interesting, right? But so you've got all these stakeholders. Namely, everyone's biggest financial partner being their bank, in most cases, most people have a loan. The banks aren't going to just make that call lightly. And so, you know, when I look at what we're looking to achieve here, we also need to have the financial analysis and financial sign off from a third party, this is actually a viable project. Now, that's, that's not Integrity Ag. Nor are they going to take my word for it, like we can put together pretty financial models, because that's what we've done in the past in other career choices and things, but what I need to be doing is I actually need to have anything that like essentially need to have that vetted by third party. So, when you're talking big, big scale, well, we pay an investment bank to do that, or you pay a big four accounting firm to do that, when you've got you know, a few hectares or you know, a smaller project like all these are, well, it's a very different kettle of fish. So then essentially what you need is you need again, a bit of a plug and play like a template or something like say, let's say you've got your, your enabler assessor, and you've got your, your financial kind of side of it. Now, my business partner and I, we put together the financial model that the Mutual's using. So, we wrote that. And we, did that under a service agreement with Regen Farmers Mutual. And so, the guy I work with who's a superstar,

he pulled it all together. And there were a few iterations, few iterations. And it's like, well, there's a financial model, but we haven't really chased it up or done anything since. but will it work? Maybe. But it's, it's not yet commercial. So, again, it's great to be able to sit down with a producer. Well, I think the mutual can really work is, let's say, you've got that base financial model, where that's the entry point you to go and sit down with a group of advisors and say, you know, guys, we've actually had to think about this. You know, we've done some preliminary work around these opportunities. Let's say this, and this work. Well, this is what it could do. So, you're essentially baiting the hook. Right? And going based on things that have worked or could work, are you guys interested in a proper assessment, then they go, Oh, that's interesting. Yeah, yeah, I'd like that. So, then you go, okay, we'll run a let's get Integrity Agto go and do or whoever, I'm only saying Integrity Ag because they're my advisors. You go and do an assessment. And then, what then has to happen is it is you then sit down with your financial model and say, hey, guys, based on an assessment, this is what this could look like. But you know what, we are you, you are us, you know, you own us, we, you know, we're the mutual, let's go and get that ratified or verified by, you know, so and so financial support person, or, you know, whoever, because what I'm getting at Shereen is the knitting is very clear. Things can go wrong; things can go south here. And I don't see it being critical that the Mutual has to be all things to all people. Its job is, is quite clear. It's its ability to attract members on the back of best in best-in-class services to arrive at best-in-class decisions, to support representations to said bank to said, accountant to said family, remember that a lot of these farms, you'll have mom and dad saying to a son or daughter. Now, I don't agree. I don't agree. Son and Daughter are saying this is great - we're going to make more money, and we're going to be a better farm. And then it goes wrong. Can you imagine what goes on then...

53:22

Yeah, yeah. So, I also know that I've got like two minutes left of your time, because I asked for an hour. So, well. Maybe to wrap this up, what do you think are key next steps for RFM?

53:47

Finish Traprock to a point where it is a marketable initiative that you can point to and say, this is what it was, this is what it is, this is what we did. This is why it was great. This is why we're going to replicate it because there is a there is a case study there now and they did a good job of that they are they're doing that. The next one needs to be bigger, better, no, etc., that never pay grants and things. I think what I would suggest goes on now is that they have a think about you know how to kind of hurry, don't rush. So, let's get this one done, more quickly, more accurately, how can we do that? What are the potential means through which we can, you know,

de-risk the process as well. You know, do we really need to be as a startup, you know, having our own in-house assessors, etc., etc. You know, what if we had someone else doing that?

55:11

Are you referring to sorry? Sorry, just wanted to clarify that you're referring to kind of thinking more ecosystem model approach. Or are you suggesting subcontract?

55:24

No, I'm saying I'm saying good luck on who you can partner with to get these going at scale and that they want to be making two, is it 2 million? I mean, the ACCU's was it, I forget what it was, but it's a big number, right? So, so they've got to have a significant amount of these going at once. So, they've done one. And it's not very big. So, in order to scale quickly, they know the recipe is correct. The recipe is correct. Yeah. Someone like you wouldn't be interested if the recipe wasn't correct. But in order to, to then get to that scalable end game, how do you how do you get the nose and the wheels off the off the tarmac? And the way you do that is by is by finding the resource or the ecosystem that can get you to scale? The very nature of my background is you know, it was always that the Chinese did this really well. They very, very focused on what they do well, and then they find that way to significantly influence - they don't own everything, that they can significantly influence, and the best influencer is the one that has the market. Now the Mutual has the market, it's going to have the members, it's going to have the means to market those ESG products. Therefore, that captive market then has significant influence over that enablement pace, you don't need to be all things to all people to end up with exactly what you're aiming for. That's, that's my take on it.

57:25

Yes. Yes. I'm glad you refer to it, because the Chinese are really good at ecosystem models. And I think they, you know, at so many levels, they understand that model really well.

57:45

So, think of it as a supply chain. And think of what part of the supply chain does the mutual need to control, what part of the supply chain can the Mutual leave with significantly influencing. And that was that was how we used to look and particularly operate in the, in the Chinese market, because that's how those how they worked. And it always resonated with me.

58:24

Listen, this has been wonderful, James, thank you, you've given me insight into, you know, a picture I didn't have before. So very, very useful. And they're lucky to have you, I'm sure you can bring a lot more to the future.

58:47

I appreciate your kind words, Shereen Um, yeah. I'm a, I'm a very big supporter of it. And the way we've just spoken is the way that I speak to them. Are you're going to do a debrief with Andrew about all your calls and discussions?

59:08

yes, I would love to also feed back to you and say, like, this is how I'm seeing things, what do you know, am I getting this right? Or is there another way of viewing it, I'd love to get your feedback on where I go with this.

59:22

It's you know, so like it's like a movie that's a quarter of the way through no one knows what's going to happen here. And the funny thing is, like, you know, so when I'm sitting here now saying all these things, right? And I'm not sitting on a fence; I'm certainly on one side of a fence. Now it may well be that everything I've just said, Wardy goes, Yeah, or it gets put to pay. And I think the beauty of what we're trying to achieve is he's getting there the right way. But having many views helps it get there the right way. So, there might be certainly take. And I might say, you know what? We need to be doing the assessment in house because but yeah, you're right, the financial side of it can happen out there. I don't know the answer, but I'm sort of saying enough to know that they need on the basis of my points are that they need to they need to realise scale rapidly. And the way that it's currently structured won't realise scale rapidly. Rapid scale is the crux of the of my, of the basis of my recommendations.

1:00:41

Yeah. Can I ask you one last question? If you had to name the key players in this solution, you know, and I guess you had to put a, an ecosystem model together? Who would be fundamental to that model?

1:01:00

As in the ecosystem, the enablers, yes. Well, I think the, the natural capital assessor, and I say natural capital, not carbon, not biodiversity, not but what are the natural capital opportunities, full stop with respect to carbon sequestration, biodiversity, but credits essentially. And in our case, then revenue generating opportunities, so whether it's a Emissions Reduction Fund, environmental tree planting, or soils or whatever, whatever. So, someone, like someone needs to be able to sign a document that says, this will absolutely adhere to the requirements under the legislation Australia to, you know, to get us we are doing that right now, we are paying for that, right now. Then, it's a case of the, you know, the actual numbers as adjectives essentially, what's this? What's this describing to me? What's this telling me? How do I arrive at a decision now, in order to do these things are farmers going to have to give something to get something?

Now, whether or not that's changing the way that they manage their stock through rotational grazing or, you know, etc., if they're doing a solo project, whether it's sacrificing existing grazing or cropping country for environmental plantings or under the climate active guidelines around insetting, you know, where you do a project to inset your emissions, that, and even changing how you might say, right, we're going to get rid of our petrol driven motorbikes and or diesel, we're going to get electric vehicles. So, so there is a give and there is a take, there is not a, I'm just doing what I'm doing. And I'm just going to have this, this nice little add on - that there is there is going to have to be a change whether its financial And so what needs to happen there is it needs to actually be very well understood as to what the extent of that actually is, and whether or not that project actually makes sense to do with respect to the cost benefit of doing it. Now there are obviously then there's the other side, which is let's say you keep going down the track of, of livestock production and suddenly you've got your carbon credits, or other credits or biodiversity credits and you're looking for a premium on that you're looking to go to market and say, hey, I can sell you a kilo of beef and I'll give and I'll rather than have a kilo of beef and one Australian carbon credit unit, why don't I staple them together? One plus one makes three so essentially, I've got you can have a carbon credit unit, and you can have a kilo of beef. And there's a solution, right? Because then they're essentially working out their supply chain. So, all of these, all of these options are all of these issues become key pillars for the ultimate decision and the thing is Shereen, it's a permanent difference to your business. It's a permanent change to your operation. And so, you can't kind of get out of it that easily. Which is my long way of saying the next key enabler is that is that entity individual that can assist, putting what is relatively complex into relatively simple, simple term. Now, if it's just about blocking up on existing timber block, easy Yes, right, you're not generating any money off, it makes great sense. But unfortunately, most of the reason why white box grassy woodlands is so popular is because that's where the best country is. The best grazing country, the best cropping country is in is where that was. And so, you're getting, you're getting these, you know, what's the impact on the bank? The valuation of the place? If I do this, after 25 years, what does the bank think? How do I how can I sell the place in 10? or so years? With that caveat of permanence of a permanence stipend, right. So, then I'm telling you exactly the things that my family and I are thinking about right now as we go down this path

1:06:24

Interesting. Yeah. Yeah. It's big and complex. It's not easy. Yeah, it's a brave space. You know, it's, I think what RFM are doing is so brave. Because as you said, it's uncertain. You know, all

of this is being defined as you move into the territory, and there's no guarantee of what the outcome will be.

1:06:51

yeah, totally like carbon credit spot rate today is \$30. Like, that kind of makes it kind of it just makes it okay. They could be 90 different. If they're \$90. We'd all be going boom. So you later. So what what's going to happen over the next period, you got political? Yeah, the politics of it all as well. You probably got similar things in South Africa around what your government's committing you guys to at UN levels? So yeah, it's an interesting space. It's

1:07:30

a space that I'm very, very happy to know a little bit about. But I'm certainly I'm not here being highly technical, because even after all the work I've done on it. I'm still getting pulled up going. Hang on. I thought it worked like that.

1:07:47

Yeah. Yeah. And will continue to be like that. I'm sure, for a number of years, the space becomes more defined. I think at the moment, everybody has a different idea of things and different language for the same thing.

1:08:03

Yeah, that's right.

1:08:06

Anyway, well, the wild west in a way.

CEO NRM Regions Australia

Who else are you interviewing?

00:06

So, I've interviewed about 10 or 12 people so far. So, Wardy, I have had three interviews, Rohan and then a lot of people on the steering committee. So, Mike McCosker. Stephen Todd. Gosh, I mean, I know, Jacqueline MacArthur, Kym Wilson who was involved on the Traprock project. Yourself. I'm trying to get hold of Kristen. She's just been hectically busy. James Campbell. Oh, yes, Christopher Bur. He was wonderful interview. They've all been wonderful, actually. Yeah. So, and then. Yeah, so I have about 10 in the bag, 1012 in the bag. And I've got Roger Knight tomorrow. So, but that that has already started to give me a really interesting picture. You know, when you start research you, you think you're looking for something, and then you actually find out, you're looking for something else. So, there's, it's been really interesting. So, I think I'm at a point now where I will, you know, pull out the top-level codes and organise and then come back again, and dig deeper on the stuff that's emerging. I think for one thing that for me, is starting to feel like much clearer than everything else is this notion of collaborative intersection, which is what I actually want to explore with you, and then the alignment that happens around that. There are a few things that I think create that and I think what Rohan said two days or three days ago, when I spoke to him says we constantly facilitating conversations, and that continues to grow. And I think it's in that conversational space and in that co-design space, that it creates this Attractor Factor of people that share interest and ambition to bits of what they're doing. So, they relate to parts of it, while they relate to the whole ambition, of course, because that inspires them, but then they also relate to particular parts of it. And, you know, that looks like it's those collaborative intersections where it, people can see the opportunity to contribute, because they have a piece of that puzzle, or they have the ability to contribute to a piece of that puzzle. But also, because they have in their line of work or in their sphere of interest, they have another piece that could benefit from that participation in that intersection. So that feels like it's, and it's through many of those that Rohan and Wardy, I think, have been able to build capacity is that they have, or there are at least just the open doors and the support. I mean that doesn't take away from their huge personal integrity and grit and determination. You know, but I think it's, it's that knitting together of those collaborative intersections, I think that starts forming this invisible structure, that started shaping something much bigger, to take place in an environmental context, which is pressing

more and more for this this framework to work. You know, there's more interest by many more people to want this to work.

04:44

Oh, interesting. Okay. Okay. Um, well, I should let you get on to actually asking me questions then, shouldn't I.

04:52

So, just a little bit of background that maybe you can just come in and explain to me where you were what you were doing at the time you started making the connection with RFM. And then what happens?

05:11

So, my background with regards context... Um, I guess it's interesting because I think I think the collaborative intersections is very much what we do in integrated NRM, naturally anyway. So I guess I had moved into the role at the time probably at that stage early on, with NRM regions Australia, which started off just as non-legal entity that was working collaboratively with all the regional NRM organizations across the country. Do you know, so do you need a background on regional NRM organizations?

05:50

So, I watched a YouTube presentation you've done and that's, and you know, obviously, I've picked up stuff. So maybe a little bit of background would be good just for, you know, accurate context.

06:03

So regional NRM organizations, there are 54 of them that cover the entire country. Some of them were, how can I say this, I'm trying to think of how I make this quick and simple. They're diverse, as far as their legal makeup, some of them have a statutory basis. Some of them are non-government organizations. But they all share a key set of principles. And I'm happy to send you some information about them, or background presentations, or whatever you wish. We all share a key set of principles, and also an arrangement in general with the federal government to help fund goals of the federal government, that are good goals, but some of them, they all originate in the concept of integrated natural resource management, integrated catchment management or integrated landscape management, or by regionalization. So, as you'll be aware, last century, there's been a whole process over decades of understanding both of first principles, research and practice that, you know, leads us to understand how we have to manage whole landscapes in an integrated fashion with people collaboratively for the best outcomes for the environment, but also for people and the industries that rely upon the

environment. And that's, of course, even more relevant under climate change. So, they're all we were all very similar. Catchment management authorities originated, I think it was, obviously, if I remember correctly, sort of the early 90s, in Victoria, in New South Wales, there was something sort of similar. So, there was a agreement under the Council of Australian Governments as it then existed in about 2000, which understood that piecemeal investment by the government, through its national Landcare work, such as the Natural Heritage Trust, and also through private sector, etc, piecemeal investment and small scale activities didn't add up to the strategic level of change that we actually required. And that's why you needed to ensure that you have some sort of landscape scale planning or strategic regional planning that integrated across resources and across scale, yeah, across a catchment, whatever it might be. And there's lots and lots of international literature that you've I'm sure you have accessed to about all of that, including the integrated landscape management book or whatever it's called, by Paul Chatterton, The Little Landscape Sustainability book. Yeah, that was so you know, it's a very generic, it's built upon very generic international concepts. Yeah. Anyway, in about 2000 because of work that had been done by the Australian National Audit Office and a whole lot of other reviews and critiques, we realised that we can just keep investing in that ad hoc sort of way across the country, and it wasn't going to make the difference. So, the Council of Australian Governments, as it then was agreed that they wanted to regionalize across Australia. So, they built upon the existing arrangements that were catchment management authorities or equivalent. And when they were they weren't existing arrangements, they entered into bilateral agreements between the federal government and the state government to actually create or help create some sort of integrated natural resource management organization. So, you have things that have now become landscape forwards in South Australia, you have NRM organizations in Queensland and WA, etc. So that's why you've got that sort of shared principles, but quite about different legal entities. However, the expectations upon them are very similar, though some have broader scope than others. Some have legislative responsibilities for things like water planning, some don't. But they all run on a similar thing and have an expectation that they'll do integrated landscape planning, that they work collaboratively with people on the ground, that they are evidence based etc. So similar principles, written a lot of, you know, we've all written about that. So, I can always I can send you then that to me, that would be wonderful. Yeah, lots of examples. So that's what that is all built upon. For years and years and years, we've had a collaborative agreement where we've had a small amount of money that comes from each of the regions to help run a National Chairs get together, and to basically have a, you know, a part time role as a non-legal entity. About three and a half years, and I ended up

in that role after moving on from a couple of other things, including chairing and reforming territory, natural resource management, and finishing my PhD and a few other things. So in that role with the then current chair, we agreed that the sector had matured, and it was about time we actually formed an actual legal entity went through a whole consultation process, and we became a not-for-profit company limited by guarantee and with a membership levy that helped fund us, and accessing through fee-for-service, started accessing some federal government funds to actually set up national capacity to do things like share and build knowledge and support each other through things like communities of practice and knowledge brokers, knowledge hubs, help inform policy and what was happening with policy, etc., etc. Now, in about just going back, again, to inform some of this in about 2011, I think it was 2011/2013, the carbon farming legislation that was put into place by the government, there was a lot of work behind the scenes. So, I was currently I think, at the time I was chair of territory NRM, and I was working with a couple of others to try and inform the then government and the Greens who were influencing that to not allow carbon legislation to go ahead that would create perverse outcomes in the environment, or to communities. Yeah, so if you just go hardcore on carbon, you'd end up with a whole lot of blue gun plantations across the country. And we saw what that creates in the previous iteration. So, there's a whole push saying you can maximise multiple outcomes without perverse outcomes. But you have to do that sensibly. So, we managed to get regional NRM plans written into and referenced into the carbon farming legislation. Because we were trying to show look, you have to fit that market and those opportunities in those projects into a broader landscape understanding but an integrated landscape understanding so that we didn't have negative social environmental impacts. So that was very much an indication about how if we work to influence legislation, etc., we could try and get a better understanding of the need for integrated landscape scale planning and management. So, when as the carbon market matured, understanding, it's only a market and that the majority of money is from the federal government, we became concerned by you know, the ongoing potential for negative outcomes, but also negative outcomes for farmers. And the dominance of the, how can I put it, the middle person in it. So, the project developer. So, what happened was you had a huge growth, drawing upon a taxpayer funded market, huge growth of carbon project developers, some of whom were doing right by farmers and landholders, and some of whom weren't, but a lot of whom were making a lot of money out of it. And that money wasn't going back into the region that was generating the carbon credits, or in fact, to the farmers or building the capacity of the region or any of those things. So quite early on. I started making the case for the fact that we needed different business models in the carbon

farming market. And those business models were ones that shared benefits differently and also shared power differently. Yeah. And so I would have meetings with ministers in advance coalition government saying you need to be encouraging not just what is a very mainstream idea of the market, which is that you have, you know, the provider of the good yeah, the supplier in the middle, the middle person, the retailer, to the project developer, but then we can use some of our more traditional methods which are quite famous in Australia where we use collectives or cooperative or mutuals. And I was particularly pushing co-ops because co-ops are classic thing and Australian agriculture as a way of benefit sharing. Yeah, and also a way of giving more power and decision-making back to the actual. So that was something that we were already pushing unpopularly I can say also in carbon market Institute events, etc. trying to explain to state governments as well saying look we really think you need to be helping encourage this as alternative models.

15:19

Well, what was the resistance to that?

15:22

um, well, the carbon market, the project developers were making money they didn't, that would be competition to them. So, they resisted the carbon market Institute, I think, their predominant membership were the project developers, so they didn't see it, they didn't see anything in it for them. The government at the time, even though I remember a minister's adviser at the time vehemently agreeing with me, you know, they weren't there to you know, they were pretty much neoliberal economists. So, they didn't, even though they agreed behind doors, they weren't going to do anything. You know, there was just no, there was no, why would that be an appetite really? There was no reason there was an appetite and, and the farming community and other suppliers weren't yet empowered enough to actually take a stance in that way. So that's the reason I'm telling you all of that level of detail is that is why when Rohan and Wardy approached me about their idea for a mutual, I was really interested, not because we would become a part of the mutual but that was exactly what we were looking for. We were looking for alternative models. And there are other models as well. There's the one in WA, there's, I think there's three now that have some form of, you know, benefit sharing in that way, you know, that are owned by farmers. So that is, that is why when they reached out to me, I agreed to talk to them, and I was in a sense, supportive of what they're trying to do, because I thought that is exactly the sort of thing we needed to have emerge. I didn't know whether they would be successful or not. But I felt we it was really important. So, I can't remember it was a years ago, when they were first thinking about it, that I had my first conversations with them.

17:09

Was that around 2020 before they did the co-design process?

17:13

Yeah, it was before they did co-design process, really early on in their stage. To be honest, my chronology is bad after COVID I tend to forget exactly what... it all merges. Yeah, big sort of grey. Anyway. Um, so that's why I was so supportive, because I saw it as, we had a problem that people weren't necessarily acknowledging, and this was one of the models that we really needed. And this also is something I think was really important was people understanding that it was actually not just the nice stuff, it was the actual business models where someone was putting the effort into the legalities. And the transaction costs, you know, actually putting the effort in to provide robust alternative, governance structures and legal for people. So, the one thing though, when I first talked to them that I was a bit shocked, was they hadn't by then I don't think that figured out the landscape scale. And that was a whole big new thing to Rohan. Rohan just wanted to empower, you know, farmers just to and do projects and individual projects. So

18:21

did habitats. I think they moved from protected habitat to covenant to landscape. I think that was the journey. Yeah.

18:31

Well, I remember I remember the conversation because it was more natural to Wardy. But I remember Rohan just going, oh, and I basically took him through landscape 101. And it was very interesting, because it was almost like you could see the pennies all drop. And he could go oh, okay, right, if we want to make a real difference, just as it did, in a sense to governments 25 years ago, when they realised if we actually want to make a genuine difference, we have to look at this at the landscape scale. It's not sufficient just to you know. So, it was fascinating to watch that transition. And in fact, Rohan and Wardy have ended up becoming better landscape champions than almost anyone, you know, hence opening their, event in Sydney with Paul and I giving that talk, I was just like, oh, that's fantastic that you guys want us to give a talk about our favourite topic, which is why do we need to work at landscape level, it's just brilliant. So, for me, that's been a fascinating part of their transition and a really necessary part. And that has then also led them to this work that they're doing in the Traprock and other things, which is where you are you're working with multiple enterprises and people to actually try and get a landscape scale thing out of multiple individual projects. So, and that, of course, has also I think, opened their eyes because I don't think they realised a lot of the fundamental work that

regional NRM organizations do, that actually underpins the work they were wanting to do and could provide into. So, they weren't working in a vacuum, there was an awareness that look, there's all this existing work. So hence, in Southern Queensland Landscapes are one of our members, of course, helping substantially with contacts with farmers. I think bringing farmers together, obviously with the data GIS information type level, the expertise, you know, the independent advice to farmers, etc. So, there are a number of roles, I think, where they have acknowledged that a role that we think is really fundamental for our regional NRM organizations and they agree, I think there are a couple of roles where they probably believe that's a role that they'd like the mutual to play that we would probably normally expect regional and NRM's to play. But I think that's by the by in some ways. But for me, it's a really important way. And this is one thing I said at a conference last week, it is now where Rohan was on my panel and we were talking about the nexus between climate change and biodiversity, and in a sense, nature-based solutions and Rohan and several other people were talking about their projects as case studies, and one of the points that I mentioned that I think is also really interesting and Rohan deepened the point really beautifully, with the Traprock example, was that issue of power and agency, and how often in our conversations publicly in this sphere, we don't talk bluntly about power, and agency, and I think we need to. And as I talked about it Rohan sort of jumped in and ended up saying, which really struck me, he said, I hadn't even thought about agency in that regard. But also, what we've done is created agency, which is what NRM is trying to do so to me, it's almost like I said to him, oh, my God, you're like an honorary NRM person, because he talked about the agency of a lot of their guys go finding their own expert, to advise them. So, he said, rather than us bringing our experts, we encourage them to go and find experts that they were happy with. But it was very, just very interesting, because as Rohan talked, for me, he sounded just like one of my guys. Do you know what I mean? And NRM people are generally quite enculturated into a certain value system, which is why people are drawn to and stay within NRM I think, in lots of ways, even whether they are conscious sometimes of those things or not. So, it was it was very interesting. But I do think that issue of power and agency becomes really relevant about why the mutual is so important, and why in a sense. And the fact that the mutual invests in people in a landscape, and helps empower people in the landscape, as well as all the other things that it's doing, which is some of the project developers will say that they're doing. And I know some of them do try and do that. I know that Climate Friendly, for example, has quite a good reputation about really trying to do those sorts of things. But I think when it's your actual model, and the ownership of your legal entity is that those people, then I think there's a there's a safety mechanism, that's not

foolproof. But that is certainly better for ensuring that that's one of the outcomes of what you're doing.

23:31

Wow, that power agency thing has been a huge key that you've just given me that unlocked because I was thinking about what makes them different to a normal corporate structure, in terms of what they're building here is that neither Rohan nor Wardy want power. They just want to be able to facilitate a very large solution. And they want to mobilise a field of people across landscapes and country to participate in and contribute to the result so that distinction is just so powerful. Wowee, thank you.

24:15

Which is why I think understanding and analysing those different legal entities and how they work and the governance structures and the obligations and responsibilities and accountabilities, though it's unsexy, I think it's really, really important. And that's why on Monday, whenever it was last week, you know, I mentioned power and agency because it was something that you could really hear coming through from Rohan's talks and from some of the others who were talking as well. And I think it's neglected. So having you grab that key and use it I think would be fabulous. It's really important. The other thing that I think can be important with that one too, is that you do actually need financing mechanisms that allow that to happen. And that's where, for example, Rohan and Wardy can talk to the cows come home and make as many friends as they want. But it's not going to go anywhere, unless there's an actual concrete finance mechanism to make it work. So, I sort of feel like there's power and agency, but then there's also those mechanisms. Yeah, but not just the money, there has to be an actual mechanism. And I'm not quite sure what the technical term is in the finance industry, but there has to be an actual mechanism for, you know, enabling the flow of that money. It's a bit like there has to be a way to monetise what Rohan and Wardy are doing. And that's where I think Rohan is very clever, because that's what is Rohan's thing. So, he is figuring out the how do you monetise, but not just the once, but how do you monetise and then manage to transfer that for other things? And so yeah, that's where I, you know, I don't obviously, I feel like I don't learn from them about landscape scale, or all those other things, because I feel like, you know, it's old hat for us. But as far as the financing, monetising, engaging with the finance sector, and more broadly, that for me, is where I'm just like, totally, totally new. Totally like, wow, amazing to watch and figure out how you guys do this.

25:26

Yeah. So, I think that they still working on it, you know, if I understand Rohan correctly, and it requires, I think a number of further conversations around understanding that piece, I think, my sense is that they've simply pivoted to the funding model for now. While they sought out the supply chain story, and yeah, well, they also because I mean, this is cutting edge stuff. You mentioned that, you know, the market isn't there yet, you know, there. And I think there's a lot of their different opinions about what the market is. The market is still in the making, you know, especially when it's around from what I understand on the biodiversity credit side, they're still working out what that is, you know,

27:26

And there are examples. So we did a carbon plus biodiversity so I had a meeting with Rohan and Wardy this morning, and they're tapping into ANU and Andrew Macintosh who they knew in particular, who worked with us where it was a very rushed, very last minute thing where the government wanted to fund, the previous government wanted to fund carbon plus biodiversity credits, and ran pilots or trials and did that through regional NRMS. So, we had a group of regional NRM organizations very, very, very too quickly having to run a trial on basically getting interest from farmers to generate carbon plus biodiversity credits, and Andrew McIntosh, and Don Butler and Dean, were all working behind, you know, working to make that happen looking up the system. So, Rohan and Wardy are tapping into that work, which is fabulous, but I also think there was a fair amount of learning that happened about you know, what's the biodiversity beat for that? But there's also a number of different credits. So, the reef credits work the Terrain NRM did with Green Collar, the Cassowary credits that they've done up in North Queensland as well. And then there's different versions of sort of biodiversity credits that people have been working, trying to work on, to get into the markets and there's a Queensland Ecomarkets that were started from the Queensland guys. So, the green, they've got a new CEO, I think it's Ecomarkets, and I am meant to be catching up with her. They, I think Terrain helped start them, Ecomarkets Australia, voluntary environmental markets, Australia's first independent environmental markets administrator. So, reef credit scheme, so built upon the reef credit work that one of our guys, Terrain NRM, did with Green Collar, and I think they're trying to encourage further forms of environmental credits or biodiversity credits. Reef credits were originally actually about credits to land holders for reducing negative runoff into the reef, as opposed to biodiversity by reducing nutrient runoff. But under that was the idea that you would then be pulling in other biodiversity credits as well. And credits, I think for one form of biodiversity credit. So, there is activity there, there is a lot of activity in that space. And people actually try to figure out what it is and how to do it in Australia, as well. But

no one using the mutual, well, no one's using quite the mutual model. I think that WA guys are doing something and using a co-op model. And some other some other sorts of examples. But yes, it's new, it's not really, it's sort of a nascent market, despite what a number of speakers say, including Pollination in the past. So, I think that's a real issue and a bit of a reality check.

30:53

So, Rohan was talking about the World Economic Forum, and how they, they prepping for that, and how McKinsey are working on, you know, this definition of a biodiversity credit, so I think, you know, it sounds like it's happening all over the place, but it hasn't consolidated into a shared understanding at this point in time. So, I suppose it's a hard thing to chase while that's becomes or seek clarification, you know, the pivot to funding remains fundamental, I think so pushing those things through so that supply actually is ready when the mind is understood.

31:44

That's right yeah. So that's, yeah. Sorry, you go.

31:49

Yeah. So, I'm also so what fascinates me about this particular case is that you've got to well, seeming, two entrepreneurs but I acknowledge and say two entrepreneurs, there's, there's a crowd of people behind these two entrepreneurs that are spearheading the movement really, into a larger climate-related solution. And it's more, it's also community related. Solution

32:33

I'm picturing I think, from your perspective, and from their perspective, sometimes, from my perspective, it looks like they're spearheading, but I think there are actually multiple spearheads happening. They're just all a bit different. Do you know what I mean? So, the one that has most visibility for you. But I think there are other spearheads as well, which probably also makes it more complicated.

32:59

No, but tell me more about that. How you see that oh, maybe is it that they also riding the wave of what is emerging and they kind of linking the dots and creating more of a visible understanding and structure of what's going on? But I'd like to know your multiple spearhead story?

33:20

Well, because I think there are other organizations also doing this, not necessarily just the mutual. So, the Eco-market guys, if you went and talk to the Queensland is involved in the Ecomarkets work or the Queensland Land Restoration Fund, they wouldn't see it Rohan and Wardy as spearheads, they will see themselves as spearheads, and Rohan and Wardy riding a

wave that that has been spearheaded by all these other groups. So, I guess what I'm saying is if you contextualise what Rohan and Wardy are doing, there's a lot more going on. And if you go to another part of that wave, other people on that wave wouldn't see Rohan and Wardy necessarily as the spearhead. They might see themselves as the spearhead or someone else. So, things like the Land Restoration Fund, for example, have helped Rohan and Wardy by funding it, they would see themselves as a part of the spearheading and as they've been doing a spearheading, and they will give you plenty of examples of other people who are doing work other than Rohan and Wardy, including people other people they have funded. So, and then you also have work happening through perhaps First Nations peoples who are getting different forms of investment where they would, building upon the carbon market, but saying that they're doing core benefits across biodiversity and cultural outcomes that are aligned with the carbon market but actually have been spearheading investment in biodiversity for collective good and for a much longer period of time. So, I guess I'm just saying I think that when you're just in Rohan and Wardy's world, it's easy to see that them as the spearhead. But actually, if you step back and look across everything over time, they're one of a few different lots spearheading, and some of them have been incredibly entrepreneurial. So, Terrain NRM and the previous CEO two times ago, I think it was, I think two previous years ago, and, and what became Green Collar, you know, we're, we're way more like, in front of the curve in making that stuff happen, you know, like, way before there was even any context for these things. So, I'm not diminishing what they're doing, because I think what they're doing is amazing, which is why, you know, I'm on board, and, you know, getting joint learning, but I do think there's a much broader suite of spearheading going on.

36:01

So, if we had to look, um, so, you know, my, my interest is to see how innovation ecosystems emerge, you know, and how they address a higher-order, ambition or intention. So, you know, they obviously, the focus of my world, but I love the fact that just contextualised, you know, what they're doing and how they're doing it. How would you then if we just looked at RFM, how would you describe their process of development, and maybe the model that is emerging from their efforts? And what about that? Maybe so sorry, they're three questions in one question. Yeah. What about that maybe is not necessarily unique, but a little different to all these other spearheading initiatives or organizations that, you know of

37:07

The mutual model is partly what's from my understanding this unique, but I might be wrong, because I haven't gone in and looked at all the others. But I think using the Farmers Mutual

legal structure is unique. To be honest, I don't understand how they've managed particularly to finance themselves to go on this journey. So, I haven't because I'm not in the, you know, on the board or in the, you know, in the core in that way, I do talk to them regularly and I feel like I'm allies with them. Though, sometimes I do worry, you know, I have to be a little careful, as in my professional position as CEO of a peak body, because I can't be seen as a peak body to necessarily endorse them. Yeah. But I don't quite understand how they've managed to be honest financially, and how the bank rolled. They have had that support from Queensland Land Restoration Fund, and some others and obviously, you know, raised funds in some different ways. So, but that, to me, is something that I do like you, I think, find remarkable that they've had the determination to hop onto something that they didn't quite understand. And just hold on and go with it. And so, watching that journey, and being a part of that journey, to me, and I think they probably get sick of me, because every time I talk to them, I go, wow, how incredible like things are moving so fast. You guys have made so much happen. Oh, my God, this is so you know, so they probably, I don't know, maybe they think I'm a bit of an odd fan girl sometimes or something? I don't know. But I do just find it quite incredible. Because when I first talked to them, I was quite sceptical. You know, I remember that thinking, oh, my God, you guys are so naive, like you have no idea of who's who in the zoo, and of how much has been going on and how complex this is. And so, I really thought they would just fade off pretty quickly thought it was worth an attempt, but I thought they would fade off quite quickly because of the complexity also, because of the fact that as you say the market is not yet. You know, well it's not even mature, it's just not it's not there. Yeah, which is why the trials that the government ran for the carbon plus biodiversity were so important. So, for me, I sort of I think I've been a bit astounded by that. And I think that's something you know, special that's gone on there as far as how they've held on. Having said that, I think there are other examples of that that I've seen, and I think that the reef credits and Cathaway Credits and the work that's happened up in North Queensland are examples of that. And I think that you know, there's other there's other things where you've seen that you've seen that genuine, who's almost like a true believer, you know, who gets an idea but isn't quite sure, but just push, push. So that's part of it. And I don't think I even remember the rest of your question.

40:14

With three that I know it's a process. And it was what makes them you know, what in their process and then model like, what is the model that's emerging here? And you mentioned, it's probably the mutual I don't know if there's more to that.

40:33

I think there's more to it. So yeah, with the model, I think there's the legal and business model, which is really important. And that goes to the power/agency question that we talked about, but also the robustness and integrity. So, you know, they could have really been like carpetbaggers as far as everyone perceived them to be without having a really robust model that has integrity sort of locked in. Yeah, um, to build that trust. But then I think the other things that they've added to the model, which I find to be so slightly amusing, because they're so bog standard for us, is that thing of oh my goodness, how amazing when you get collaborative outcomes and work with people together, and you get these broad, you know, for me, it's like, Well, duh, you know, I've been doing that for 30 years in my work, like, you know what I mean, like, yeah, that's just like, so I find it really slightly amusing, but I don't show that because it's wonderful when people buy on to that. But it's very funny that the thing that I've discovered that because that's the modus operandi that I know of what we do, that's how we do stuff on the ground, because NRM'ers don't own land, we have to work with people, and inspire them and get them to work collaboratively, to scale up, etc. So, so I think they've sort of re they've sort of discovered all these other things that other people do but then wrapped that together with the mutual model and other things. So, for me, there's not necessarily something that in and of itself is not special. And I've heard for decades and decades, every time someone discovers that stuff, they see themselves as you know, oh, well, look, I've just made a wheel and you have to pat them on the back and say, that's fabulous, you've made a wheel, and it rolls well, but you can sort of say, Oh, my God, there's so many other wheels out there. Because it's about wheels made in context by people with ownership, you know what I mean? So that's really good. But I do think that things like having the Farmers Mutual and the business model, and then the finance mechanism, and the monetisation, etc. all added together in that it's that combination, which then hopefully creates success for a scalable, transferable model for financing these sorts of activities in a different way. But as far as landscape scale cooperation for biodiversity outcomes, that's been around forever, we've been doing that forever. It's just that we haven't actually monetised that as a credit to get people to invest in in that way.

43:03

Yes, I was wondering, I was thinking about whether there is a new model emerging, like one would refer to a business model, you know, in, in corporate literature, for example, that they may be, at this time in the world, because of the types of problems we're trying to address or solve, which are collective and involve complex systems and, and communities and multiple role players that maybe, you know, naively there is a new form of organising, that is a mix.

That is a mix of commercial community, that is new to us. You know that as a world we, we haven't quite worked out yet. Do you think there's potential?

44:10

Yeah, I don't think that I'm sorry. And I'm just realizing I'm turning into an old cynic anti but it's not necessarily a cynic, I think is that I do actually believe there's nothing new in the world. I think the problems we're facing a new, but ... you know, a couple of years ago, I was sitting in a pub in the middle of Central Queensland, and reading about the pub on their drink's menu, funny old pub out little our back town, basically said, our pub is a cooperative owned community for the benefit of the community. Because 120 years ago, we realised that our community, we're all and the local minders, etc. we're all spending, you know, spending their hard-earned money on beer and whatever. And it was all going into the pocket of a publican who was taking it out to spend it in the city, and we didn't want that, and the pub is about to close down and blah, blah, blah anyway, so for collective community good, the township, bought the pub, turned it into a coop, employed all the young people. And I remember when I went into the pub to get oh my god, this was the most diverse bar staff I've ever seen, you know, was fantastic. Like, there's a girl, there was a old grumpy guy there was, you know, it was just, it was great. So, they did it to employ, they did it that all the money from the from the pub goes back into community, etc, etc, etc. But it's 120 years old, but it was more than 120 years old, I can't remember it was post gold rush. And that was all because there was a need to bring together the commercial with the community and collective and the committee that ran the pub, that ran the co-op, was a community elected committee. You know what I mean, so it was community. I mean, it was just, it was fabulous. And it made me realise, and that's just one example of many. But it made me realise, oh, my God, we've been figuring this out forever. Do you know what I mean? But we've actually having to deal with problems in different forms forever and finding wonderful creative solutions to bring together the commercial with the community with the public good. And that's what frustrates me a bit because I feel like there's this collective amnesia, that has come about where we forget that, of course, we've had to try and deal with those things in the past. And we've created models in the past, to collectively deal with those things. And we have so in the environment space as well, you know, because there have been major events environmentally in the past that we've had to also, you know, collectively deal with. So, I guess what I'm saying is, and it's not to be, I'm not being dismissive, because something is invented in a context in a new way. It's great because it's done for, it's owned by the people who create it. And it's done in that particular context. And that's really important. But I guess what I'm saying is that I just think there's, I think we have

done it before in different ways and continue to do it. But the length that you talk about is really good. You know, when you talked about collaborative intersections, I reckon exploring the collaborative intersection of the commercial model, though the mutual is a very particular non-commercial commercial model. But when is that the link between that and the play space stuff? And the community and social good stuff, I think is just fascinating. And I think if then, were if you were exploring collaborative intersections with regard some of those things, that would be really interesting.

44:47

Wow, nice. A nice way to come back to it. You know, this conversation has been thrilling. Thank you. But there was just one last. Good. I had a question. Am I the one that's asked you? Oh, yes, yes, yes. So, I realise I have 10 minutes left with you. So, I want to make the most of the ... what to me has also been fascinating is the use of technology. And like the Miro board, Zoom, LinkedIn, and now the Regen Digital platform for the digital twin, you know, and that Regen Digital is going to go on to play a very significant role in terms of connecting supply chain with farmers and consumers with farmers. So, it's also there's like socio materiality, this concept of as humans and technology intertwine, we start creating, you know, an enhanced capability to build new solutions, your thoughts on that?

48:54

I really agree. I think the bits, the bits, and it was interesting, because we talked about that with regard to the traceability work that they're doing. That I meant to be on the project committee, and I never turn up because I don't have time, which has been bad, but I'm only a tiny, tiny player.

49:15

You're such a valuable contributor. I'm not surprised everybody wants you.

49:20

I wouldn't. I wouldn't say that. I mean, I love having the opportunity to talk to people like you and Rohan and Wardy because this is all the stuff you know, that I care about and having people who force you to think it through. And then that you learn from in that way is just an absolute pleasure. But going back to technology, I think you've really like I really think you've hit onto something there. Because I think the digital twin stuff, the information technology and where we've been able to go with that, including the potential for adding remote sensing to reduce transaction costs and increase our understanding of diversity on the ground, knowing that we still have to do the genuine on ground stuff. And then also the traceability work that they're doing so that you can, in fact, tie information back to the actual place and project and create

that level of integrity in the market. That to me is what's the right word, is very powerful and it's almost like it could almost be the tipping point for helping enable this to happen, the fact that we have that technological capacity to do those. And also, not just making it happen, but actually making it happen at scale, as well. So, I think you've really, you're really hitting a nail for me on that one than that tech. And it was interesting talking to Rohan this morning too, because he sort of, because he's so much more literature on this stuff than I am. And he sort of casually said, oh, yes, and if we can have regional NRM plans, or blah, blah, blah, and so we get there searchable, but all in one, la la la, or in whatever format, you know, it was just like, yes, you know, that's exactly what we want to be able to do. And we're getting to the stage now, where we have the capacity, we don't have the funding, but we have the capacity to be able to do those things. And that that can be the tipping point, sometimes I think, for making these things viable. And it made me more aware, as I have in the past that Rohan has also brought certain - so Wardy's skills and understanding are probably once I'm more attuned to, you know, through my sector, whereas Rohan bring skills and language to be honest, that I'm less familiar with that I think people end up being really important, not just in the understanding of the finance and financing sector, be it you know, and how that works, but then also, there's the tech some of the tech stuff, that becomes really important. And I think the fact that they're now, as I said to them this morning, the fact that they're almost managing to, to join up some of those puzzle pieces. So even though when someone if someone watched from afar, they go, well, what the hell are they doing that traceability project for over there? Why are they doing that over there? And why are they setting up a mutual over here, but this morning, it was just great to hear them, even though I could see that and understand because I've played in place for a while to see them just saying, and this will do this and do this, and you know, and then it stacks up as far as the technology and the IT and then you know, the market mechanism, etc. So, it was very it was? Yeah, I think that's going to make a huge difference. The fact that they are first movers for some of that is really fascinating as well. Yeah. And I think it's that first mover for some of that joining up with the tech that's really, really significant to Yeah, if they if they managed to make it work.

52:51

yes. Pull it through. Yeah. That why last point is that when I first looked at, you know, I kind of mapped out what they had as bits and pieces, like they had mutual, then Regen Digital, then Traprock, then like, and then some kind of commentary about supply chain, and then Regen Funds and Trading, you know, so that was another entity that that they had. And so, this is this, I just read about all of these entities, and I mapped them out. And I thought this is really

interesting because I just read a paper about opportunities as artefact, and entrepreneurship as design. So, the so let's say Regen Digital is an opportunity Regen Funding and Trading you the opportunity, Traprock as an opportunity, but what they act as artefacts that inspire entrepreneurial design around them. So, on their own, they look interesting, but when you start joining these dots, suddenly there's a bit of a different picture that emerges. So, they I feel like these artefacts are like stepping-stones towards a bigger capability.

54:19

Yes. Which is a much more eloquent way of saying what I was saying about pulling the jigsaw pieces together. Exactly. It's like as individual pieces, they're not that impressive. Put them together and see where they join perfectly. And then suddenly you have something that has much more impact. But the way you explained it, I think was much, much better. And it's interesting, it's interesting, too. It would be interesting to question them about how much they understood all of that or how much is also in a sense opportunistic and almost serendipitous as well about together because for me I tend to be more of a complex systems mapping type person, so in my head I do tend to... it's interesting I haven't, it's taken me a while to realise that other people don't have that way of approaching things, but I tend to sort of see that, oh, you need this framework, you need these things, and you need to.... But that's why I also like that you brought technology in, because technology then becomes an enabler for them to be able to do these things. But they have to create the appropriate tools, using that technology, in order to actually you know, make it run, which is why the traceability project is so important, for example.

55:40

This has been amazing. Thank you. It's been wonderful how the interviews have just come at the right time, like the day before certain things sink, man, you have a conversation with someone and it just like boom, you know, it flows everything again. And that's how this conversation has been. Thank you. This has been amazing.

56:04

I'm glad you're doing this and how interesting I am slightly envious, because I do think doing a PhD, can be just a wonderful mind-blowing opportunity where you get to just indulge in, you know, learning and thinking and following things through and it's just, it's a very, very special opportunity. So, it's fun

56:22

to meet, and to meet such extraordinary human beings, you know, doing such extraordinary things. It's, it does feel like a real privilege. So, thank you so much. And I hope that we get a Trump like when I'm tapering, so let's have another conversation because I really, yeah

56:41

oh, no, that's okay. But yeah, stay in touch during because I'd love to know where you're getting to as well. I'd love to get an update from you. That would be great.

56:49

Lovely. Lovely. I'll definitely take it up. Thanks, Kate. Hope the news is good and that you feel a little stronger.

Farmer and Members Council

I mean, I know a little bit about your background, but I'd love to hear your story and how you became involved with RFM. And, you know, I've also heard a lot about the magnificent things you've done. But I'd really like to hear your story, if you wouldn't mind sharing that with me.

00:17

Not at all. So how did I get involved with RFM? I actually don't remember. What, how I heard about RFM? I don't know, I just only remember that through that initial contact, I had one phone call with Wardy. And he said, you know, sounds like you have a lot to add. Why don't you join the steering committee at the time and said, I'm very busy. And he said, oh, don't worry, it'll take only half an hour of your time, every fortnight. I said Oh, that's okay. Yeah, happy to do that. And that was probably a year and a bit ago. And since then, I've probably spent about six months. But it's all good. I mean, it's always been a pleasure. But that's how it started, that phone call with Wardy, which I have no idea how it came about. You know, he knows everybody. So, he probably was probably somebody connecting us.

01:42

Yes, he's good like that, he's definitely got your hook line and sinker. Definitely. So two things I'd like to know is what in your view? Has the role of the steering committee been? Number one? And, secondly, how would you describe your you know, what you've done with them over the last year or so?

02:08

Yeah, first question, what's the role of the steering committee? It's been mostly I think, advisory. In the very early days, there was a key co-design of the original principles of the mutual, that was one thing. And I wasn't there at the time. But then quickly after, and that's when I joined, the mutual was already established. And the role of the steering committee was far more a think tank, reflection group, advisory to Wardy and Rohan, who were actually doing all the work. There was a little bit of work done in terms of the structure of the members committee and the board - so the governance of the mutual. We did a little bit of actual work on that, but it's mostly been through the fortnightly meetings, advising Rohan and Wardy about what we think should be done, or they're asking us questions. There's certainly a formal role in terms of governance because they do report formally. But that's not the important bit of the steering committee. It was more advisory. Yeah.

03:47

Yeah, carry on.

03:48

No, no, no, it was to say the second question, what I've done was the mutual - our number of things which is stepping out of the role of stepping out of a members committee or the steering committee, there was more getting involved into actual projects, especially one which was the Traprock project, and more generally getting involved into trying to develop what's related to carbon farming. So, I did extract the decision tree for carbon farming methods for example, which is carbon farming methods is a very complex legal text. So, they wanted to automate that or make it simpler for the members of the mutual, so I did create out of that text a very simple decision tree, which is to say, okay, step one, do this - look at your land. Does it have trees? Yes, no. And so, to progress, so if you would want to run a carbon farming project, this is the decision tree that you would go through, I did that. And then got involved into the Traprock project where we did field visit, checking the eligibility of the farm, trying to put together a project for them, which didn't mature in the end. But that was quite intense in trying to get the first landscape project in Traprock up and running. And it was Kym Wilson, for example, who was looking more at all the ecology aspects, and that was specifically looking at the carbon farming aspects.

05:41

Right, so where's the Traprock project now?

05:49

Where is it at? The purpose of all that activity was to create a transactionable project out of all the participants, which we realised in June, that to create that they needed to be an entity that was transactionable with and that needed to be the mutual because it needs to federate all the interests of all the farmers. The actual structure of that legally needed to have financial licence, because the carbon credits in Australia are tradable financial instruments, so they're heavily regulated from that perspective. And they Mutual didn't have that financial licence. So, we couldn't create the project in time for the first access to funds, it was supposed to be funded by the Land Restoration Fund. But we couldn't submit the project because we because the mutual didn't have that financial services licence. We tried to have another structure which was one where all the farmers would lease part of the land to the Mutual, which would pay them a lease rent, so to speak back, but that was probably three days before the project was due. And it was really an attempt to bypass that financial services licence and it didn't work. The farmers were not going to sign the lease over their land in three days, not possible. It's completely understandable. So that's where it stopped. And now that structure is going to be put in place with a mutual, the tradable instrument will be actually created, and then we will go back to the

Land Restoration Fund to fund it or find another vendor for that project. So, the project exists, is ready to go and it just fell over at the last minute because of that financial licence issue.

08:02

In the time that you have been with or, you know, being co-creating and supporting and advising RFM, what's a new view have been some of the key developments that have enabled it's forward movement?

08:29

Think that most to things not a key development. But I think what's enabled forward movement is Wardy and Rohan, I mean a huge credit to them for their flexibility, ability to navigate, reinvent, adjust because it's a space that absolutely nobody knows. And they've been able to create at the same time, you know, create while flying. Something which is actually only starting to take shape, and it's very different from the original vision. So that's how it happened. What made it possible, which was more your question, I suppose, is the fact that there is at this moment in time an incredible amount of movement for biodiversity, regen agriculture, carbon farming, environmental concerns in Australia. I mean, the number of funding that's available through every single state is crazy. And even if it's not funding, it's at least interest from everybody, the private sector, every single large company, from banks to telcos, to our interest in them talking. There's, you know, even global entities like the World Economic Forum, are all looking at possibilities for making that happen. So, there's an incredible amount of opportunity that made it possible to find, to find a way that I think that's the key element that propelled RFM forward so far is that anywhere you turn, people are interested and will help you or lend you money. I mean it sounds easy, it's not easy. Because everybody's talking a different language. And it's completely complicated, and nobody really knows what they're doing. But at least there's a move, everybody wants to move forward.

10:48

So, um, you know, I see the fluidity and flexibility of Wardy and Rohan and how they've, like, exquisitely navigated, you know, uncertain and emerging terrain. But I also see with that, and maybe you can comment on that, are individuals like yourself, and others, you know, some on the steering committee, some from the members committee, who, who have also contributed in very specific ways, at very specific times. You know, it felt like that, in itself is also fluid, individual contributions that, that come at pivotal moments. So, I'm very curious about that team dynamic. So, it's not really, I mean, is it a team? Is it not a team, but I'm interested in how specific individuals or unique individuals or individuals who make a specific or unique

contribution? How have you perceived that over, you know, from inception to now, what have been significant contributions by individuals?

12:02

That are really, really insightful observations, because you're absolutely right. I don't think without that. I'd say six to seven members in that steering committee who sort of cocooned maybe Wardy and Rohan and, it wouldn't have happened either. You're entirely right. So, it's not a team. Definitely not a team. In the proper sense, it's not that you know, there's no antagonism or anything, but there's no strong connection either. There is strong common interest. But I have met in person on the one of the team members of the steering committee, even though we've been sort of working together and working hard for the past 18 months maybe now. And spending a lot of time. So, it's an interesting collection of individuals which come and go. Not everybody's always present at the meetings. So, it's very fluid and informal. There's a core group of about say, Jack, the McCoskers, Jim, me, maybe six or seven people, max, with four to five being here, always four to five of them being here. Everybody has very specific views. So very specific skills, expertise, experience to bring, and a very specific lens on seeing things as well. Jim, to take Jim Campbell as an example, Jim is a banker by trade. So, he's got a very financial view. He's extremely rigorous in his approach. extremely detailed. You wouldn't believe how detailed you know either Myers Briggs he'll be like the super, super, super, super J, oh my God

14:54

He redefines J

14:58

Oh, yeah, absolutely. Yes. He's like, He's the archetype.

15:06

And he's also extremely frank and direct, but in a very amiable way. So, he is the one who will say, without offending anyone, this is complete bullshit, we're going in the wrong direction. So, he's very useful as, you know, the black hat because he's not a pessimist, or, you know, he's actually quite forward looking. But he'll always tell you the truth. Jack, for example, has a background in journalism, I think. So, she's very well connected. And her lens is a political lens. So, the group of individuals are very different, but useful views on things. So that's how it works. And you're entirely right to say that that group actually brings a lot because anyone is always willing to take on part of the work or, you know, helping and connecting with incredibly different skills, experience, and interests as well.

16:15

So, there's that core group, but it also seems like what he brings in so and I understand this group is not paid - it does all of this voluntarily. Right. And then that, you know, it seems like he would bring in I think someone like Kristin, for example, I think she is paid. I don't know whether it covers all of her time. I think she's paid one day a week or something like that.

16:57

So that felt significant as well, like in terms of people who are playing specific roles and how I understood her role was that she added some legitimacy with other institutional structures on the ground. Are there other roles like yet that you're aware of?

17:18

Danny. I think he's paid as well. Little tiny amount. So, he's, you know, part of the the official central team as well. And he's well connected in Victoria. And therefore, he's more like the Victorian representative. Because every state in Australia loves to have their own people, they are very parochial so you're not going to have someone to from Queensland talking to Victorian? So, he's a Victorian representative for example. Who else is there are many of those others in the steering committee? I don't think so. I missed the creation of the board so they there is a board member of the mutual other than Wardy and Rohan, whose name escapes me who has a formal governance role? Which I've never met. So, I can't talk to him too much.

18:33

And I think that's it apart from those two Danny and Kristin and him. Kym is more specifically for Traprock. Well, she does more specifically the each of the landscape programme is revolves around a team of eight that have very specific role. There is one person who's supposed to be representative of the farmers. There's one person who's supposed to be the organisers is one person who's supposed to be the Regen advisor. There's one etc., etc. And Kym was the Regen advisor for the Traprock project. And because she was the first one and because she was very active, she's playing a very active role in that project, which was main project of the mutual for a long while. But she's not she's not sitting in a steering committee, for example, all the members committee, but she was instrumental in developing the Traprock project and helping but specifically for the Traprock project.

19:41

So, the one thing and I feel that it appears to me is that obviously the initial formation was RFM and to get the concept into practice, we saw up, so Regen Digital emerge is a subsidiary right, then Regen Trading and Funds, I think, is that another subsidiary? And then yeah, and then we have the Traprock project, right. So, they all feel like they are opportunities or artefacts, you know, they feel like artefacts around which the concept of RFM is unfolding. So, you

know, the, the role of Wardy and Rohan is not just to create an enterprise but to create a market, you know, so they also have to go and speak to the financial services industry or the financial industry to, you know, regarding products, so, you know, they're creating products, and they're creating a market for the product at the same time. So, you'd feel like, these entities become these artefacts around which the RFM vision manifests or materialises in sub enterprises. And in a way, what's happening here is that there's an entrepreneurial ecosystem beginning to emerge. And normally, you would find this ecosystem model, you know, being created by government entities, business entities, funding entities, you know, it's like, it's a combination of multiple stakeholders coming together around this bigger idea. And, you know, collaboratively shaping all of these, these sub entities into a bigger entity. And it seems like Wardy and Rohan are doing this, you know, from the entrepreneurial the ground up, as opposed to from the, you know, the policymaking business making, where it's entrepreneurs, then become plugins to that in this kind of corporate policymaking space. Entrepreneurs are plugins to fill the gap to deliver to this big idea. Whereas in when I was RFM, it's the entrepreneurs are starting this massive movement to respond to market opportunity and the climate imperative. So, I have what I was interested to get your view on this process, if one had to articulate it, if one had to relate it in the context of an ecosystem model emerging? How do you see this?

23:02

Again, is very good observation. And you know, one little bit is written about that. Oh, well, there is once. This is a really interesting question for the future and the replication of it. Why isn't it? So why is it so stumbling? What's the impetus behind that? To be clear, there's no market, there's only the dream of a market, which is equally supported by the climate change imperative. So, it's partly - there's a business angle, you know, everybody hopes to make money out of it. It's normal. But there's also a big motivation, which is climate change imperative, which is why so many people are contributing lots of time without being paid for it, or the hope of being paid through the Mutual structure, at least Wardy and Rohan and people have a hope of getting something out of it, and they should be rewarded for the effort. But I don't think anybody in the steering committee has any hope of seeing a cent ever. Nor is it our motivation. But the fact that they such a long and sustained effort exists is because it's a dream, to dream of a market but it also does and very importantly, there's a there's climate change emergency. If it wasn't for that, I don't think you'll have the same movement at all. That's why it's moved along. Now you can say, why is it? A? So why instead of being pushed from the, you know, by entrepreneurs and two individuals? Why isn't it created from the top by policy? And the other

question is why is it happening so organically instead of by design? Because it doesn't happen? It's because they had problems and new problems. Nobody understands how to create the market out of biodiversity. Nobody, and we are years away from that, years, for many reasons. So, there's no, it's too hard a path to take to the power of 10. Therefore, any policymaker in government, with a two-year vision would have no incentive of actually cracking the problem. So, there's no incentive to crack a problem that is incredibly difficult. To crack that problem, you need the best management consulting firm on earth, 50 of them working day and night for two years, and maybe there's solution that will emerge, it's incredibly complex. And there is no motivation from the people that actually have the assets, that is the landowners. It's barely now that you can actually interest a farmer into biodiversity, not that they're not interested. They are people who are incredibly time poor, and focused on the on the day-to-day... the minute is, and I speak to the new farmer. And probably every week, the minute you start to try to articulate the sheer complexity of what we're talking about, it's finished, it says like, okay, come back and talk to me in five years, when you know what you're talking about, because obviously, it's nuts. It's full of jargon. And it's so it's, it's, it's evolving, it's a known, it's complex, there's no incentive for policymakers to crack it, there's no incentive for people who should be participants in those markets, to participate. So, it's a perfect situation for, for nobody to do anything. And that's why it's been happening for years and years and years. Now, the only movement is because people start thinking, are they motivated by money and saying, there's money to be made, or by urgency of the climate change, and in political imperatives. It's only that very recent coincidence that make things happen. But even then, I don't know a policymaker that is actually trying to really, really crack the problem. I mean, the if you read the Repair Market Bill in Australia, which is quite advanced, it's still not the right answer. It's still so obviously not the right answer, that its only value is that it's stepping in accurately. So, no one honestly understands what they're talking about. So, it's a very interesting that is such an important ecosystem is happening through the sheer will of two individuals that are flexible, and nimble enough to just invent things on the fly. And actually, probably one of the biggest, not one of the biggest, but one of the most effective engines of resolution and I'm certain I am not alone. Many of them have read everywhere in the world. But that's how change will happen on a topic of that importance which is staggering.

30:02

Yes. So, what drew me to RFM was, you know, this emergence of an ecosystem model, you know, that was being built on the fly, as you know, people understood what was required next. Right. And, and I was wondering if, and it also makes sense, because, you know, that's how

businesses do innovate, you know, they are wondering if, if one step back a bit and said, okay, hang on, you know, where you're creating an ecosystem here. And it is happening, like, I'm interviewing Richard Heath of the Australian Farm Institute's on Monday, but I was noticing on his LinkedIn feed that he's, you know, he's also saying, we need systemic, holistic ecosystem-based solutions and thinking now, you know, that we can't solve these problems at a, at a business level anymore, we need to solve it at an ecosystem level. And I think that once the reporting requirements, you know, change, it's very evident to the corporate world that is going to happen, you know, that their reach now has to extend way beyond, you know, I mean, it is supply chain, but it has to go, it has to go wider than that. No. So there is this one was pressing urgency to understand how to quickly create at scale and at ecosystem level, and to understand how to build ecosystem models, you know. And I was wondering if you saw kind of any beginning movements in this regard, or developments or insights or? Yeah. The question would be, is there any value in kind of stepping back and looking at RFM and saying, going, it's dipping into the future and saying, if we designed a, if we designed an ecosystem operating model, as opposed to a business model? How differently would how would that look, you know, what, what would that require?

32:46

The ecosystem development model, I think is the only thing that can crack this problem. And probably many other societal problems that we're going to face in the future, by cutting across many different layers of stakeholders. I do think it's the only thing that could solve these problems through nimbleness. Can it be codified and so somehow established? I don't know, maybe it should. And maybe it should become a new form of - I am trying to find a word that hasn't been used before - not organization in the sense of an enterprise, but a new form or entity that functions differently. Why does it need to be different is because the motivations need to be different. And that's why it hasn't happened so far until that sort of new model emerged is because they're completely paralysed. To do what Rohan and Wardy are doing, a business would have had to have a business case in the beginning. A policymaker will have required view of, you know, how can we solve that in two years and get votes. So, only somebody who's got that nimble, again, an entity, not necessarily an individual, but an entity that has that nimbleness of connecting all those dots. So, it's a question of capability, in terms of how to function, and it also a question of motivation. Nobody would do it without a dreamy-type motivation. And nobody would do it without that. And nobody would succeed without that nimbleness. It's a completely different operating model.

36:37

you know, it's like Rohan and Wardy are like a Steve Jobs with the iPhone, you know, he saw how to pull together, or combine things that had never been combined before, and as a result, completely transcend ideas of, you know, what's possible. And that's what they're doing. And I was wondering if one, if there's a consciousness around that, you know, that, and that's, you know, doesn't have to influence what they're doing and how they're working? Because obviously, that's working. But you know, in terms of thinking into the future, if, if that is what is emerging here, is there an opportunity to consciously articulate that? And does that help in terms of who you bring to the party? Or who you include in the conversation? Or does that mean that more support can come to the party quicker, because there's a, there's an idea of what needs to come in to make this stage work? What needs to come in to make the next stage work? What needs to come in? You know, so who are the who are all the ecosystem contributors, who bring very specific required contribution at specific times in the evolution in the emergence and evolution?

38:16

Agree. Think the heartbeat and the difference with the iPhone is that there's no plan. There's absolutely no plan. At least Steve Jobs could articulate what his iPhone would look like. Nobody can articulate what the solution would, would be. And I don't think it and that vision needs to be created instead of driven by an individual. And that constant co-creation is what's hard. So not hard in terms of painful but it has never been done before. Maybe it has, you know, you see there probably has been actually if you think about it. My daughter would tell me off for nothing of that before. There's one, there's one field where that exists and works very well. But they're the discovery of some something completely unknown, through the collective efforts of people who are actually contributing without necessarily plan and an orchestrator who sort of directs depending on what is found and actually creates that end product on the fly, without it being predefined ... and many maybe, you know he was Steve Jobs is not that because he probably has a had a vision, but it wasn't, you know, he couldn't draw it. So, he was the orchestrator trying to navigate saying, oh, this is too big I need someone who's going to shrink it. So, there is a process like that. What I was referring to in terms of the ecosystem that has worked in the past to do that is, some large science projects. And probably a lot of large science project today. And I'm talking about research where the solution does not exist, that are completely created by Not long time ago, the film Oppenheimer... Have you seen it?

40:58

No, I haven't yet.

41:02

Yes, it through that lens. The way that project is driven, and how he actually does exactly that. He does that orchestration role without necessarily a vision of what he's going to be created. He just brings people because he knows they are good contributors that will actually contribute to that creation without actually knowing how. So science, pure science and advanced science has probably functioned this way, a little bit, we can see the Hawkins bit and the really leading scientists usually play that sort of catalyst role, where they bring people and then make them collaborate without necessarily a definite end in mind. Yes, that's what makes it happen. And, again, if you think about process skills, and motivation, their motivation is purely because they want to make it work. They're a bit like Wardy and Rohan is mostly because they want to make it work, far more so than they want to make money out of it. So there needs to be that catalyst and that motivation. And then the ability to bring collaboration through it. So yes, science probably has progressed like that, especially specific science projects. Do I see it happening in real life? No, I've never seen a large corporation, for example, being interested in that form of process, simply because it's too uncertain. Uncertainty of profit is what drives corporations, you have entities like, again, think tanks, etc. but their means are usually limited. You can't say that Wardy and Rohan had a lot of things at their disposal. Maybe they are not as nimble. Entities like consulting firms, etc., who have definitely the brain power and do a lot of pro bono work, so their motivation is not entirely money, probably have the ability to do it, but do they have the motivation to do it? Can you see a person, younger, large consulting firm who would have the means have the motivation to pursue climate change? Probably not. Even though they would say that, but the probably is not probably.

43:49

It's also personal, because everybody that I've spoken to who are involved with RFM feel passionately about this transformation, you know, and creating with new possibility, whereas you're not going to get that necessarily. So, you have to pull in, if there are ecosystem partners, they have to come in with maybe not the same kind of passion, but the same level of passion, because they're, you know, this, this is this is being created through passionate purpose. Everybody I've spoken to that is involved in this initiative, comes from a background where they've either had a Damascus experience or you know, they've decided that they want to repurpose their contribution in the world. And that becomes important in this space. So, whoever comes to the party needs to come with that orientation or else then it just becomes an intellectual exercise. It doesn't, it loses its creativity, and it loses its fluidity because people

who come in with an idea of providing an answer, are not coming in with an openness that is necessary in this type of evolution.

45:11

That might be why, you know, other enterprises or policymaking and government bodies aren't really successful because it didn't have the passion. So, you're absolutely right. And if you throw that back to the Steve Jobs, or the Oppenheimer's, or the great scientists, they and their teams have that passion. And that's actually what motivates them more than anything else. So, you are dead, right, the individual is important. And the passion of that individual for the topic is important, because it's the only thing that can lead you through such uncertainty. And, again, I say hard times not in terms of painful times, but uncertainty is not easy to manage. If you take RFM the creation of RFM, itself, and then digital, and then trading - all because it needed to be done, and all that requires work. And there's not a hint of discouragement. When they say, ah, now we have to do this. This is like, oh, yeah, no, if we do this, it'll work. And we have been doing it, if we do it, it'll work, which is a completely different attitude. Yes, you are right, passion is a totally key ingredient, absolutely.

46:31

So first of all, I realise I've taken up an hour already, I mean, I know I ruined the first 10 minutes earlier, but I'm really loving the conversation. And I maybe want to ask you one last question, if that's okay. And then if we progress and I start building something, some insight, I'd love to, you know, have a conversation with you again, and test some of the things, but I wanted to know, what you think. Oh, there was one other comment was that the big thing that I also see Wardy doing in particular, is paradigm shifting, you know, through the education, through the co-design, through the online meetings, everything is collaborative, but in all of those sorts of conversations, a paradigm shifts, a way of thinking shifts, you know, or, or new way of thinking emerges because of those very critical collaborative conversations. So that has also felt like they are shapeshifters, they huge shapeshifters and have been over time. So, I wanted to the last question was What do you think is critical right now? And what are the next steps and what do you think is critical to the next steps right now?

48:13

That's such a good question. And before I answer that, I was about to offer to have another conversation because I'd be very interested to see where you land with that because it's a fascinating topic to say. So, and I forgot it was what was your last question? I just forgot to respond to your last comment

I would love that because I'm already starting to see some concepts I wouldn't mind having a conversation around like just what I'm finding that you know, the current language is quite limiting because it also plants you in an organizational space which I don't want to be planted in because I think something else is happening here like you know, just even the word team for example feels like you know so, so I would love I've got a few concepts you know, I'd love to have that chat with you and explore that next steps and what is needed

49:29

Oh, yes. So, alliances slightly differently. My theory is that my, one of my views for the for RFM is money. Money and scale. And the basis of it is the ability, the basis of RFM and the ability to represent farmers, and that's based on a membership base. And at the moment for good reason of developing the landscape model, you know, finding and pursuing government funds that actually can help develop digital, can help develop trading, and all that discovery process, has distracted us from building that membership base. Now, there's a question of timing, which is, when do we actually go back to that, and declare, we found the sort sufficiently final shape to be able to go back to the member to building a membership base and being useful to them, because we can prove that we can actually deliver on the original objective, which is to create valuable transactions. At the moment, we can create valuable transactions through landscape projects, which are in scale limited. And I'm wondering whether that inherently limits the model of the mutual to just being a project creator, as opposed to, which is sort of picking, as opposed to a mutual which is pushed by a base, and maybe then that original model doesn't work? And there is not yet enough interest in the base to make it worthwhile? Maybe? But that's a question mark. So, to me, that's, you know, what's required? I think my fear is that we're going to reach a point where we ran the risk of whittling the model because of lack of that base. But the question is how hard do we pursue the creation of that base at the expense of building the model itself? It's a really hard choice, especially when we don't know what the final answer is. So, when do we know? When do we say righto RFM is ready, because it hasn't been ready for two years. And it's still evolving in what it needs to be. So, will there be a point, will we discover what needs to be too late? Because we won't have that membership which would actually create its power. Because, you know, Wardy's story is that we represent the farmers. But we only represent our members, and we don't have that many of them. So that's it. So that's one of my fears. Which sort of answers your question, what's required is that I guess what's required is that balance between (a) let's make sure that we navigate the creation at the same time as building the foundation so that we don't build a balloon that has no foundation and is beautiful but is not supported by anything. So, building

a pyramid, is required building the base as well as being building the tip so maybe we are too focused on the tip. So that's what's required. In terms of next steps, I think Wardy and Rohan are doing exactly what needs to be done when it needs to be done, so next step is to continue to discover the model and try to solidify it as much as possible.

54:03

So, its discovery-led development is what you're saying. (Shereen) Absolutely. And I don't think anyone can say the next step is this. The next step is what we find is necessary. It's unfolding exactly, and I don't think anyone knows. If I were to articulate the next step... so supply chain and corporate funded - supply chain funding, so to speak. We need to step away from -project-based activities to more supply-chain-based activity which means that creating Traprock is great but when that turns into something that the farmers can tag to the ears of their sheep, and sell to the normal buyers, that's when it becomes different and part of business as usual, and therefore far more sustainable.(So, an inseting focus, as opposed to an offsetting focus. So, carbon inseting, so it's like where they invest, as opposed to, you know, I'm just trading – offsetting: Shereen)

Exactly an investment that actually is transportable through the supply chain, and tradable through the supply chain, as opposed to somebody creating your credit that just evaporates and is used somewhere else. So yeah, that's a good analogy. But it's something that is more sustainable than project-based activities, probably the next step. But again, it's, as you said, well, it's a discovery-led process, so I don't know who can say what the next steps are. It'd be very interesting to think what to Wardy and Rohan who are the core of it, and as I sit on the steering committee, myself included - nobody has a complete visibility of what's happening, (a) because we're not there at every meeting and (b) because there's a lot of things happening between meetings, and despite very good reporting is probably not well, well understood. Very interesting to see what you see by having probably a more complete view

Farmer, Members Council, Murray Darling Landscape Impact Programme

Okay. Yeah, as I say, Wardy has told me so much about you. And also, what I've seen online is fantastic. So, I'm super excited to hear your story and, and how it ties in with RFM. And the very rapid evolution or development of it

00:32

Let me not waste time and give you the opportunity to share your story.

00:43

And yes, it's a bit of a mutual appreciation society there with Regen Farmers Mutual. You know, there's wonderful serendipities that happen. And you don't know whether they're planned or not, but you, you know, I think it's pretty obvious that we're all meant to hang out together and work, you know, come up with solutions together, when we sort of have these shared values. I, you know, I got onto the LinkedIn quite early. When I when I first heard about it sort of been there for over a decade. And there's not a lot of people whose consistent posting I would follow or agree with, but for some reason, Wardy, and a couple of the other members come up with consistently interesting and fresh, and, you know, really relevant things that they pick up or curate. So, I think that's another sort of reaffirmation that we're, we're thinking ahead, and we're sticking together.

01:48

Yeah. So how did you I mean, tell me a little bit about yourself and how you made the connection with RFM. And how you started co-creating together

02:03

Well, I trained as a journalist, I was a financial journalist. And I've actually as a tabloid journalist first and then I ran away to South America, which is part of the story because what I saw there was a really fascinating innovation ecosystem in Buenos Aires, in, you know, the start of the millennium. And what I saw there was an IT was the internet, you know, it was an internet boom. And, and I was sort of a part of it, because I needed native English speakers. As a front and there were parties to be had and places to go. So yeah, I worked for a couple of startups and I worked on the Buenos Aires Herald and freelanced and, and you know, sort of made my way as a journalist from Allaca to Patagonia, over two years, but stopped, stopped for most of that time in Buenos Aires, when it was all happening, and then when it all crashed and fell down in a massive heap - and there were riots, you know, this in the street that I lived in and people banging pots and then they unhooked the peso, from the from the US dollar. And the absolute arse fell out of the economy, and I witnessed what happens in innovation and what happens when that's going on? So when I first got there, there was, you know, telling stories,

but they'd have these first Tuesday's which were famous, back then the first Tuesday was when you go and pitch, you know, for angel investors and, and others and so, but I'd sit quietly back with journalists, observational view and have a look at these exquisitely dressed Italian gentleman in what were Australian wool suits. I mean, I could say that we're straight, straight out of Zenia, and they're mafia, for sure. But the paper that I've been talking to where these kids out of San Francisco with, pushed up hair, and, you know, you know, bulletproof, and their Buenos Aires contemporaries as well, and I was just watch, you know, watch this interaction. And you think, oh, how's this going to end? Anyway? I did. I was working for one where it did end, I had some best flat mates, who had a bit of me to mention and told me, I should probably get out of there, go to Mexico. Place that I'd been, you know, sort of working or freelancing. And there was not a phone, not a computer, nothing this place in San Telmo, which was sort of a really beautiful kind of like an antiques district or Sawyer Soho for Buenos Aires, where there were some of the startups where all the phones are disconnected and things. So, money that big money arrived, and big money left and you wouldn't want you wouldn't want a Buenos Aires mafia as an angel investor ...

05:13

Yeah.

05:15

But I was trying to find for you because I thought you'd be interesting. There was an Australian VC, a woman who had done some work, I think she had done a sabbatical or worked with at Stanford and had drawn out a visualisation of that Buenos Aires innovation ecosystem. It's in, its sort of in concentric rings. So, what it's done, it sort of shows these large startups that were successful, and how they started a newer one, you know, they started smaller ones, and where and how they handle linkages between who went where, and I've been trying to find it. But I just thought, you know, in your study, in your PhD, it's just this amazing graphical reference of, how, you know, things seed, how nodes, nodes of a network grow. A startup which was called Patagon, which was started by a fellow called Winted Cazarez, who was like the Elon Musk, considerably more boring, and sold for 500 million pesos, or he'd done something extraordinary, which was the talk of the town when I was there. Headlights I had sold out, but it was their version of PayPal. At the time, but if you can see inside this, maybe, you know, Google can find it then if you've got enough clues there, but Patagon seeded other startups and successful IT companies in this ecosystem. So, what I saw in Buenos Aires were two things, the start and the finish. So there was that innovation ecosystem where there was money and money floating around and then the collapse. But then I saw this extraordinary thing, which is

co-ops that just spring out nowhere. And so there was a hotel, this famous old hotel, which 23 years later was still a co-op. I only recently did it we can put the workers took it over. And then and so Naomi Klein was there at the same time and made a documentary about it. Which, which? I don't know, it wasn't very exciting. I had a more exciting time. But this docci, she and her husband put together? I've seen it in Spanish. And I've seen it in English, and it doesn't get much better. But it should be interesting, because it's about these workers that take over factories, which is what happened and what I also saw there was instant black markets that were really sophisticated. So, they have a, you know, almost a whole stadium of people bartering. You could get a sonograph. You could get a seismograph for you know, bricks, or you could get like it was just it was amazing. And like they called it which I don't think any South African or Australian could say with a straight face, but they call it horizontally dark

08:41

Horizontally dark, which was everything went horizontal. There wasn't a hierarchy. It wasn't. It was an exchange that economy that came out. Yes. Yeah. So, and that was under absolute, you know, that was because you couldn't get more than about 300 pesos out of the ATMs. There was line snaking for three blocks for any job going. People were moving into their grandparents' flats and people, I was on a couple of times I was there trying to go through the attics with my friends looking for Spanish or Italian nationality papers of their, of their grandparents. So, to get out there. So, it was it was fascinating to see. Sort of, yeah, an economy falls over. And then what people do.

09:43

Yeah, it's very similar to what happened in South Africa during COVID. Because, you know, we have a very poor like, massively poor population. And what do you store with COVID and the economy collapse to close was exactly that, like another economy at work that, you know, people driven and exchange driven. It's like, what happens when people are supposed to survive?

10:29

Fine. Yeah. So that's sort of part of that story was so unusual. And then I came back, and I was a financial journalist. So, I worked for the Australian Financial Review, had a column I was a property reporter, then the thing about Australian culture and economy and those things is, is there an absolute obsession with property, particularly in Sydney? It was it's the way to get ahead. And it's and it's Yeah, so there's, we have a real property Ponzi, you know, national Ponzi scheme here. We, yes, we've profited over, you know, over valuation.

11:06

Yeah. Today, there was the, I think, an outcry around government's commitment to spending on 250 000 new homes a year because your market is so there aren't enough

11:29

so absolutely a crisis. But also, we have you know, Airbnb, and this investment Ponzi scheme means there's a million houses that don't have anyone in them every night in Australia. No, that's a tragedy.

11:48

for a wealthy country that really stuff that up. So yeah, so anyway, that was sort of heated, but I came back, and I was full of enthusiasm, I thought I'd pitch to the editor of the financial review that I could do the co-ops round, you know, this was a sector of the economy that was so important. And, you know, so many people were a part of this. And it just went down like a lead balloon. That's, that's fine. But at about the same time, another journalist who had been the editor of the International Association of Co-ops, I think, Australia, she came back to Australia. I didn't know her. I met her later on, Melina Morrison, she started up, you know, the Australian Association of Co-ops and Mutual's and really, really has brought this, you know, an amazing ecosystem in itself together, advocacy for it, and changing legislation and helping them be capitalised better. And I've always, I've always been interested in what she's doing and how she does it. And so, I was sort of following her and they were offering she was offering - you had to pay - but this, you know, it all the three parts of my career sort of came together. So was it WWF, I was the media manager. So, I'd been a financial journalist. And then I had one of those roads to Damascus, so set on the bank, where I came from, and I thought, this river is trading insolvent. And I'm going to do something really different. And I'm going to join WWF, which was the best thing I've done. It was really formative, fascinating, like opening Pandora's box, because you had access to the best climate, you know, the best Earth scientists who? well and truly this is in 2004, I think. Okay.

13:59

Yeah, they were showing us exactly what's happening right now. Except the worst prediction 10 years early. So, for that amount of time, I have known what's coming, and then writing about it and was a speechwriter, not just for, you know, my CEO, but also other CEOs. I have also written for Prince Philip once. He was the governor of WWF. And he was fascinated in Antarctica, because that was Australia's section. Yeah, it was my job to write speeches. So yeah, I loved speech writing, and I loved the scientists and the speakers.

14:51

Yeah. I hear what you say about betrayal. I think if I did that for a short part of my career as well. You know, Yeah, nothing nearly as exciting.

15:02

But did you enjoy it?

15:05

I loved it. I loved how easy it was the influence thinking, yeah. Because, you know, the people who were asked to give the features are fresh out of ideas. So, you could really shape, you could, you know, you could determine what it did, how they said it and how wide you know, they would go with it. So, I hear you on the powerful role that that is today. Yeah. And, you know, it's how you get to wield influence.

15:40

And the trust also with the speaker, you know, you've got to, you just got to have this engender this trust and know what the words that you're putting in their mouth is? Well, yeah, I really, I really did enjoy that. That was good. Yeah. But then another thing that's taught me about networks as well, which is just really formative was, I was one of the founding the first five for Earth Hour, turn the lights off around the world, and that, that was fascinating for its network effect. You know, how can five people turn into 1.7 billion, really, that's how many participants within four or five years. And it was, , it was WWF international network, but it was also the media company concentration that we have in Australia, that helped work. So, I'd worked for Fairfax, and I knew them. And there was this WWF in Fairfax, you know, spill over. And because we have such a concentration of media, and messaging, and their partnership in it meant there was, and this was before social media and almost probably the peak of traditional media after Earth Hour. I think it was a precipitous decline, although I saw the writing on the wall several years before, but yeah. And then also, we had Leo Bennett, which is an advertising international advertising network. So that the combination of those three really were the catalyst pre social media for that kind of movement, and there were ecosystems within. And also, the thing behind it was to let the brand go, you know what I mean? We had amazing stories of people who just took it and owned it you know, there's a guy in Tasmania that declared himself to the earth hour ambassador without ever talking to us. He designed merch and had their own parties, and, you know, and people took their own spin on it. My parents were in the Falkland Islands; my dad was the head of agriculture in the Falkland Islands. And so, across those Antarctic islands, and others, they had it. I had to get all the party gear and, and merch and other things on the last flight to Antarctica and I was stuck in traffic

18:15

I was going Yeah, story.

18:24

Yes. Is that systemic, you know, that that network effect that you watch? Rollout.

18:30

But I don't want to interrupt. But I mean, I like what I'm sensing, like, at the apex of ecosystem innovation is a gravitational idea or concept that, that stir people and grab people, you know, in their heart, and that allows for, I mean, that provides the inspiration for multiple parties to come together and be part of something that feels good and great. So, I think Earth Hour was one of those, what I call higher-order concepts. That visionary idea that I think people resonated with and wanted to, and use that as an opportunity to do something, you know, because without that, what do you do? You give them a beautiful context to connect with something people care about?

19:32

Well, the African, you know, some countries in I mean, some African projects were just extraordinary, I mean, they started they protected whole forests and, you know, that beautiful, that green belt, you know, part of that Green Belt Movement. And you know, there were people that really took it on to be the platform for some wonderful work, which I think is the best legacy See? I mean, you know, in the West Yeah, well,

20:05

yeah. Well, you know, Sydney is fairly superficial. It's like, like a party girl. And that's what we did in Sydney. Yeah. It's really what kicked, kicked it off. But now there are much more meaningful and interesting and long-term environmental parties. Yeah, so as far as the sort of the other reason for joining Regen Farmers Mutual and I think these do resonate with other reasons, people join ecosystem. So, you know, innovation ecosystems is because there's market failure, because there's a greater and so my other reason is that where I'm from, which is the mid, which is the Murray River, inland delta is, in a very, is in a rock and a hard place, politically. We had a reform to water which really, you know, if you have a look at a neoliberal system, this couldn't be it couldn't be more of an indication of the psychopathic nature of it, really. You can imagine a food bowl the size of France, and that's the Murray Darling Basin in Australia. So, over 50% of its food, where we are is his there are two main systems so Murray and Darling and the Darling was pretty much killed off by these private inland lakes that the cotton farmers were able to construct with no regulation it was just it's just a wild west and political protection from it. And so, when that's not running in the heartland, the Murray system has to feed Adelaide and Adelaide like any like any entity, you know, any through history,

somebody at downstream is you know, very protective and political about what you know about getting all the water that they can. So, we you know, we sit with the other it's not a rock and a hard place it's out it's couple of rocks, but it also they also set up a water trading system which was the Wild West. So absolutely, you know, bloody casino and it was like kicking open the door to the world's disaster capitalists. Back to Naomi Klein ... she seemed she nailed it here. Here were high-street high-speed Wall Street traders and water barons and the government just compared just kicked it open. So as much pain as you can inflict on your food growers by that kind of speculation. There's actually a good book that's worth looking at, as well if you know if you're interested, but it's called Sold Down the River. And it's Yeah, yeah, yeah, that we're that's us, we're ground zero for that. So, this, though, turns this place into a bit of a crucible because you've seen what happens in a failed market, the massive socio-economic effects. We've lost 50% of our population in in in 16 years. And I have in Australia that have a wealth decile rating, and five was wealthy and that's what we were for many years because we're an irrigation system and we had co-ops, large rice co-ops and dairy co-ops, food manufacturing. We had our own ecosystems here. And yeah, with this was this is is dismantled all of that and we lost that population, and we went to two, five to two, which would put a red flag on it. And we lost so many people and many generations. And the thing is that the thing about drought, like anywhere but also in Australia it's natural selection. Only the best farmers and the most innovative and then one's risk takers and that you know stick together are the ones who survived. Not many people could survive this one you know, a drought with water speculators and it really turned the government very toxic. Australia's still an open-air penal colony really, you know, when it comes to water. We face absolute contempt from them. Yeah, so part of the reason for the Regen Farmers Mutual was, I could see, because of my work with WWF, and being a financial journalist -these are the three parts of my career - that this carbon and biodiversity markets are going to absolutely affect farmers here and having been ground zero for a failed Water Resources market in water, then, you know, I said to Wardy, this here, if you muck around with carbon, it's going to have some really perverse effects. So, we're not going to survive biodiversity financialisation, unless we stick together, and, and really stick together. So, it's going to be interesting. I'm fascinated with all the accountants that want to introduce us to biodiversity.

26:13

No, not really, how they got around it, how they're going to introduce it. Yeah, so I just thank goodness, for Wardy and Rohan for having the courage and the insight. You know, and it is courage. I mean, other entrepreneurs think about their exit, you know, think about how they

get five times their revenue and exit. But that doesn't happen in co-ops. And trying to fund them is difficult, know how you capitalise them. And they've really taken on an ambitious role, but I think their timing, the timing is right. And yeah, I think, Wardy is compelling, and so is Rohan. But again, we do face this, you know, it's no Silicon Valley here. I think in Silicon Valley, they say Australian companies are scrappy, meaning they are undercapitalised and underfunded and have to scrap, for whatever they get. And so many died in that investment valley of death, really, they just couldn't get that extra run up. So, in this place, which has so many monopolies, we have this very, there's just not, there's very little competition, or competitive friction. So, yeah, but the thing about what we're doing is that these, these massive global movements for carbon accounting, and biodiversity accounting, are all going to filter through the supply chains and put pressure on everyone to do something. And so, what we have to make sure is, with farmers is, you know, as the primary producers, and at the bottom of it, is that we're not taking on the risk on five fronts. So, the five fronts will be selling five things we know. So that's data and our practices, biodiversity, and carbon, plus the food and fibre that people might need from us. So, there are middlemen always? But how much are they going to put back on us If we don't collectivise for selling it, both selling and buying power?

28:58

So, I'm curious to know, your role in, in the coming together and the development of RFM? What has been your contribution? And what is your role continue to be?

29:11

Yes, so I was keen to be part of the co-design team. It was a really generous and interesting and transparent co-design, really, you know, sort of, I think at peak there was 70, and then it got down and, you know, like any good party, you just have a people who stay a bit too long. Because I was enjoying the company, and I really, and I just know, I just felt a real loyalty to see how far we could go with this. And I had a bit of time, you know, we have a farm here and COVID happened and my business partner of quite a few years it was with had retired. And I just it was one of those I think during COVID people had some time and lend why action on what they really you know we'd like to be doing and where things going and things like that. So I, I was able to spend a bit of time on doing that and got a scholarship to do the Business Council funded by the business by the coop to do an Australian Company Directors course that was oriented towards co-ops, coop governance. And it's an excellent course, really interesting. And so that really piqued my interest. And then we also had a good group. And it's interesting that they're all still close this, you know, close to Regen Farmers Mutual, if they're not in the

steering committee, then they're certainly always around. We set out the Constitution for the members council. So, we did a bit of research. And we went over to we've heard from them West Australians, the CBH, that has a very, very successful long-term grain handling cooperative and farmers, multibillion dollar operation now. And we've sort of got their members Council constitution and reorientate it. It's pretty ambitious for, you know, where we are very open-minded, but we really do want to have a member's council that feeds the, you know, it's feeds into the board when the board is set up. But it also is also a bit of a governance education. And we want to set up a fund. So, you know, a small part of the levy for members is that we'll get that company directors course type of education for Board Governance, because that's the key in nonprofits and co-ops and all those others that that formal education on governance is, you know, is what we need for sustainability. So yeah, so then the next part is that I decided that I just apply it here and really oriented what I'm doing, I joined a not-for-profit here that's quite well known to be a community advocate. And they're in that cross section between the environment and agriculture. And they're really, they are off their place. So they are that crucible that I was telling you about that, you know, they we know what it's like to advocate for your survival. And this is a beautiful place, it's a biodiversity hotspot. We have 3000-year-old Barapa Barapa villages here. And as we work really closely with Yatta, Yatta and Barapa people and an archaeologist, actually a bio anthropologist who, and some others, who've really worked out that this is extraordinary 12,000-year-old archaeology. And what it's showing us is that they are permanent - this what is a proxy for exceptional environmental value is habitat is, you know, is populations. So, these wetlands were supporting up to 450 people permanently for up to 3 000 years, which means they had a pumping, you know, food chain and high biodiversity. And they also, there's husbandry going on, and aquaculture and all these other things. Now, in Africa, that wouldn't be surprising in any way. But in Australian culture, the only way that we could steal the land and keep it was to say that they were nomadic, and they didn't care. They don't belong anywhere. And still, to this day, is still to this day debate about whether these you know, there was any permanent habitation, when we're sitting on it, it's right there, you can, you can say a man, you can actually I've done this with my friends, there are beads, there's cooking lumps of clay, that perfectly fit into my shape of my hand. And they're just sitting there. So, women, this is women from, you know, hundreds of years ago, and it's the same shape of my hand is, you know, with others, you can do it. And we know that they are carbon rich and Horehound is a weed that grows exactly over the mount. So, we've found all these things in our wetlands that are pointing to, you know, exceptional environmental value and cultural value. And we're the keepers of this. Just

yesterday, we learned that the government, that penal system, isn't going to give water to the swamp, the one that I was telling you about. They have decided that we're getting too big for our boots and we're not going to get the water for the first time in eight years. Because they can. My motto is getting bigger friends. And that's what we're doing in Regen Farmers Mutual, is getting bigger friends. If we need to, if we need to deal with the corporate devil via the corporate devil who's got it who's got a stake in their reputation of a carbon plantation that's actually viable, and all biodiversity project, then they might come to our defence when the government says, Oh, we're not giving you any water, or when the water traders come in, or when they set up a 30 Giga litre almond farm on the South Australian Border at five litres a nut. Isn't that? Crazy? It is crazy. Anyway, I do feel like chewed your ear off.

35:49

It's very valuable, you know, it's like great to get this rich context of what this is all about. Because it's really the context that creates it. That's the start and continues to feed it. And then you know, nurture. So great to have this context. What I'm curious to know is that it seems like what Regen Farmers Mutual has done is that it's drawn to I mean, I think Wardy and Rowan have been critical to this, is that it's grown an interesting collection of people to a diversity of skill and influence to make it happen, and I'm, I'm keen to hear your view on that. Is that correct? And, and are there really unique people, because I feel like they people come in with a new skill. They play a role, a particular role at a particular stage. They've made it disappear again and come back later, but I'm feeling like this is what happening. Is that true?

36:59

Yeah. Yeah, I'd say so. So, there's a really interesting, his Basque actually, I've got an affection for Basque because we kind of feel our area is Basque territory. We feel a bit separatist. I don't feel like we could like, like Mondragon, maybe we could set up a co-op of co-ops. We drove about that. Let the bastards feed themselves. Anyway, he, his name is Christopher Bur and he's fascinating for being a pioneer. You might have spoken to him. I really admire and tell him that I'm a fan. He is so interesting. He's you know, ex McKinsey. So, he's got that analytical mind, you know, he understands that world. But then he has really been someone who's been able to get through this Australian, you know, absolute labyrinth. It was never meant to be user friendly registering for Australian carbon credits and having carbon projects. So, he's battled through it through, you know, persistence and intelligence, really. And so, but he really, you know, came on board, and he certainly helped and guided that as much as well. And then he's just, again, I think generosity is the through line in this is just generous in time, generous with the experience and transparent. So, he's great. Liz Evans, is an investor and she's a vet. And she's part of

climates for, you know, vets for climate action. She came, she invited herself here, which is just the best thing for Easter. And it's just, you know, really sort of accidentally invited a village. I don't know how it happened. But you assume you know, there's two French's and a Brazilian and, and my best mate who's divorced with four ratbag kids. And anyway, it all just descended. Thank goodness,

39:11

Liz turned up and she was, you know, instantly, handy, and welcome and, you know, part of the family. So, yeah, that's sort of the type of thing but highly intelligent. And really, again, just one of those people who can see, see what's next. She's quite involved in permaculture and has a farm at Orion that she started those things. But it's just that, you know, that's those people who think that way. And I think, you know, the through line is that we're all systems thinkers of some kind, right? And I hadn't had really quite an interesting insight which I'll share with you. That we one of my projects was done with WWF and Regen Farmers Mutual it was called the River Country Biolink. and I can send you a link to it. What it was getting landholders and Barapa and archaeologists and some government people out in Rm region, some wetland experts, other ecologists to come in and co-design a biolink that extended from one famous forest, so National Park to a state park, across the farm. And it's quite a famous farm because the McDonald's have been here for six generations. McKenny Scott's asked the Barapa you know, where's the best spot? And it is absolutely beautiful. Wardy, I think posted a photo posted a video of this beautiful day that we had on a river?

40:50

Did you do it fairly recently? I saw it on Wardy's feed,

40:58

So, we had one of those days doing that. But one of the things, and I've done this once before, but a really quick way to establish a fairly instant rapport with a group of people is to ask them, well actually was a bit manipulative. I knew they wouldn't, I asked them to write it. I knew they wouldn't. And they'd have to wing it, which meant it would be more honest at the time. So yeah, I knew it would happen. But I asked them, What's the world going to look like in 25 years? Are we going to make it? Is it a utopia or dystopia? Or where are we? And what is it about your background in your experience and others that makes you think this way? And so we really had some thoughtful and interesting answers, even though they were off the top of their head, and we sort of dug into it. And it was it was great to hear it. But I thought later about, and it actually coincided with Allan Savory and George Monbiot famous debate. And it was it was interesting, and that influenced my thinking. But really my thinking on the through

line ones that every one of those people at this table, we're saying, we're essentially saying, it's going to be all right, if somehow the holistic or the systems thinkers can influence the reductive, linear, mechanistic, urban thinkers because they're killing us.

42:49

And, and that was interesting that that's really what they said that we're absolutely staffed unless that those thinkers and that thinking can influence the others. And, you know, well, an example of that in Australia at the moment, is this, this vegan ideology, which is very, which is insidious? Well, I think this is a farmer's point of view. So, take it in the spirit, it's Yeah. They in Western Australia, they have perfected, because of their climate and lack of people over there and all those are things that affected live sheep trade, and they have more protocols and more regulations than anyone else in the world, to get sheep you know, to Asia, and to other places that need it, they can't have abattoirs there to finish them off, because they just don't get them to that, you know, weight. So, they can do abs and then send it over to this side of the, of the country. So, they've perfected it. And they also cropping and those things. Now, when we had the most devastating one in 400-year droughts just before COVID in Australia on the side of the country, 2 million replacement Shake came from Western Australia to really save lives and farms and livelihoods and the system really. The people hadn't had an income or they hadn't had anything for three years or my, some of them almost four, and now they've decided, this government has decided that they will have a total ban on live sheep out of Western Australia, and so they haven't put it in place, they've just flagged it, but the South Australian or the West Australians, business people and they have rapidly got out of it with the price of sheep has dropped by 55% and you can get one for \$2 a sheep here, at the moment. It's a crisis. But once they're out, they're out. They're not going back. And there's no reserves. There's no, there's nothing coming from Western Australia in the next drought. And this is the cascading effect that those activists and others will see this as a real personal win, but there is no one adequately telling them that this is a whole of food system effect.

43:33

No, no, no. It just means we have to talk more than once?

She asks about me.... Removed to cut length of transcript. She introduces other people in her context.

59:03

I think Margaret Kelly, I think is her name, but she was actually one of the people that really kicked off the B Corp movement. Which is, which is a good legacy to have, isn't it? It's just part of the democracy collective. Which I'm always fascinated in because the democracy

collective and the Centre for Local prosperity in the UK. These are all in parallel to joining Regen Farmers Mutual really studying community wealth building and place-based capital. Now Ethical Fields of which Regen Farmers Mutual is a spinoff from, is really heavily into community wealth building and bringing it back to where we are as well. We're part of a programme 20 places; Western Murray is part of the programme in 20 places. And that's Megan Burkett. It's worth talking to. I mean, she's, she's a real systems thinker. But she had a connection to her because her road to Damascus was on that river, I told you they nearly killed, the Darling River, when she went to citizens assemblies' meetings in which people gave them, you know, tell stories about what happens when you kill a river. So that's, the Barker people. There is this, if you ever want your heart to stop in, there is this moment, we have this thing called Q&A in Australia, which is on the ABC and it's a forum site. You know, they have a politician, or they have a public figure in those others, and then they have a live audience asking questions. So, you know, it's a function of democracy, I guess. Yes. And there is this guy who stands up and he calls out, I'll try and find him to recognize, he's a backhand G Man and that's put in the reverse called the backer or the or we call it the dumb and he caught he always sort of points the bone like the kid Archer, Ben, he looks he's got traditional headgear and others on and he gives the most raw and heartfelt entreaty about his River, and about what they've done to it. And so that was Megan, Megan was working for the Environment Department for New South Wales, I think when she was a part of it. And that was her epiphany, she left and started, you know, rowing in exactly the opposite direction. And thank goodness because now she is starting a fascinating movement.

1:01:51

So interesting that I see two kinds of people, not that they're separate, but just that they have a lot of the defining moments in terms of being in you know, a corporate space, or being in a space where you have a Damascus moment, and, and then becoming forces for change. But then also they're also influence the broader environment. But then there's some of those that also stepped into an organization or an initiative like RFM and bring very unique skills into the skill set around RFM. So, what I'm trying to see and yeah, so what I'm seeing a little bit is that you know, Wardy is very fluid but very sharp and any kind of fluency he gathers around him all these amazing people. What he gathers around RFM all these amazing people who step in to play very particular roles quite generously. And in this way, you know, has been able to take RFM into Regen Digital and Traprock and the Regen Trading, you know, all of these forms are starting to emerge now. But what, what I'm trying to get a grip on is whether there is like a

meta team that is a team and not a team that kind of comes in moves on, you know, it's quite fluid. And I'm trying to see whether there is, is this kind of structure that is that is at work here?

1:03:55

Yeah, well, I think so because we're not paid. So yeah, you know, so there is that there's, you know, you You're obviously picking your patterns. And, you know, I worked out a long time. You know, as a financial journalist, and being in the big city, which I never belonged in, I lived on the 27th floor. But my family's been going through in Australia for 215 years. So, we are farmers, and its land that I've you know, it's something that I've always been interested in. But I worked out, you know, that this just the true enjoyment is your cohort, and that was the name of the company that I started cohorts with. It really it really is the people on the journey and not the destination but the people on the journey that you get the most out of and I would say that yeah, every one of those people on the steering committee or a regularly turns up that is just intelligent and generous and, you know, kind and understands the great, you know, the bigger the bigger picture and have different, you know, they will have sort of different experiences and, and you Yeah, it's um, I also Yeah, I think we all just want it to win. Because yeah, I think that's another element is we want this to win, because the forces against winning arranged around it, I guess there is massive brokers that are, you know, government, you know, we I call this place in New South Columbia, because there is their South American levels of corruption. Yeah, it's, I mean, you can certainly see it in the water, but you can see it in the forestry, and you can see it in just jobs for mates. And there's actually a good Australian, good Australian book on that called ... It's like, down, sold down the river. Yeah. I have Australian Corp, you know, corporate culture and political culture, but it's about mates. jobs to the mate. And there is, you know, there is really significant mates.

1:08:52

Great to speak to you and really good to hear about your you know, your experiences, too. You know, it's really interesting that you've got to this this point to,

Yeah, I'd love to continue the conversation. And I'd like to stay in touch if that's okay with you. Yeah, I'd love to I'd love to. Okay. Well, thank you mentioned Liz Evans and Megan Burkett

1:09:18

Yes, yeah. Megan Burkett from ethical fields.

1:09:21

Yes. Yes. She you think they're good people to interview.

1:09:26

Megan will really understand this connection. Certainly, between America and the UK and these community wealth building initiatives and programmes and what she's trying to do here, as well as really foster these innovation ecosystems within small you know, rural towns and country or country. Which is the only thing that's really going to save us I think, yeah, you know, not to be too dire but COVID showed us that we are an island, the Chinese, the Chinese can cut off our internet, there's no doubt they can cut off our supply, supply lines and our and our internet. And so, Australia really does need to understand that we need to be, you know, self-sufficient and aware and resilient. And this place-based capital concept, you know, we desperately needed if we're going to have any manufacturing or value adding come back to this place and make us you know, more resilient for the shocks. She will really understand, and I think she'd be a really good study.

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MANAGERIAL SUMMARY: FROM DISRUPTIVE INNOVATION TO META-INNOVATION: RECONCEPTUALISING AND DIRECTING INNOVATION AT SCALE

This dissertation, through three papers, provides both significant theoretical advancement and robust practical frameworks for leaders navigating increasingly complex innovation landscapes. By tracing disruptive innovation's evolution and articulating meta-innovation as an emerging construct, it equips managers with sophisticated understanding and tools for orchestrating transformative change across organisational boundaries.

Strategic Frameworks for Innovation Leaders

The expanded understanding of disruptive innovation developed in Paper 1 enables leaders to recognise and navigate four expansionary disruptive innovation characteristics shaping contemporary innovation. First, value creation dynamics have moved beyond simple performance-price trade-offs to orchestrate collective value propositions that integrate economic, social, and environmental benefits. Second, market evolution patterns show how disruptive innovation increasingly transforms entire market structures rather than merely entering existing segments. Third, innovation alignment mechanisms have evolved from firm-centric control to developing orchestration capabilities that coordinate innovation across organisational boundaries. Fourth, contextual impact factors demonstrate how different contexts – from digital environments to sustainability transitions – require tailored approaches to disruptive innovation.

The configurational framework in Paper 2 provides decision-makers with a diagnostic tool for identifying which pattern of disruptive innovation – enterprise-led, innovation ecosystem, or socio-technical system – best suits their specific challenge or opportunity context. For each configuration, it offers clear guidance on required orchestration capabilities, governance models, and value creation approaches. This framework enables leaders to develop configuration-specific strategies rather than applying one-size-fits-all disruptive innovation approaches.

The ecosystem work model in Paper 3 equips ecosystem builders with a comprehensive roadmap of specific practices and processes for directing disruptive innovation ecosystem emergence, development, and integration. The seven micro-practices – framing, co-creator recruitment, evidencing, co-design, value exchange design, configuring, and instituting – which underpin six directing processes – mobilising, architecting, manifesting, scaling, integrating, and embedding – provide a framework for ecosystem leaders to implement across

different developmental stages. The model's temporal insights help these leaders anticipate and navigate the distinctive non-linear development trajectory of ecosystem-based innovation.

A New Construct for Multi-Level Change

From this investigation emerges a new theoretical construct that we term “meta-innovation” – a distinctive approach to innovation that fundamentally reconfigures innovation processes themselves across organisational, ecosystem, domain, and socio-technical boundaries simultaneously. Unlike traditional approaches that focus on singular domains, this approach works across technological, social, environmental, and economic dimensions to generate transformative impact across multiple systems concurrently. This conceptual emergence shifts our understanding from competitive disruptive innovation to collaborative transformation, from static structures to dynamic processes, and from innovation as outcome to innovation as transformative force.

The accompanying Meta-Innovation Praxis presented in Chapter 7 offers practitioners a structured approach for diagnosing complex and interconnected innovation landscapes, designing ecosystem architectures, implementing integrated innovation visions, and orchestrating system-wide scaling pathways. Organised into four domains – vision and opportunity space, ecosystem architecture, implementation strategy, and scaling and integration – with a central hub of cross-domain integrative elements, this praxis guides practitioners through the complex process of reconceptualising innovation processes across organisational boundaries.

This practical framework enables leaders to articulate transformative visions that mobilise collective action across diverse stakeholders, design governance structures that balance coordination with distributed agency, develop value exchange mechanisms that enable novel forms of value creation and sharing, create learning systems that facilitate adaptation and improvement throughout implementation, and orchestrate multi-level transformation that simultaneously addresses micro-, meso-, and macro-system changes.

Implications for Different Practitioner Groups

For organisational leaders and entrepreneurs, the dissertation provides both conceptual clarity and practical guidance for navigating increasingly complex innovation landscapes. The temporal insights from Paper 3 highlight the strategic importance of patient foundation-building in early stages of ecosystem development, enabling leaders to make more informed investments in relationship-building and collaborative infrastructure before pursuing rapid scaling.

For policymakers, the research demonstrates how effective innovation policy must evolve beyond traditional R&D funding and technology push models. By understanding the multi-level dynamics of meta-innovation, policymakers can design more sophisticated intervention mixes that simultaneously protect emerging innovations while creating openings for system-level transformation. The configurational framework helps identify which policy instruments are most appropriate for different innovation patterns.

For ecosystem orchestrators, the dissertation offers detailed insights into the specialised practices and processes required to coordinate action across diverse stakeholders without relying on hierarchical control. The ecosystem work model provides practical guidance for establishing directional momentum, designing collaborative value creation mechanisms, and institutionalising ecosystem-wide governance arrangements.

For impact investors and funders, the research challenges conventional investment logics by revealing the distinctive non-linear development trajectory of meta-innovation. It points to the need for new metrics for evaluating potential and progress that account for multi-dimensional value creation and system-level transformation rather than focusing solely on firm-level outcomes.

By providing both theoretical depth and practical frameworks, this dissertation equips practitioners with sophisticated tools for harnessing innovation's transformative potential in addressing our most complex societal challenges and opportunities.

RÉSUMÉ MANAGÉRIAL : DE L'INNOVATION DE RUPTURE À LA MÉTA-INNOVATION : RECONCEPTUALISER ET ORIENTER L'INNOVATION À GRANDE ÉCHELLE

Cette thèse, composée de trois articles, offre à la fois des avancées théoriques significatives et des cadres pratiques solides pour les dirigeants confrontés à des environnements d'innovation de plus en plus complexes. En retraçant l'évolution de l'innovation de rupture et en présentant la méta-innovation comme une construction émergente, elle fournit aux managers une compréhension et des outils sophistiqués pour orchestrer des changements transformateurs au-delà des frontières organisationnelles.

Cadres stratégiques pour les leaders de l'innovation

La compréhension approfondie de l'innovation de rupture développée dans le document 1 permet aux leaders d'identifier et d'exploiter quatre caractéristiques expansionnistes de l'innovation de rupture qui façonnent l'innovation contemporaine. Premièrement, la dynamique de création de valeur a dépassé les simples compromis entre performance et prix pour orchestrer des propositions de valeur collectives intégrant des avantages économiques, sociaux et environnementaux. Deuxièmement, les schémas d'évolution du marché montrent comment l'innovation de rupture transforme progressivement des structures de marché entières plutôt que de simplement pénétrer des segments existants. Troisièmement, les mécanismes d'alignement de l'innovation ont évolué, passant d'un contrôle centré sur l'entreprise au développement de capacités d'orchestration qui coordonnent l'innovation au-delà des frontières organisationnelles. Quatrièmement, les facteurs d'impact contextuels montrent comment différents contextes – des environnements numériques aux transitions durables – nécessitent des approches sur mesure de l'innovation de rupture.

Le cadre configurationnel présenté dans l'article 2 fournit aux décideurs un outil de diagnostic pour identifier le modèle d'innovation de rupture le mieux adapté à leur contexte de défi ou d'opportunité spécifique – piloté par l'entreprise, écosystème d'innovation ou système sociotechnique. Pour chaque configuration, il propose des orientations claires sur les capacités d'orchestration, les modèles de gouvernance et les approches de création de valeur nécessaires. Ce cadre permet aux dirigeants d'élaborer des stratégies spécifiques à chaque configuration plutôt que d'appliquer des approches d'innovation de rupture standardisées.

Le modèle de travail écosystémique présenté dans l'article 3 fournit aux bâtisseurs d'écosystèmes une feuille de route complète de pratiques et de processus spécifiques pour piloter l'émergence, le développement et l'intégration d'un écosystème d'innovation de rupture. Les sept micro-pratiques – cadrage, recrutement de co-créateurs, preuve, co-

conception, conception de l'échange de valeur, configuration et mise en place – qui sous-tendent six processus directeurs – mobilisation, architecture, manifestation, mise à l'échelle, intégration et incorporation – fournissent un cadre que les dirigeants d'écosystèmes peuvent mettre en œuvre à différentes étapes de développement. Les informations temporelles du modèle aident ces dirigeants à anticiper et à naviguer dans la trajectoire de développement non linéaire distinctive de l'innovation basée sur l'écosystème.

Une nouvelle conceptualisation pour un changement multi-niveaux

Cette étude fait émerger une nouvelle conceptualisation théorique que nous appelons « méta-innovation » – une approche singulière de l'innovation qui reconfigure fondamentalement les processus d'innovation eux-mêmes, au-delà des frontières organisationnelles, écosystémiques, sectorielles et sociotechniques. Contrairement aux approches traditionnelles qui se concentrent sur des domaines singuliers, cette approche s'étend aux dimensions technologiques, sociales, environnementales et économiques afin de générer un impact transformateur sur de multiples systèmes simultanément. Cette émergence conceptuelle fait évoluer notre compréhension de l'innovation de rupture compétitive vers la transformation collaborative, des structures statiques vers des processus dynamiques, et de l'innovation comme résultat vers l'innovation comme force transformatrice.

La pratique de la méta-innovation présentée au chapitre 7 offre aux praticiens une approche structurée pour diagnostiquer des environnements d'innovation complexes et interconnectés, concevoir des architectures écosystémiques, mettre en œuvre des visions d'innovation intégrées et orchestrer des trajectoires de mise à l'échelle systémique. Organisée en quatre domaines – Vision et espace d'opportunité, Architecture de l'écosystème, Stratégie de mise en œuvre et Mise à l'échelle et intégration – avec un pôle central d'éléments intégratifs inter-domaines, cette pratique guide les praticiens à travers le processus complexe de reconceptualisation des processus d'innovation au-delà des frontières organisationnelles.

Ce cadre pratique permet aux dirigeants d'articuler des visions transformatrices qui mobilisent l'action collective entre diverses parties prenantes, de concevoir des structures de gouvernance qui équilibrent la coordination avec l'agence distribuée, de développer des mécanismes d'échange de valeur qui permettent de nouvelles formes de création et de partage de valeur, de créer des systèmes d'apprentissage qui facilitent l'adaptation et l'amélioration tout au long de la mise en œuvre, et d'orchestrer une transformation à plusieurs niveaux qui aborde simultanément les changements micro, méso et macro-systèmes.

Implications pour différents groupes de praticiens

Pour les dirigeants d'organisations et les entrepreneurs, cette thèse apporte à la fois clarté conceptuelle et conseils pratiques pour naviguer dans des environnements d'innovation de plus en plus complexes. Les perspectives temporelles de l'article 3 soulignent l'importance stratégique d'une construction patiente des fondations dès les premières étapes du développement de l'écosystème, permettant ainsi aux dirigeants d'investir plus judicieusement dans le développement des relations et des infrastructures collaboratives avant de se lancer dans une expansion rapide.

Pour les décideurs politiques, la recherche démontre comment une politique d'innovation efficace doit évoluer au-delà des modèles traditionnels de financement de la R&D et de poussée technologique. En comprenant la dynamique multi-niveaux de la méta-innovation, les décideurs politiques peuvent concevoir des combinaisons d'interventions plus sophistiquées qui protègent simultanément les innovations émergentes tout en ouvrant la voie à une transformation systémique. Le cadre configurationnel permet d'identifier les instruments politiques les plus adaptés aux différents modèles d'innovation.

Pour les orchestrateurs d'écosystèmes, la thèse offre une analyse détaillée des pratiques et processus spécialisés nécessaires à la coordination des actions entre les différentes parties prenantes sans s'appuyer sur un contrôle hiérarchique. Le modèle de travail écosystémique fournit des conseils pratiques pour établir une dynamique directionnelle, concevoir des mécanismes collaboratifs de création de valeur et institutionnaliser des dispositifs de gouvernance à l'échelle de l'écosystème.

Pour les investisseurs d'impact et les bailleurs de fonds, la recherche remet en question les logiques d'investissement conventionnelles en révélant la trajectoire de développement non linéaire caractéristique de la méta-innovation. Elle souligne la nécessité de nouvelles mesures pour évaluer le potentiel et les progrès, qui prennent en compte la création de valeur multidimensionnelle et la transformation systémique, plutôt que de se concentrer uniquement sur les résultats à l'échelle de l'entreprise.

En fournissant à la fois une profondeur théorique et des cadres pratiques, cette thèse fournit aux praticiens des outils sophistiqués pour exploiter le potentiel transformateur de l'innovation afin de relever nos défis et opportunités sociétaux les plus complexes.

Feedback on final paper included as quotations (Farmer, Members Council, Leader of Landscape Impact Programme)

Subject: RFM System-Level Impacts - Feedback on Your PhD Research

30/05/2025

Dear Shereen,

Thank you for sharing your research framework with me. Your ecosystem work model and the identification of system-level impacts resonates strongly with what we've experienced building Regen Farmers Mutual. I'm still processing, and keenly aware that you want to birth this baby by Saturday :)

How your theoretical framework maps onto our practical journey is an interesting exploration.

Validation of Your Framework

Your observation that RFM has documented system-level impacts feels right, and I believe this represents one of Wardy, Rohan and Luke's most significant achievements - though perhaps one we haven't fully capitalised on for momentum and success yet. Your three-level impact analysis captures what we're seeing:

Macro (Landscape) Level Impacts

The new \$10 million NSW Low-Carbon Landscapes grant policy is, I believe, a direct reflection of RFM's and the group I'm also working with, Western Murray Land Improvement Group's, macro-level impact. This policy shift didn't happen in a vacuum - I believe it emerged from the groundwork we laid in demonstrating farmer-led approaches to natural capital development and the collective power of landscape-scale interventions. This validates your framework's prediction that ecosystem work can influence policy and redirect capital flows.

Micro (Niche) Level Impacts

Your identification of "farmer empowerment and practice innovation" as micro-level impacts is beautifully illustrated by feedback from one of our pilot farmers in a Landscape Impact Programme. They described the experience as a "gamechanger," saying they now feel empowered with decision tools, language, and what they called "a mindshift to reorientate their farm and farm income for a natural integration of their values and sustainable income from its natural capital."

These farmer's transformation embodies what you've identified - they're not just adopting new practices, they're fundamentally reframing their relationship with their land and their business model.

Meso (Regime) Level Impacts

I hope we will see market restructuring through our work in environmental markets and supply chain agreements. The development of new funding pathways, the creation of Landscape Impact Programmes that aggregate farmer power, and our influence on how carbon and biodiversity markets engage with farmers all represent the institutional innovation you've described and are works in progress.

In late August, we're hosting a two-day series on either side of the NSW/ Victoria border called Discovering Your High Value Natural Capital Assets and the Five Pools of Opportunity. These are: 1. Government - grants, extension and markets, 2. Philanthropy 3. Supply chains, 4. Local economic networks, and 5. Hybrid and Emerging). The Victorian event will have a drought lens and be somewhat of a crucible as the south-eastern part of the state is in a crippling drought. These events will be a milestone for RFM's journey so far and creation of value into the future.

The question to be asked and answered at this point is: Do a critical mass of farmers see value in these approaches and the support created for them?

Insights on Your Micro-Practices

Your seven micro-practices framework maps remarkably well to our journey:

Framing: We've consistently positioned regenerative agriculture as both environmentally necessary and economically viable - "good for the farm, good for the farmer."

Co-creator Recruitment: Our member-owned mutual structure is essentially institutionalised co-creator recruitment, with farmers as owners, not just clients.

Evidencing: Our digital twin platform, carbon calculators, and success stories from programmes like STAR and other programmes in the works provide continuous evidencing.

Co-design: This is embedded in everything from our member council structure to how Landscape Impact Programmes interventions with farmers.

Value Exchange Design: RFM's mutual model and the way we've structured access to funding, markets, and knowledge represents sophisticated value exchange design.

Configuring: The platform architecture, GREG AI, and the integration of multiple tools and services shows ongoing configuring work.

Instituting: The formal establishment of RFM as a mutual, our governance structures, and our growing influence on policy represents the instituting practice.

Strategic Reflection

Your research highlights something crucial: we need to be more intentional about documenting and leveraging these system-level impacts for greater momentum and success.

We've been so focused on building and delivering that we may have underestimated the power of our own story.

The evolution in sophistication you describe across developmental stages is evident in our journey from early experiments to our current position where a 3 to 4 person team is influencing policy and redirecting capital flows. Your framework suggests we're moving from ecosystem co-development toward ecosystem readiness - a valuable insight for strategic planning.

Questions for Further Exploration

1. How might we better document and communicate our system-level impacts to accelerate momentum?
2. What indicators would you suggest for measuring the transition between your three developmental stages?
3. How do you see the relationship between our farmer-owned mutual structure and the sustainability of ecosystem orchestration?

Conclusion

Your research provides a powerful framework for understanding not just what we've built, but how we've built it and where we might go next. The system-level impacts you've identified aren't just outcomes - they're sources of leverage for the next phase of our work.

I'd welcome the opportunity to discuss this further and explore how your research might inform our strategic development. The intersection between your theoretical framework and our practical experience could generate insights valuable for both academic understanding and ecosystem development practice.

Thank you for the opportunity to reflect on RFM's work through your research. It's been illuminating to see how the co-founders' intuitive approach aligns with your systematic framework. (and I still need to read it a couple more times!).

Kind Regards,

Jacqueline