



NUFFIELD
NEW ZEALAND
FARMING SCHOLARSHIPS

Global vision,
leadership and
innovation



Dead-ends or Transformation

Redesigning NZ farming to thrive through change

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New Zealand Nuffield Farming Scholars
Primary Sector Insights Report 2021

New Zealand Nuffield Farming Scholars

Primary Sector Insights Report 2021

The environmental, social and economic contexts in which we farm and grow are changing rapidly. The pressure many primary sector New Zealanders feel is the collision of 'business as usual' with accelerating forces of change. Under these new conditions, protecting long-held structures and models becomes untenable. To thrive in a challenging new world, we must choose to self-disrupt and transform fundamental parts of our sector: however difficult that process may be.

This is the core insight of the Nuffield 2021 'World Tour of New Zealand' – a redesigned Nuffield Farming Scholarship experience that saw 10 emerging primary sector leaders travel the length of the country to gather insights into the challenges and opportunities ahead.

This report is a culmination of those insights, as viewed through five pillars fundamental to a thriving NZ food and fibre sector:

Incentives - How the end of the 'farming for capital gain' model is forcing us to redefine value, and restructure our organisations to capture it.

Innovation - Mapping innovation potential across the sector to find what separates the status quo from the game-changers.

People - How leading organisations put people at the centre of what they do.

Silos - How systemic silos across leadership, research and data management are restricting the potential of the sector.

Leadership - Why transformation must be led by values and purpose-driven leaders.

This report builds on the 2020 Nuffield Scholars Insights and represents the start of our individual study in chosen areas. We encourage those who wish to support our research to get in touch – our contact details are included throughout.

Finally, our sincere thanks to the many hundreds of primary sector New Zealanders who shared time and insights with us along the way. While there is a need for great transformation ahead, your pride, passion and talent are a reminder that we can, and will get there.

Ngā mihi nui

The 2020 and 2021 New Zealand Nuffield Farming Scholars

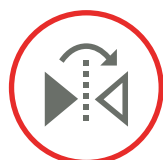
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Modelling transformation

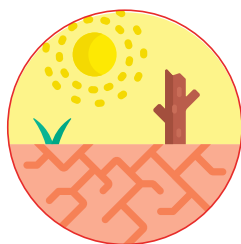
The scholars' guides to change

To provide a framework for testing and evaluating insights, scholars used two existing models to explain transformation in organisations. These are referred to throughout the report.



Flips

NZ's Food and Fibre Sector is incredibly complex and highly integrated. To illustrate the broad brushstrokes of the future, we reframe existing facts or problems as possible opportunities. The table below highlights several key transformations or “flips” that our discussions, observations and experience have led us to believe are possible, if the right mindset to change is adopted.



Horizon 1 Status Quo

Supply chains

Value-based competition

Optimisation

Finite mindset

Production focus

Workers

Hold power

Vertical sectors

Value of data

Stories

Growth orientated

Food as commodity



Horizon 3 Future

Ecosystems

Values-based competition

Transformation

Infinite mindset

Consumer focus

People

Empower

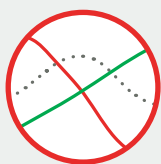
Cross-sector collaboration

Value from data

Verifiable stories

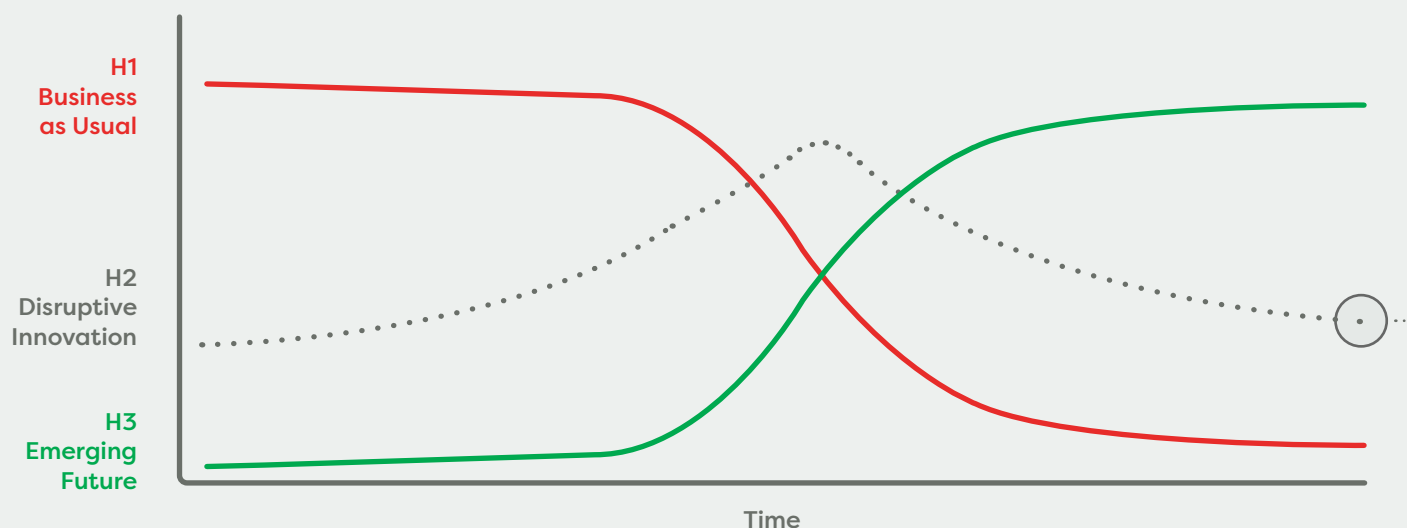
Purpose orientated

Food as a force for good



Three Horizons Growth Model

Developed by Bill Sharpe¹, the three horizons growth model can be used by mature businesses experiencing low growth resulting from intense market competition or a lack of innovation. The model enables organisations to consider growth-orientated futures without taking their eye off the current business.



- **Horizon 1 (H1)** – The current business. As time passes and things change, its relevance decreases. In the long run, organisations stuck in H1 will fail.
- **Horizon 2 (H2)** – The bridge where business decisions either enable the H3 future, or reinforce the H1 status quo. As decision-makers, we act from the H2 perspective - choosing either H2 positive innovations (that enable H3) or H2 negative innovations (that prop-up H1).
- **Horizon 3 (H3)** – The theorised future state. It represents profitable growth in the future through business activities not yet commenced, but identified in H1.

H2 negative vs H2 positive

H2 negative (H2-)

These strategies are often politically feasible, but prevent evolutionary disruption and may ultimately force revolutionary change. E.G. In 1973, the UK joined the European Economic Community. Instead of looking outward, New Zealand turned inward, borrowed heavily and regulated its economy, precipitating the revolutionary changes of “Rogernomics” in 1984.

H2 positive (H2+)

These strategies hasten the H3 future and allow systems, economies and people to adapt and evolve over time, without the trauma of revolutionary change. E.G. ‘He waka eke noa’ unprecedented primary sector collaboration building a framework to measure and reduce GHG emissions at the farm level. The initiative is a potential foundation for future cross-sector collaboration.

Example: Apple orchard

Horizon 1 (H1)

Harvest is dependent on mass labour, often migrant and difficult to source.

Horizon 3 (H3)

Automated harvesting using robotic pickers.

H2 positive (H2+)

Redesign new orchards using 2D plantings and experiment with machine augmented picking.

H2 negative (H2-)

Optimise traditional orchard design to save on design/construction/innovation costs.

Incentives

David Eade and Ben Anderson

Instead of driving environmental outcomes through regulation, the conscious consumer can provide NZ producers with the financial incentives to produce in more sustainable ways.



Incentives

David Eade and Ben Anderson



Our current farming models are unique when compared to many other industries. Farmers buy retail, sell wholesale and have little control over revenue - which is mainly generated by selling commodity products through long value chains to offshore consumers.

These tight margins incentivise low cashflow models that have historically relied on large volume and capital gain to generate financial return.

For many of us, this is what we currently know to be true when measuring farm return. However, as conscious consumers and local stakeholders place value in positive social and environmental outcomes - more is being demanded from the current model.

We are often quick to dismiss the needs of this consumer. In reality, the conscious consumer is the sector's biggest opportunity - they are willing and able to pay a premium for sustainably produced food.

Market leaders are finding new ways to capture this value. Without this shift, the current margins generated by production-based systems will not be enough to keep farmers on the land.

Value

"The ongoing inability to recognise, adapt to and draw value from conscious consumer preferences will limit farmers' ability to achieve the environmental outcomes expected by both these consumers, and local stakeholders who grant the 'license to operate'."

Significant opportunity exists in the environmental crisis. It provides the opportunity and impetus for NZ's producers to re-examine what our preferred customers want and create business models that are truly sustainable from environmental, social, cultural and economic perspectives. Instead of driving environmental outcomes through regulation, the conscious consumer can provide NZ producers with the financial incentives to produce in more sustainable ways.

The path towards value creation through sustainability is already known and can be replicated. However, scale and speed will require coordination and commitment at both industry and government levels.

Fit for a Better World

The Primary Sector Vision (underpinned by the concept of Te Taiao) is a good start to value creation through sustainability - positioning NZ as the world's leader in natural and sustainable agricultural production. To realise this vision however, we must produce food and fibre in a fundamentally better way than we do today. The values of Te Taiao should become embedded within all food and fibre organisational strategies and receive appropriate resources.

Sustainability Loans

Sustainability linked loans use the four capitals (social, natural, economics and human) to offer discounted interest rates for good practice.

Ngawha Park

A joint venture between private businesses and iwi set to create significant economic and social return to Kaikohe and the Far North. The closed-loop/zero-waste innovation park will both produce and add value to primary produce while supporting regional workforce training.



Business-to-distributor supply chains to **customer led supply chains**

Communicating directly with our customers and developing products with their needs in mind e.g. Wakatu is pioneering micro-nutrient products to meet specific Japanese consumer needs. This value chain draws a level of return commensurate with the value it adds.

Two-years behind the customer to **today**

Many of our current supply chains are two years behind the consumer as we forward-sell commodities to distributors. An example of a different approach to creating value is Atkins Ranch, who own the secondary processor in San Francisco to meet constantly changing consumer needs.

Price-based competition to **value-based competition**

A strategy of not undercutting other companies on price, but creating sufficient value to set the price. When faced with competition, value-competing organisations invest in explaining why their product is better and thus worth a premium.

Technology as a communication tool to **technology as a value creation tool**

Using technology to reduce inefficiency and more accurately meet consumers' needs e.g. Keravos, a technology turning coarse wool into biodegradable plastic.

Incrementally better to **fundamentally better**

We cannot crawl our way to greatness, we need to make "10X changes" that fundamentally disrupt the way we do things e.g. NZ company Dawn Aerospace aims to be 1000X more scalable than traditional rockets. This bold mindset is particularly relevant to NZ agriculture — our consumers expect it and our planet needs it.

Supply chains to **ecosystems**

Win-win supply chains that ensure appropriate value distribution. Put nicely by Gallagher, who define 'market-fit' as the point where "everyone in the supply chain is deeply happy".

The coming changes are unstoppable. If we embrace them and plan for them, we can use them to incentivise the stewardship we need to support our producers, local communities and our environment.

Transitioning to a new world will require a different approach to how we view production. Our local communities are pushing back against the negative externalities we generate in order to feed customers around the world. We can fight this - or see an opportunity to add value to a farming system that will be considered 'normal' 10 years from now.

We are seeing a new model take shape. Where value is placed in living systems that produce mutually beneficial outcomes to replenish our environment, culture and communities. As producers, we have to get comfortable with a larger percentage of our revenues coming from what we currently do not consider to be farm related income. It might also require us to fundamentally redefine our identity as 'farmers'.

The current commodity-based system only places value on produce once it is 'dead'.



David Eade

Alternative financing solutions to create economic, social & environmental change.

I'm interested in using finance as a tool for good. Food producers have the opportunity to be much more than just commodity producers. We have an opportunity to redefine value and move away from a system that places value on dead commodities to one that places value on the economic, social and environmental services created by living ecosystems.

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Ben Anderson

Finding the carrots

I'm interested in how we change the conversation on sustainability in our sector. There is significant economic benefit to be had by meeting, and exceeding, the expectations of the conscious consumer. I want to identify ways that the deer industry can reach the consumers we want, produce what they want, at a price that works for everyone. Then we can put away the sticks.

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Innovation

Shannon Harnett and Ben Mclauchlan



We have identified four innovation mindset personas – defined by risk appetite and the ability to pivot towards opportunities presented in our changing world.



Innovation

Shannon Harnett and Ben Mclauchlan



Innovation is the discovery and practical implementation of ideas that result in the introduction of new or improved goods and services. Closely aligned is adaptability - the quality of being able to adjust to new conditions.

Through our journey and conversations, we found both innovation and adaptability so closely aligned we have combined both concepts under innovation.

Innovation is not just the invention of the new 'thing' or process, but also new approaches to business models, supply chains or markets. It can be the new 'thing', and new ways of 'doing things'.

As we gathered insights, the recurring theme was change. Namely, the impact of weather events and changing climates, the essential nature of water and the growing consumer voice around sustainability.

As our food producers face these challenges, we identified 4 flips that help embrace the uncertainty, and set the stage for innovation and adaptability.



Flips

Finite to **infinite mindset**

The ability to look past the next quarter and focus on the long-term good. True entrepreneurs look at the game differently - they are driven by their values and a belief in their product.

Production-based to **consumer led**

The importance of a deep understanding of our consumer and the creation of products that match their needs and trends.

**Do as the consumer pays,
not as they say.**

Optimisation to **transformation**

Moving from great management (focussed on fixing problems) to great leadership (defining new problems).

**"Great Management is optimising the model –
Great Leadership is creating a new model!"**

James Parsons, sheep & beef industry leader

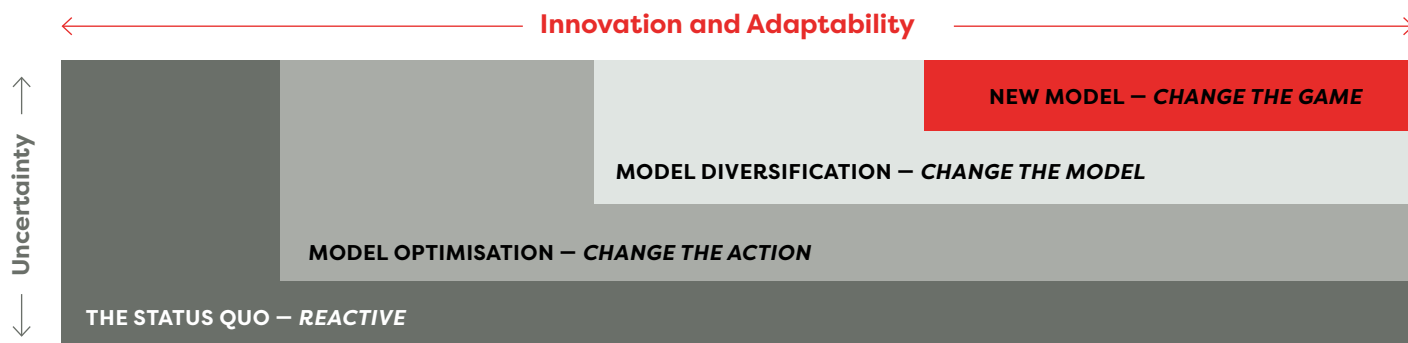
Production focus to **consumer focus**

There is power in companies and people who have insight and control through the value chain - from production to consumption. They don't wave goodbye to the product once produced, as so many of the status quo do.



Innovation Persona Matrix

We have identified four innovation mindset personas – defined by risk appetite and the ability to pivot towards opportunities presented in our changing world:



‘STEADY EDDY’

Estimated size: 75.5%

This segment keeps doing what they are doing. When change occurs, it is reactive, driven by regulation and only when they absolutely have to.

‘PROGRESSIVE PETE’

Estimated size: 20%

Superior management that gets the best out of the current model.

‘RISKY RICK’

Estimated size: 4%

Changing the model to utilise innovation.

Examples

Future Orchard Production Systems (FOPS) Developed by Plant and Food Research, a 2D Apple Orchard Trellis Systems (as used in viticulture) to enable mechanisation.

Glen Eden Farm
“Living the 10% crazy” – experimenting across 10% of on-farm production.

‘ENTREPRENEURIAL ELIZABETH’

Estimated size: 0.5%

True entrepreneurs that change the game. They embrace and thrive on high risk and high uncertainty.

Examples

Rockit Apples
Taking a miniature apple and marketing it successfully as a snack – to a consumer that previously desired large apples

Wakatu ‘Au Ora’
A values-led, in-organisation start-up incubator that pioneers products and commercial relationships based on end-customer needs.

There are risks to innovation. New knowledge and capital are required to change. From whom capital is sourced can have an impact on the return horizon – short-term (e.g. private equity) or long-term (e.g. iwi). There are risks from new competition and yet to be proven value chains. Potentially, the biggest barrier to innovation is personal – the impact on lifestyle and family.

Conversely, sticking with the status quo often feels safe... for a time.

There is always a balance to be struck between exploiting the gains of the past and exploring the potential future. That said, the drivers of climate change, consumer preference and access to capital are changing our game, with or without us. In an era of rapid change, innovation and adaptability is a ‘must have’ mindset for all of us.

How do we help move food and fibre producers through the Innovation Matrix?



Shannon Harnett

Plant variety rights: legal and operational opportunities and challenges

My report will use PVRs as a lens to explore consumer-led versus science-led innovation, the supply and demand of innovation, the impact of internal & international legislation and the relationship between innovation and entrepreneurship.

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Ben McLauchlan

Innovation Mindset

What are the blockages in the Kiwi mindset that hold us back from moving through the Innovation Persona Matrix? How do we overcome these?

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People

Lynsey Stratford and Edward Pinckney



We need to move from thinking ‘what can we get out of ‘workers’ (or staff)?’, to ‘what can the industry and its people co-create for each other’

This is a move from an extractive to generative mindset.



People

Lynsey Stratford and Edward Pinckney



Almost all businesses we visited identified attraction and retention of people as a key issue for the sector. However, only the most successful organisations truly built their businesses around people. The other businesses organised people around their business.



Competition to **collaboration**

Complexity is forcing collaboration. Contemporary challenges require diverse thinking and skills to navigate our **VUCA (volatile, uncertain, complex and ambiguous)** environment. This complexity means one person will seldom have all the right answers and will need to collaborate for successful outcomes.

Businesses that understood the importance and the place of collaboration (in the broader spectrum of collaboration, coordination, coexistence, competition) appeared to be the best placed to be future ready.

Workers to **people**

The more progressive businesses identified their people as **“people”** to be understood, valued and appreciated, rather than **“workers”** as a resource or commodity to be used.

In the most successful organisations we saw, **empathetic** leaders with strong interpersonal capability put themselves in their people’s situation and then provided tailored solutions which met their needs. The best leaders understood that high performance requires more than pay (**pay +**).

Example: Wakatu

Wakatu Incorporation demonstrates the power of collaboration. Their people work together (collaborate) internally and externally to support each other with a common mission. Their collaboration with customers to co-design product solutions is a great example of how the collaborative approach can achieve greater results, faster and more effectively.

Pay +

Remuneration is a hygiene factor for attracting and retaining people. But to attract and retain the most capable people in a competitive labour market, it is necessary to offer more (**pay +**). There is no “one size that fits all” and people look for different things (e.g. flexible working; tailored development, recognition and appreciation). However, employees increasingly want their purpose in life to align with their purpose at work. A strong purpose, values based and purposeful leadership and shared values are critical to a **pay +** environment, resulting in amplified impact.¹



We need to move from thinking ‘what can we get out of ‘workers’ (or staff)?’, to ‘what can the industry and its people co-create for each other’ This is a move from an **extractive** to **generative mindset**.

Hold Power to **empower**

We saw a number of examples of businesses empowering their people rather than using carrots and sticks to exert power and control over them. We were intrigued to hear that engaged and empowered people, in turn, empower companies to achieve their purpose.

Some of the best ideas come from deep within an organisation, from those at the coal-face who are closest to issues and information. **Our observation was that future ready leaders ensure:**

- systems and culture enable everyone to safely share their ideas and knowledge
- a focus on continuous improvement and innovation.



Intrapreneurs

Some of the most progressive and successful organisations went further and created a culture which supports **intrapreneurs** (employees who have the freedom and financial support to create new products, services, systems, etc.) and enables them to flourish. This helps retain the most innovative employees as they do not need to leave the business to run their own company (as an **entrepreneur**) and enjoy the freedom and support to innovate. Enabling intrapreneurs is critical for future ready businesses because this helps retain the most forward thinking, fully engaged employees.

This creates **win:win:win outcomes:**

- people experience higher motivation and engagement; they have autonomy, can make decisions and take appropriate action;
- the company taps into discretionary effort, diverse thinking and can retain the best people, increasing resiliency;
- customers benefit from products and solutions at the forefront of innovation.



Lynsey Stratford

Improving health, safety and wellbeing in the primary sector

I'll be exploring how our current systems create our health, safety and wellbeing culture, what opportunities we have to do things differently and how we might improve outcomes and create a future ready sector where people are safe, healthy and well in their work.

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Ed Pinckney

Making agriculture an attractive career choice

I am looking at how we attract people into New Zealand agriculture with support mechanisms and education systems to encourage them to grow. What systems need to be adapted? What changes to curriculums need to be made, from primary school delivery to policy level design?

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What critical skills do our leaders need?

To enable the right leadership outcomes and be fit for the future world it is important for organisations to select leaders on the basis of their intrapersonal and interpersonal capability, rather than just their professional/technical competency (as is often currently the case). This may be achieved through a focus on identifying and developing leaders with a focus on intra/interpersonal skills using the **Hogan Domain Model**.²



All four domains are important for effective leadership, but the intrapersonal and interpersonal domains are critical. Leaders with strong interpersonal skills demonstrate empathy (including for customers, employees or other stakeholders e.g. those who influence our social licence). They put themselves in those people's shoes, anticipate how they see the world and what they need/expect. These leaders modify their own behaviour to meet those needs and get the right outcomes and have the discipline (an intrapersonal skill) to stay focused, even when things get hard. This approach is aligned with the philosophy of **servant leadership**, where the goal of the leader is to serve the mission and the people they lead.

1. Daniel Pink's book "Drive, the Surprising Truth About What Motivates Us" 2009 Riverhead Books discusses scientific studies on motivation and rewards. He argues that while traditional "external" methods of motivation (e.g. financial rewards) do work for simple straightforward work, they do NOT work (and may negatively impact) performance where greater cognitive ability is required. Pink concludes that once people are paid fairly, they look for more from their work i.e. "intrinsic" motivation: purpose, autonomy and mastery.

2. R. Hogan and Warrenfeltz (2003) suggest that the four domains form a natural, overlapping developmental sequence, with the latter skills (e.g., Leadership Skills) depending on the appropriate development of the earlier skills (e.g., Intrapersonal Skills). The earlier in life a competency forms, the more difficult it is to change. For example, developing budgeting competencies (Professional/Technical Domain) is easier than developing a competency like initiative (Intrapersonal Domain). To change or improve intra/interpersonal competency requires a leader to be highly self-aware.

Silos

Phillip Weir and John Foley



If diversification is to occur and we are to transform our monocultures to mosaics of varied land use, how do our leadership organisations arrange themselves to support generational industry change?

Do these organisations need to undergo a similar degree of change themselves?



Silos

Phillip Weir and John Foley



We observed several deeply entrenched silos across the food and fibre sector. We identified three that stand out:

1. The Underpinning Silo: Commodity based leadership and association
2. The Long-Standing Silo: Science, research and development
3. The Emerging Silo: Data



The underpinning silo: Commodity based leadership and association

The majority of agricultural organisations in New Zealand are arranged on the basis of the commodity they produce (i.e. dairy, meat or vegetables).

It is natural for farmers who produce a similar product to be represented collectively e.g. for onion growers to pool resources for advocacy, research, development and extension. However, given the contemporary shift in focus away from maximising production efficiency to advocating and lobbying for agricultural interests in the environmental policy debate - are the structures and focus of these organisations appropriate to maximize the outcomes for those they represent?

If diversification is to occur - e.g transforming our monocultures to mosaics of varied land use - how do our leadership organisations arrange themselves to support generational industry change? Do these organisations need to undergo a similar degree of change themselves?

Perhaps, taking a leaf from nature, we might ask how we replicate a leadership ecosystem that is independent, interdependent, modular and adaptive.



The long-standing silo: Science, research and development

The New Zealand Government's annual investment of \$440 million into agricultural sciences lags behind our international competitors (on a percentage of GDP basis.)

Under-investment in R&D means the pressure to deliver commercial outcomes is even greater.

On our travels through New Zealand we saw many excellent examples of innovation - in horticulture, aquaculture, dairy, fish farming, animal genetics and sheep & beef.

Conversely, we observed siloed science across the Crown Research Institutes (CRIs), universities, industry bodies and cooperatives. These observations were noted in the 2020 Crown Research Review, where a key finding was that the funding model was creating unproductive competition, with multiple parties jostling for position amongst funders and industry.



The emerging silo: Data

New Zealand agriculture has long talked about the need to tell our story better, so that our consumers understand the provenance behind our products. This story increasingly needs to be backed by factual evidence.

Our customers will demand the detail of how we are doing the right thing - by them, their health, our animals, people and environment. But currently, data within New Zealand agriculture is typified by non-integrated solutions.

The reasons for siloed data are complex, including:

- Ag data complexity – dealing with a biological system that has many interrelated outcomes.
- Data ownership and privacy. A mindset of holding onto data in the hope of eventual value vs finding value in the data now – often through collaboration with those with the right expertise/motive.
- No agreed data standards.



Breaking the data silo

Climate change

In response to incoming regulation, 'He waka eke noa' is a collaborative partnership between the government, primary sector and iwi groups to measure and reduce agricultural GHG emissions.

Water quality

Farm environment plans require verified data to demonstrate good management practice (GMP).

External customer pressure

European supermarkets were lobbied to drop the minimum residue limits on a range of food products below the European Food Standards. Within 3 to 5 years it is expected that retailers from Europe will demand NZ fruit growers demonstrate similar sustainability credentials. Traceability must move beyond silos to provide this information.

Natural capital accounting

Rising data standards will be required to make this emerging financial practice feasible in the future.



Flips

Vertical sectors to cross-sector coalitions

The opportunities and threats facing NZ agriculture are complex. Pan-sector leadership models will be required to navigate these challenges.

Sector-based research to pan-sector thought leadership

New Zealand agricultural research is often typified by talented people competing with other talented people to do great, but similar things. Research, like leadership, requires disciplined co-ordination.

Value of data to value from data

Too many organisations are holding data in the hope of future value. This behaviour slows down tech adoption. We need to change the mindset to a collaborative view on data.

Stories to verifiable stories

To influence our stakeholders in a hyper transparent connected world, our stories need verifiable, credible and preferably independent underpinning facts.



John Foley

Agricultural science funding in NZ: Agritech.

I will explore the science funding models used in NZ agriculture to determine if they are suitable to transform New Zealand into a global Agritech leader.

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Phil Weir

Farmer advocacy and the structures which enable it

I will explore how the New Zealand Agricultural system is arranged in the grey area between public and private good. I will examine how the sector is organised and whether the structures, incentives and drivers are fit for purpose to enable the success of New Zealand food and fibre production.

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Leadership

Tracy Brown and Daniel Eb



We need a new breed of leader - committed not to 'patch protection' and simply mitigating challenges - but to redesigning our systems for resilience in the face of crisis.

Leadership

Tracy Brown and Daniel Eb

It is time for Aotearoa New Zealand's primary sector leaders to acknowledge that we now operate in a time of environmental, market & social license crisis.

Our 150 year + model of production & capital gain is overshooting environmental limits, failing new farmers to the sector, eroding social license and leaving one-in-five Kiwi children hungry.

The natural and cultural context in which we farm is rapidly changing - compounding pressure on the food system our forebears built, but that we maintain.

Put another way - climate change, conscious consumption, disruptive competition and food inequality are colliding with entrenched systemic failures - like siloed organisations, leadership no longer fit for purpose, long-value chains, natural resources limits and people shortages.

It is our responsibility as leaders to reconnect with our core purpose as food producers and environmental stewards. We, as leaders, need to repurpose the failing 'production & exploitation model' and genuinely redesign for the changed context - meeting environmental and social crisis, with environmental and social regeneration.

Deep, disruptive transformation is no longer optional, but a prerequisite for organisational and sector survival.

But when we asked people if they felt primary sector leaders were capable of transforming the model that put them there, most said no.

We need a new breed of leader - committed not to 'patch protection' and simply mitigating challenges - but to redesigning our systems for resilience in the face of crisis.

The three horizons of food leadership

When faced with change, our leaders have the choice of two responses:

H2 (negative) leadership

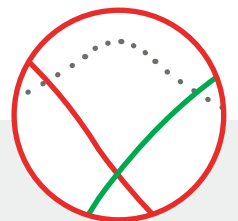
Protecting the existing model in the face of change e.g.

- 'Ag-gag' laws - leveraging political power to prosecute animal welfare whistle-blowers
- Live animal export - prioritising production despite clear ethical issues

H2 (positive) leadership

Prioritising innovation and leading transformation e.g.

- He Waka Eke Noa - collective problem solving and resource pooling
- Kaipara Kai - accelerating land-use change
- Dawn aerospace - building a 10X impact business model from the start
- Wakatu - mandating business groups to take risks and pioneer categories to meet specific customer needs, while working for environmental and social outcomes





Growth orientated to **purpose orientated**

We can't farm our way out of our current issues. Our production system is reaching its resource limits and productivity gains are levelling off.

We have to focus outside the farm-gate to make progress now. This requires a high degree of EQ (emotional intelligence) – the ability to understand and design for our customer's (and stakeholder's) problems and think in the context of ecosystems rather than commodity and organisational silos.

The 'growth' to 'purpose' flip is about genuinely listening to these people. When we do, we'll hear that they want solutions for dirty rivers, the climate crisis, food security, biodiversity collapse, human health and thriving communities. The irony is that most of our producers want these things too.

To retain (or in some cases, regain) social license and unlock capital, the sector needs to meet the needs of others in society and begin to think in terms of multi-stakeholder outcomes. We need to move from growing shareholder capital, to growing stakeholder capital also.



'Te Mahere Whakauka (The Hope Project)' is a marae based social enterprise project using food, fibre and ecosystem restoration (like native tree nurseries and community gardens) to scale sustainable jobs across 32 iwi enterprises. Progress is measured against all 12 of Treasury's wellbeing domains.



Tracy Brown

Values Based & Purposeful Leadership

Increasingly, discerning consumers will use their purchasing power to 'do good' for people and the planet. If New Zealand is to remain a global food leader, it follows that our leadership will increasingly be called to be values based and purpose driven. In the past our production system has been based around value, now conscious consumers increasingly buy 'values'. This research will explore how we need to transform our production systems to retain (and in some cases regain) our social license.

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Food as commodity to **food as force for good**

On many measures, our domestic food system fails to nourish New Zealanders. For a start, we rank 3rd for global childhood obesity and waste a third of what we grow.

Our social license is under threat because the economic returns generated by food exports are perceived to be retained by industry, while local communities suffer from nutrient-poor (often imported) food and the environmental externalities of our production.

For Aotearoa New Zealand to develop a proud, food producing national culture (the end-goal that mitigates our challenges with social license, value capture, conscious consumption and talent availability), domestic food justice must be prioritised. Examples of promising, primary-led food equity movements include 'Meat the Need' and 'Feed Out'.

This flip moves from valuing food purely as a commercial good (which undervalues its other attributes like food as healthcare, human right or social connector) to a model that might take inspiration from the common's approach applied to public education or healthcare.

Every Kiwi gets quality schooling and treatment, because that's how we build a resilient, productive society. So why not healthy food?

On-the-ground, the food as force for good flip looks like more community gardens, direct-to-customer local relationships, ethical grocery, seasonal whole-food eating and other low-intensity, high connection models. It is not an outright replacement of the commodity and high-value export model, but a complementary pathway – mitigating their domestic shortcomings by building a proud food & farming national culture, that all Kiwis can feel a part of.



Daniel Eb

Redesigning the domestic food system for good

I'm interested in local food system models focussed on domestic food equity and environmental restoration. I consider purposeful redesign of the domestic food system as the foundation for a food-nation culture – a clear expression of our values that will help us earn our premium and lead global transformation.

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Appendix

The 2021 Nuffield World Tour of New Zealand

For the first time in 71 years of NZ Nuffield Scholarships, two year-groups have worked together. In another first, they travelled the length and breadth of NZ to find insights, meet leaders from many walks of life (both inside the primary industries and out), to gauge the opportunities and challenges that NZ's food and fibre sector will face in coming years.

The national field research was carried out over 22 February – 13 March 2021. Travelling as two cohorts, the 2020 and 2021 Nuffield Scholars travelled as far North as Kaitiaki, as far East as Wairoa, as far West as Manapouri and as far South as Curio Bay. Following separate itineraries aligned to their topics, the two cohorts came together at several points across the country for shared visits.

3200 kms


71 visits, interviews and conversations (*2020 cohort*)

67 visits, interviews and conversations (*2021 cohort*)

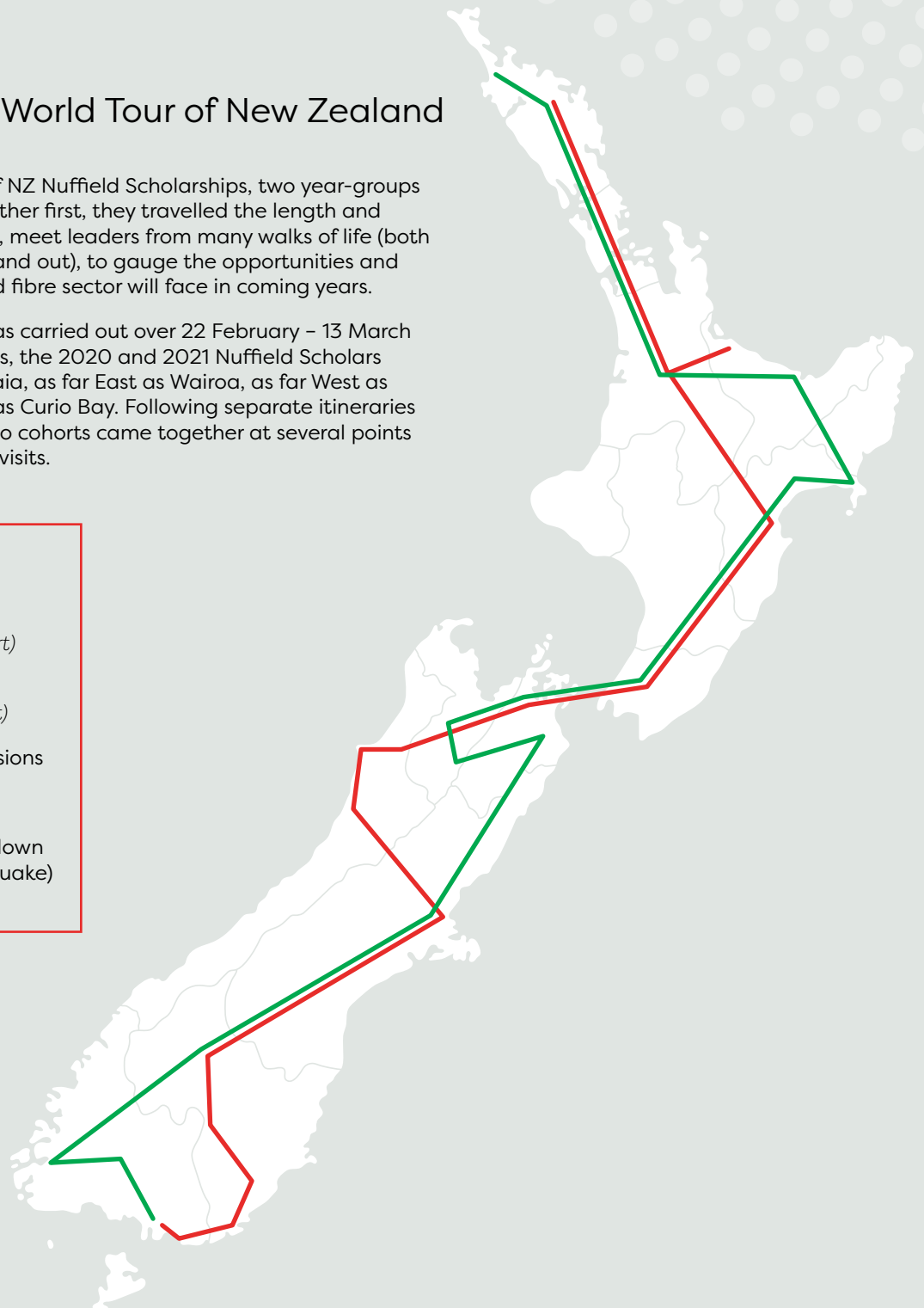
2 insight development sessions

6 alumni musters

1 Auckland COVID-19 lockdown (and an East Coast earthquake) narrowly missed

 2020 Cohort

 2021 Cohort





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**Global vision,
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innovation**



About Nuffield

“Nuffield is a process to create insights and foresight”.

In 1947, William Morris, Lord Nuffield; an innovator, philanthropist and visionary created the Nuffield farming scholarship to recognise agriculture’s contribution to feeding the British Empire during World War 2. Today the World’s most acute challenge is COVID19. In a pandemic ridden world, the importance of food security has again garnered global focus. Consequently, these scholarships are even more relevant and more crucial to our future success as a food producing nation.

Thanks to our editors

The scholars extend their thanks to two people in particular who supported this report. Their intellectual input, sharing of models/frameworks and editing was invaluable, ngā mihi nui.



Chris Parsons
MNZM, DSD, CMInstD
CEO NZ Rural Leaders



Professor Hamish Gow
Massey University

Thanks to our partners

Nuffield NZ and NZ Rural Leaders are charitable trusts. Our passion and purpose is to develop strategic leaders for our country so New Zealand can remain on the global forefront of agriculture.

If New Zealand is to thrive, we need leaders who ask the hard questions, challenge the status quo and are adroit at fostering collaboration. This can only happen in an environment where challenge is welcomed, supported and resourced. Our investing partners, media, service, academic, and regional partners are all instrumental in making this possible.

We are deeply indebted to all our partners for their leadership, their candour, and their support for the future of our food and fibre sector. We are also deeply grateful to the Nuffield Alumni around the country, and across the world, for their continued willingness to engage. We are equally grateful to the hundreds of people our Scholars have engaged with throughout their Nuffield journey.

Chris Parsons
CEO Rural Leaders

Strategic Partners



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Media & Service Partners



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