

Creating Value for New Zealand Agri-food Exports: An Introduction to the Value Chain Compass

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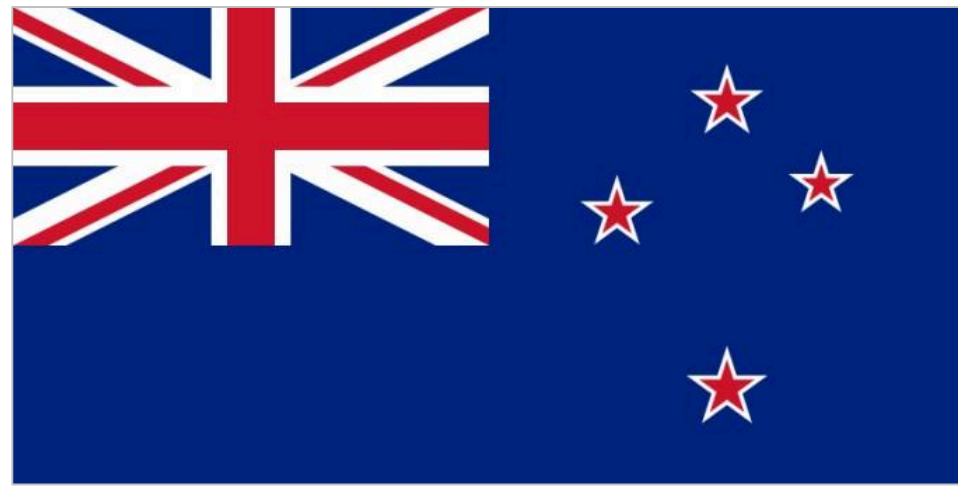


Agribusiness
& Economics
Research Unit
LINCOLN UNIVERSITY



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Introduction



Loading "Clan McDougall" with frozen meat for England, date and photographer unknown.

Source: Archives New Zealand



New Zealand's early prosperity grew out of exporting three land-based commodities to the United Kingdom: meat, dairy and wool.

Many initiatives, including those listed on the right, are aiming to create and capture greater sustainable value from food and fibre exports, which remain very important to the economy.

This Research Briefing presents results of research, funded by the [Our Land and Water National Science Challenge](#), which identifies nine key elements of successful agri-food value chains from New Zealand.

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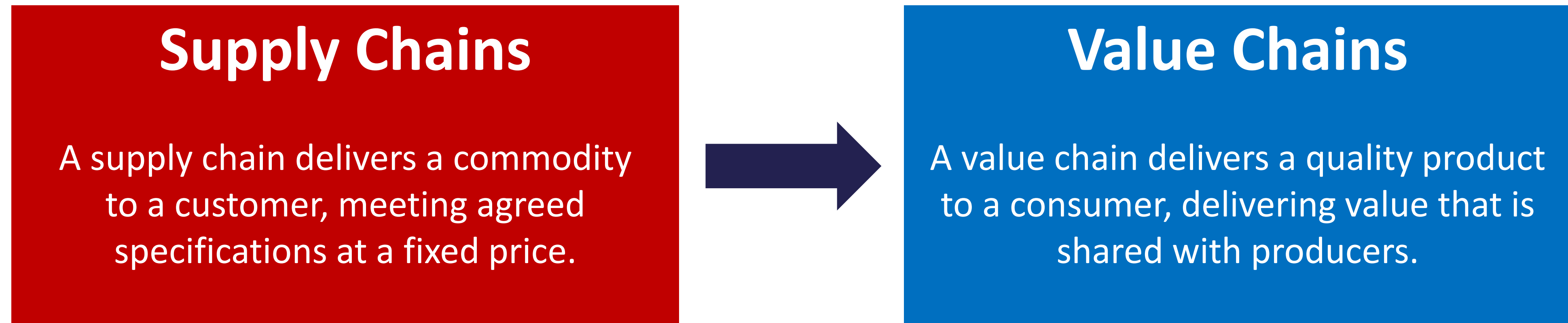
He Waka Eke Noa—
**OUR FUTURE
IN OUR HANDS**

Section I

From Supply Chains to Value Chains

From Supply Chains to Value Chains

Creating and capturing greater value requires a transformation of supply chains into value chains.



The focus of the chain is not on the product itself, but on the value brought to the final consumers.

A Traditional Supply Chain

In the food and fibre sector, a traditional supply chain begins with producers delivering their harvested outputs to processors.

There may be further manufacturing before exporters sell the commodity to overseas importers. The importers sell to retailers, who sell the commodity to consumers.

The producers, and even the exporters, may have little knowledge about the final consumers.

They aim to deliver commodities efficiently to specifications set by agents with the most market power (who are typically the retailers, since they know their customers).

The arrows represent movements of the commodity along the chain to the consumer.



A Value Chain

A value chain requires flows of knowledge in both directions to create a high-value, quality product for final consumers.

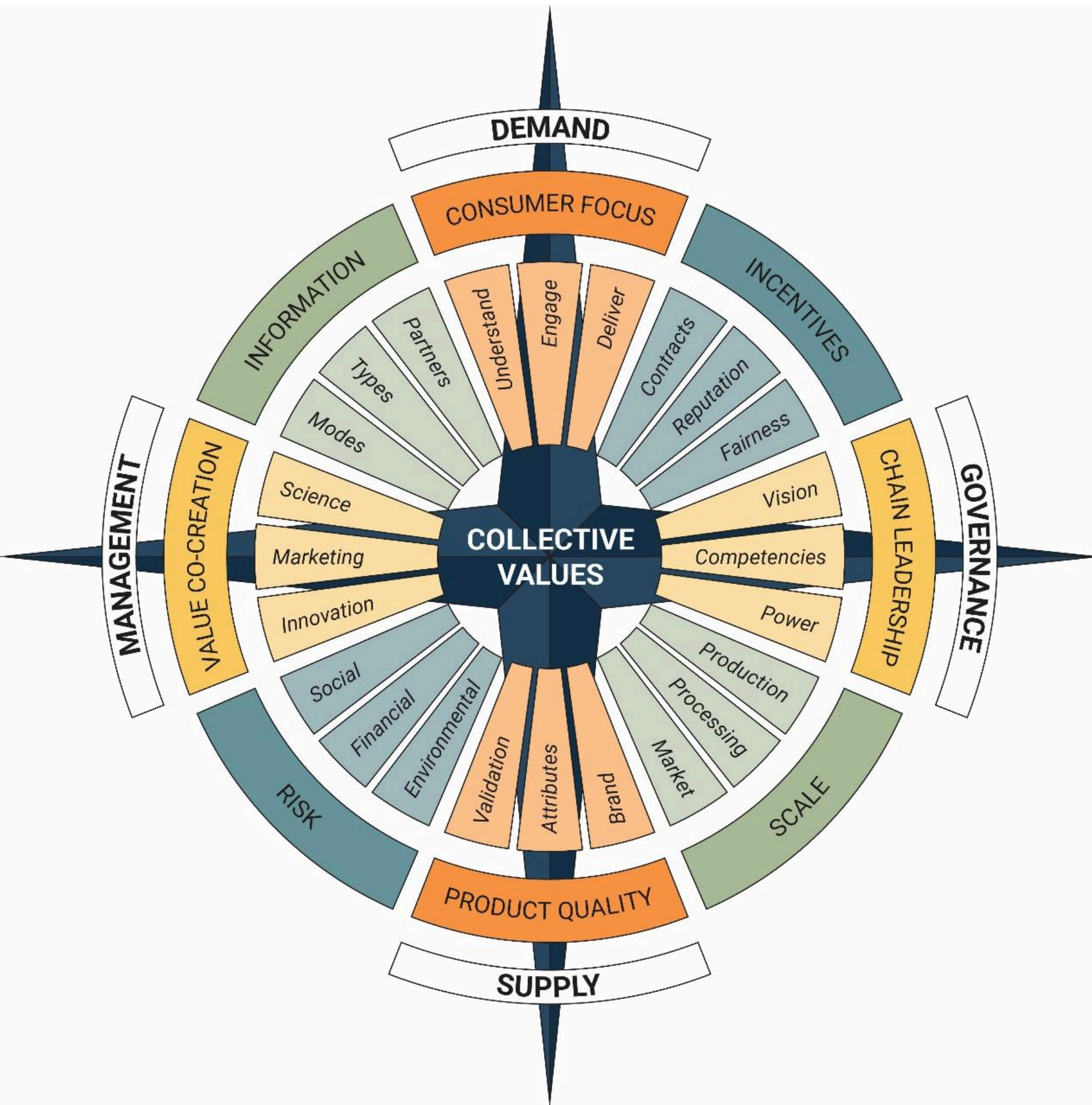
In the food and fibre sector, a value chain learns what consumers value, and that knowledge passes back along the chain to processors and producers.

The value chain also understands all the valued attributes in its production and distribution systems, and that knowledge passes forward along the chain to retailers and consumers.

The arrows represent dual movements of knowledge about value along the chain, from the consumer to the producer, and from the producer to the consumer.

Producer ↔ Processor ↔ Manufacturer ↔ Exporter ↔ Importer ↔ Retailer ↔ Consumer

The Value Chain Compass



The Our Land and Water research programme (see the Appendix) produced a list of nine key characteristics of successful food and fibre value chains.

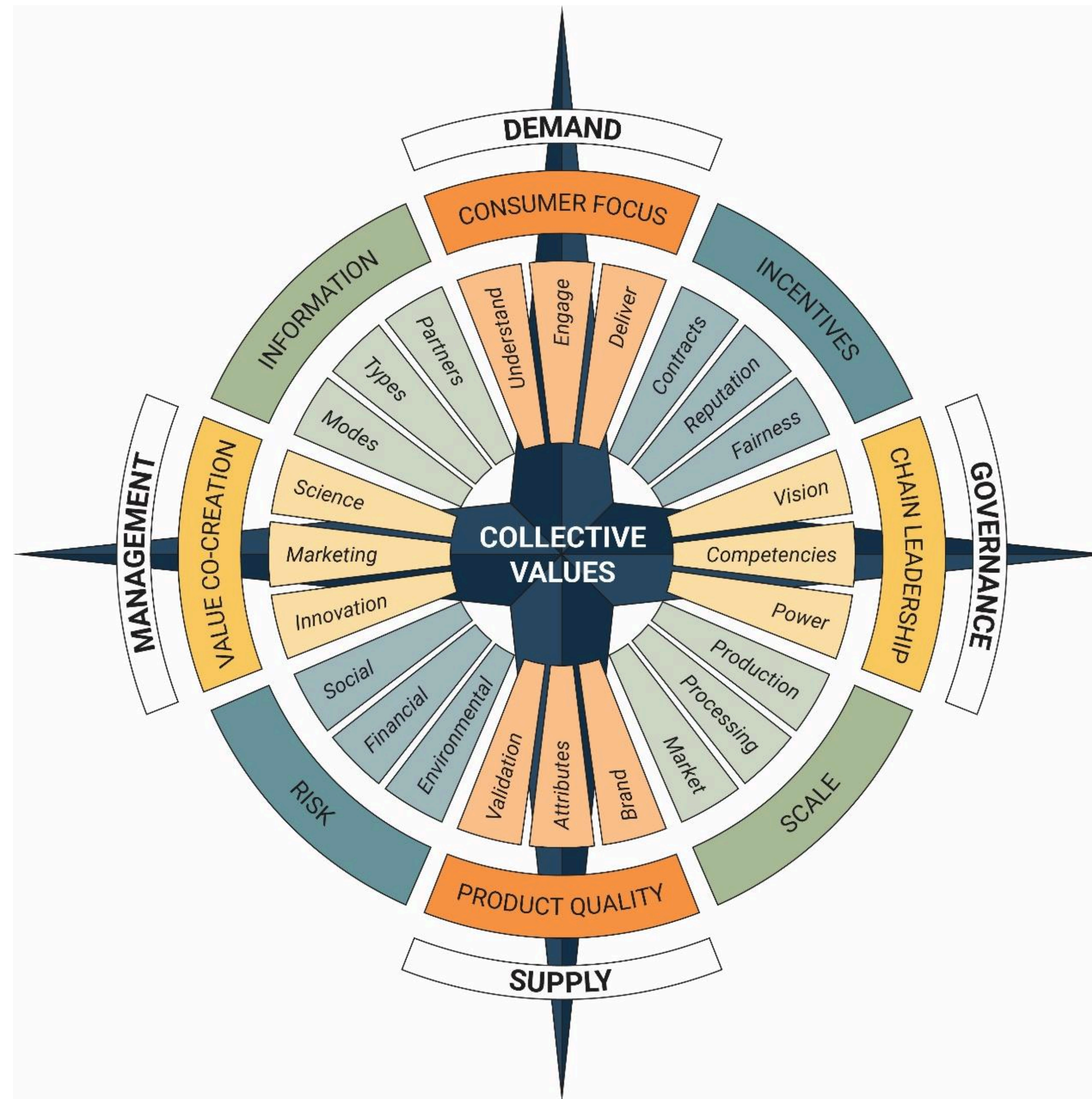
Further work organised these key characteristics into a diagram that we are calling the **Value Chain Compass**.

The Value Chain Compass offers a guide for enterprises wanting to create a new value chain, or to transform an existing supply chain into a value chain.

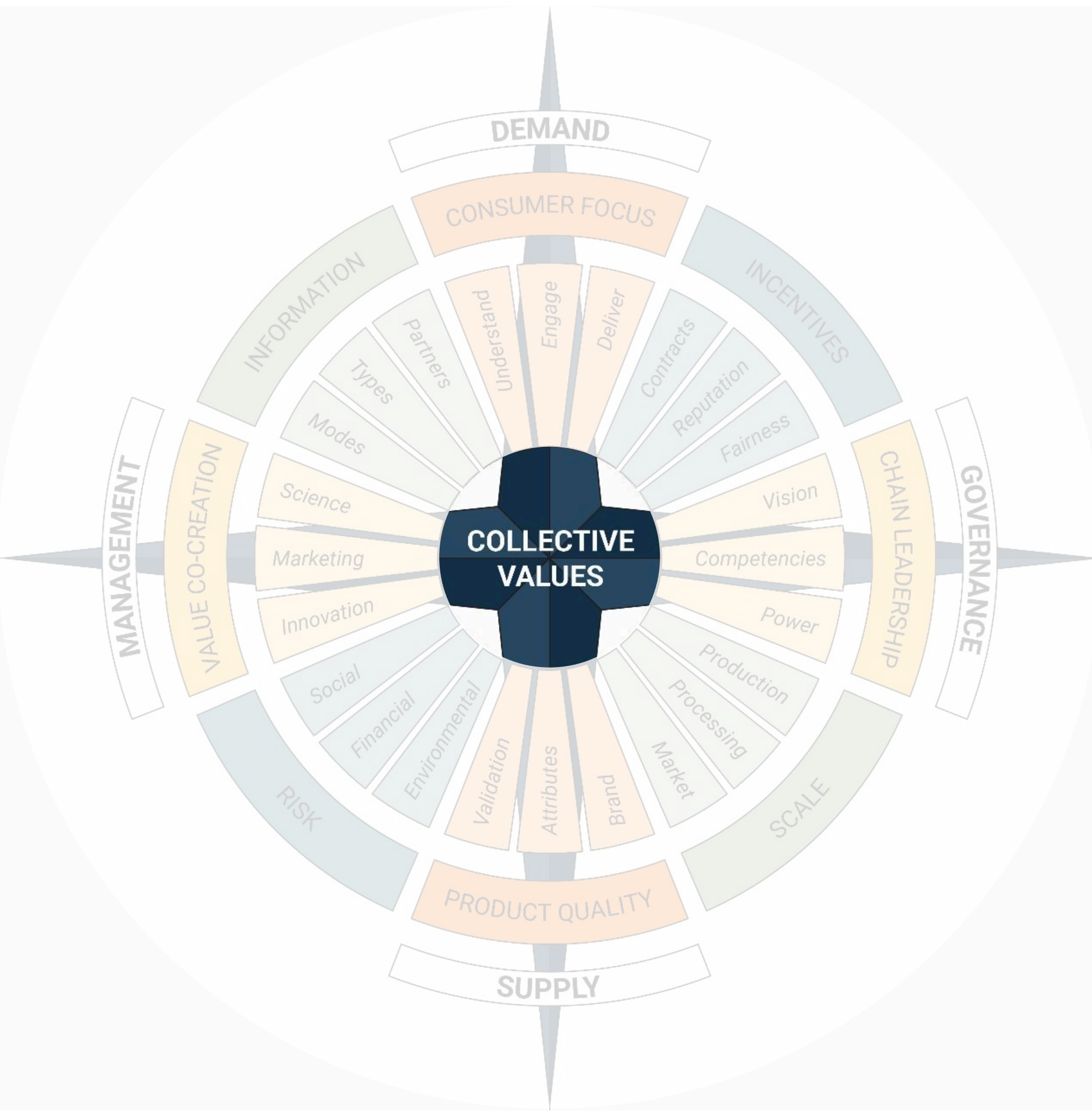
Section II

The Value Chain Compass





The Centre of the Value Chain Compass



At the centre of the Value Chain Compass is the chain's 'Collective Values'.

This refers to the collective values held in common by the partners along the chain – from producers to the final consumers – that produce a strong value chain.

The collective values for premium food and fibre products typically include concerns such as food safety, animal welfare, environmental sustainability, social responsibility and cultural authenticity.

Collective Values

Collective values is the first of the nine key characteristics of successful value chains identified in the research.

Collective values acts as a binding attribute in sustaining successful value chains, encouraging collaboration along the chain, both to create value for consumers and to solve challenges that emerge.

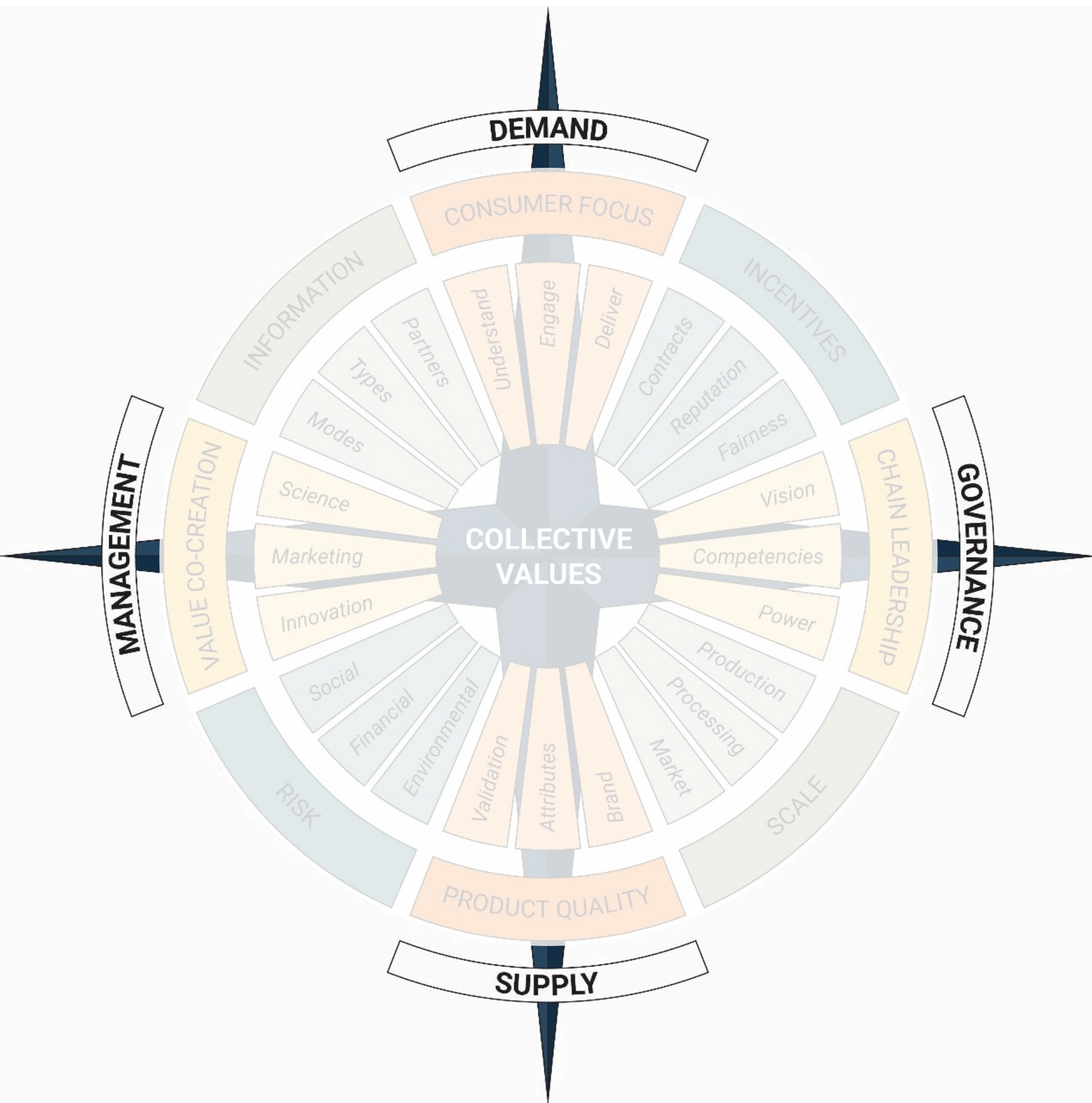
This commitment to collective values can also be an important asset for value chain organisation, reducing the need for tightly specified contracts in advance.

In all the case studies, the research team saw evidence of collective values being an important element of the value chain and a foundation for the product brand.

In some cases, values are expressed in posters on a workplace wall, or codified in public documents on websites, helping to protect the brand narrative of the chain.

For the Māori enterprise value chains, there can be explicit commitment to values such as *kaitiakitanga*, *hihiko*, *whanaungatanga*, *rangatiratanga*, *manaakitanga* and *pono*.

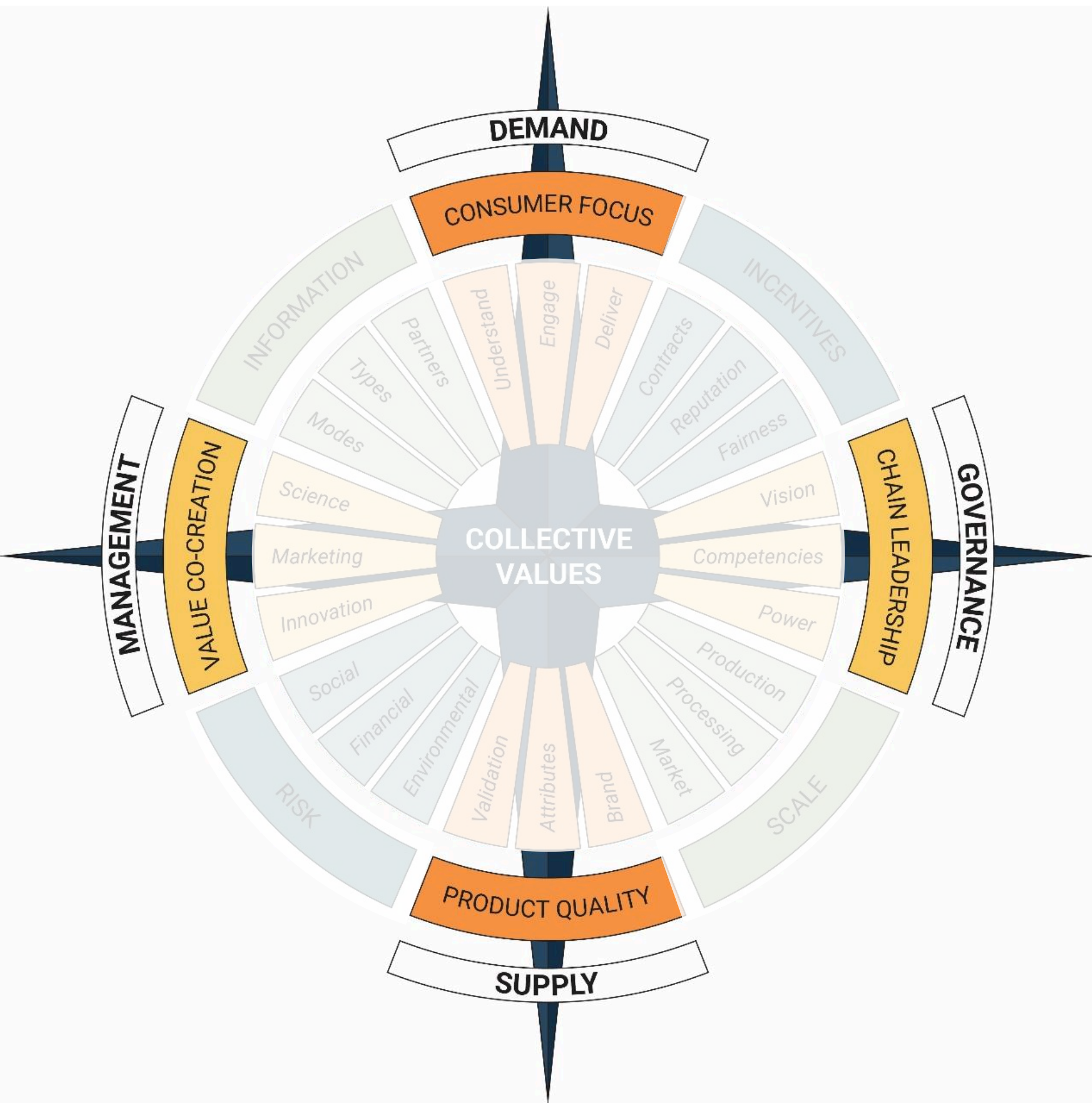
The Four Points of the Value Chain Compass



The four points of the Value Chain Compass address major aspects of any market enterprise:

- **Demand:** The willingness of consumers to pay for the enterprise's goods and services.
- **Supply:** The quantity and quality of the goods and services provided by the enterprise.
- **Governance:** Determining the overall mission and strategy of the enterprise.
- **Management:** Organising resources and activities to implement the strategy and advance the mission.

The Four Points of the Value Chain Compass



A key characteristic of successful value chains is associated with each of the four points:

- **Demand** is associated with ***Consumer Focus***.
- **Supply** is associated with ***Product Quality***.
- **Governance** is associated with ***Chain Leadership***.
- **Management** is associated with ***Value Co-creation***.

Consumer Focus

The price final consumers are willing to pay drives all value in the value chain.

Accurate knowledge about consumers must be shared with all partners in the chain to ensure value is created and captured:

What market segment do we target?

What product qualities do they value?

- Taste and other physical attributes?
- Sustainability and other credence attributes?

What words do they use for these qualities?

Who are the key market influencers?

The case studies in the research all put considerable effort into understanding the values of their final consumers.

- Consumer surveys
- Focus group discussions
- Taste tests
- Recording feedback on web-based platforms
- Interviewing chefs in restaurants

An important element was to create a clear understanding of the target consumers who valued the quality attributes of the product.

Product Quality

Product quality is crucial in chains dealing with food products, since food safety and emotional or cultural connections to food are large concerns.

Generally, consumers are willing to pay a premium only if they judge the product to be high quality.

Quality judgements involve a range of factors. If any factor is missing (or if a product claim is thought to be dishonest), then the consumer may dismiss a product as low quality.

All the case studies paid careful attention to quality control, including the validation of all product claims.

Product quality standards are ultimately set by consumers, even if mediated by industry or government regulation.

For Māori producers in the case studies, the authenticity of product claims was enforced by commitment to cultural values practised and respected for generations.

Some chains set strict standards for product quality throughout the value chain.

Chain Leadership

The research identified three elements to leadership in a value chain.

- 1. Chain Champion:** The actor who drives the development of the chain, especially when it first enters the market.
- 2. Chain Leader:** The member of the chain that drives the chain's unique features creating value for the final consumers.
- 3. Power holder:** The member of the chain that holds strategic assets or knowledge that allow it to exercise market power.

Because the case studies were consumer focused value chains, the power holder was typically the retailer closest to consumers.

Nevertheless, the chain champion and leader were often closer to producers, based on knowing the product's qualities.

This was particularly evident in the Māori enterprises studied in the research, where Māori *mātauranga* and *tikanga* were key elements in the value proposition.

The case studies were very focused on protecting the integrity of their brand.

Value Co-creation

A feature of value chains is that creation of new value requires collaboration by different parts of the value chain.

A retailer might identify an opportunity that requires changed behaviour by processors, or a producer might identify an opportunity requiring different marketing by retailers.

Co-creation might be a *purposeful* element of a chain (that is, intentionally designed by the leadership of the chain), or it might be *associative* (that is, derived from day-to-day operational improvements).

All the case studies recognised benefits from value co-creation.

In some cases, partners along a value chain were chosen because of their ability to participate in value co-creation.

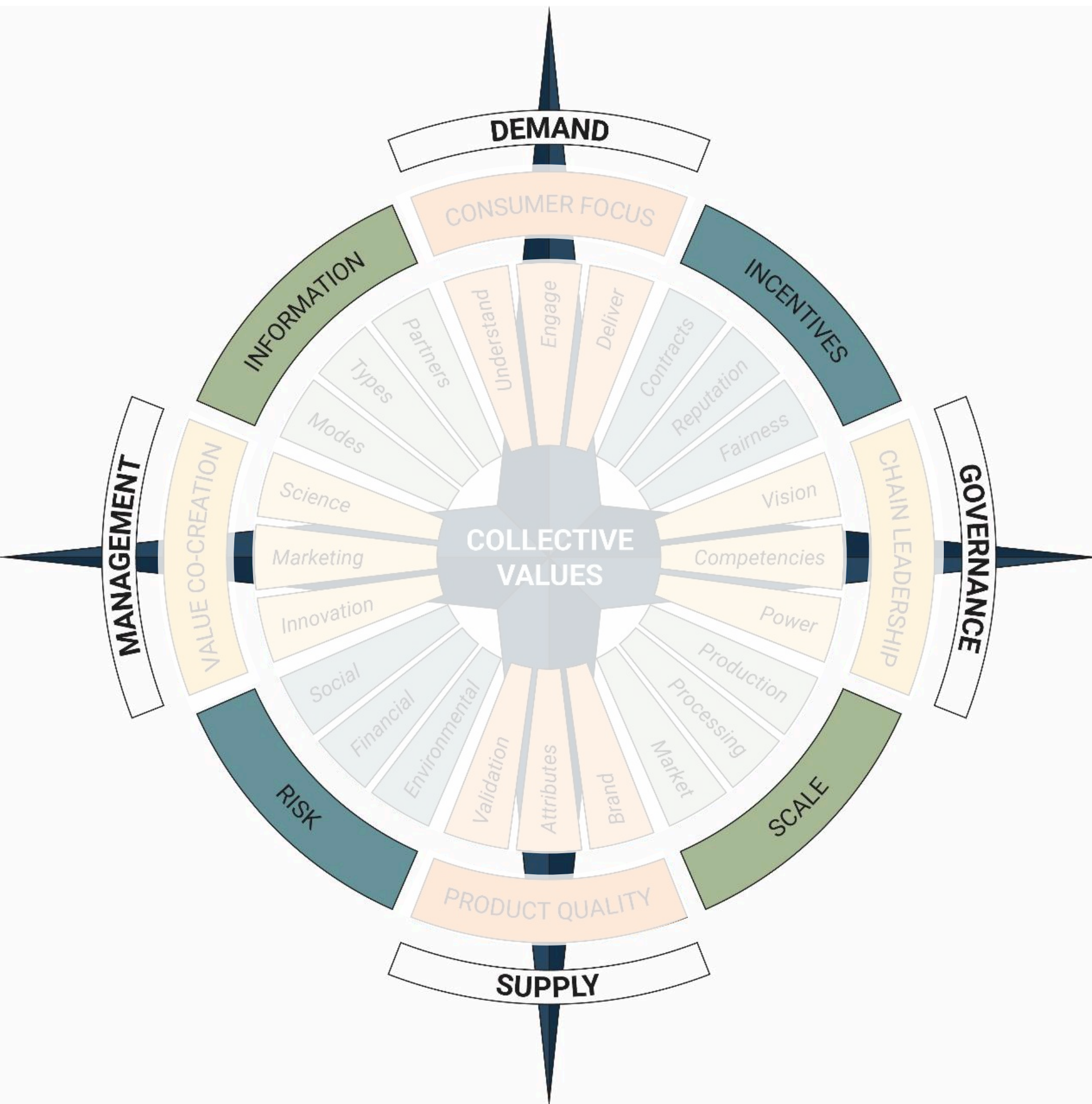
This could include the choice of retailer based on the retailer's knowledge of a particular market segment.

In one case study, the design of a new product involved close interactions among the producer, manufacturer and overseas retailer.

Four Other Key Characteristics

Four other key characteristics of successful value chains have been placed around the compass, depending on their association with demand or supply, and their association with management or governance:

- **Information**
- **Incentives**
- **Risk**
- **Scale**



Information

A global value chain from New Zealand producers to overseas consumers can be lengthy, involving several links in the chain and diverse cultures.

This means a value chain needs to work out how information about producers is shared forward along the chain, and how information about consumers is shared backward along the chain.

These information flows are what turns a supply chain into a value chain.

The case studies all valued face-to-face or *kanohi ki te kanohi* relationships for bringing together value chain members.

On-line platforms and emails were also useful for direct communication and for distributing market oriented information.

Cultural and bilingual skills (including knowledge of Māori cultural values in some of the case studies) can be critical.

Some chains enter into formal certification schemes audited by the industry or by an independent third party.

Incentives

A market oriented value chain needs to ensure that product qualities valued by final consumers are protected at every link in the value chain.

This means ensuring that the reciprocal incentives for partners in the chain align to the product qualities valued by consumers.

If environmental stewardship is a factor, for example, then incentives for producers, processors, distributors and retailers must align to support environmental claims made to final consumers.

In some of the case studies, reciprocal incentive alignment was achieved through contracts with risk and reward sharing clauses.

In other case studies, the value chain was made up of firms with a trusted commitment to shared collective values, which can achieve the same outcome.

Incentives for producers are particularly important if the desired product attributes (such as environmental stewardship) involve extra production costs.

Risk

Primary sector producers face challenges related to continuity of supply:

- Seasonal limitations
- Adverse weather events
- Environmental constraints
- Biosecurity threats

This creates issues of resilience and adaptability for agri-food value chains.

These issues are particularly important for value chains where consumers or retailers put great weight on assured supply.

The case studies reported experience of these challenges, which could be periods of financial stress and heavy workloads.

The variety and uncertainty of the different challenges make formal risk plans difficult.

Instead, an ability to be resilient and adaptable in a crisis is a key aspect to sustaining a successful value chain.

The case studies reported that shared values among participants in the chain are helpful in fostering resilience and finding solutions to a serious challenge.

Scale

An important decision is the scale of the value chain, since this is reflected in the level of investment in items such as processing plant and retail network.

High volume market entry might capture economies of scale (and so reduce average costs) while low volume market entry can focus on a specific niche market.

This decision is particularly important for a new value chain, since it can take time to establish a visible market presence and consumer awareness of a new brand.

In the four case studies of new value chains, the question of scale was a major consideration.

Issues raised in the case studies included:

- the minimum market demand needed for a financially viable business proposition;
- introducing a new product might reduce the economies of scale of other products manufactured by the enterprise;
- concerns that increased volume would harm the artisan qualities of the product.

Section III Conclusion



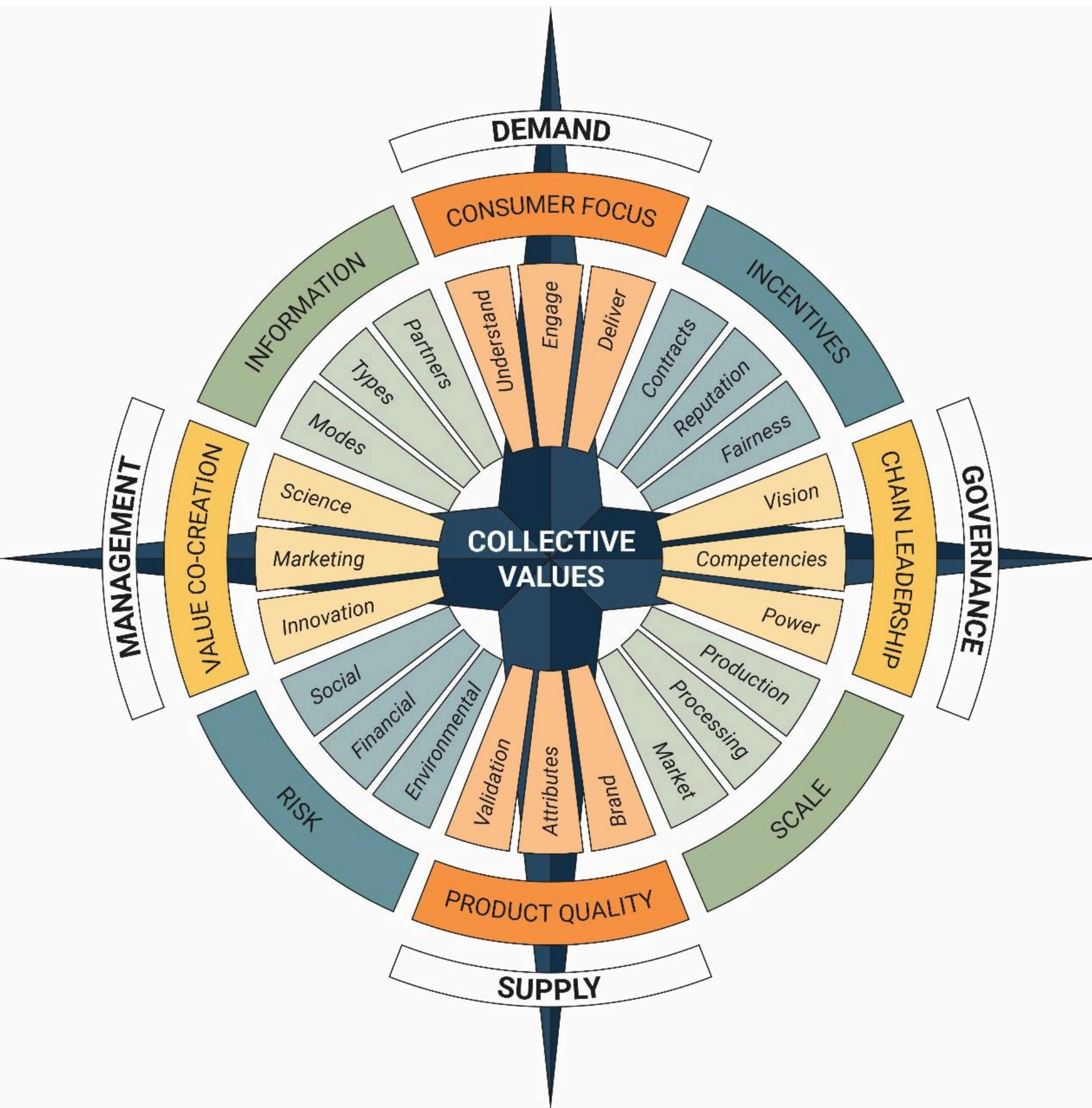
The Value Chain Compass

Like all compasses, the Value Chain Compass is a **directional guide**, not a recipe book, for users.

It highlights nine key characteristics of successful value chains and presents them in an organised way around demand, supply, governance and management.

At the centre is the chain's set of collective values, which support the other eight characteristics.

The diagram also shows three elements for each of the eight characteristics. These 24 elements are not covered in this introduction, but will be the subject of a separate Research Briefing.



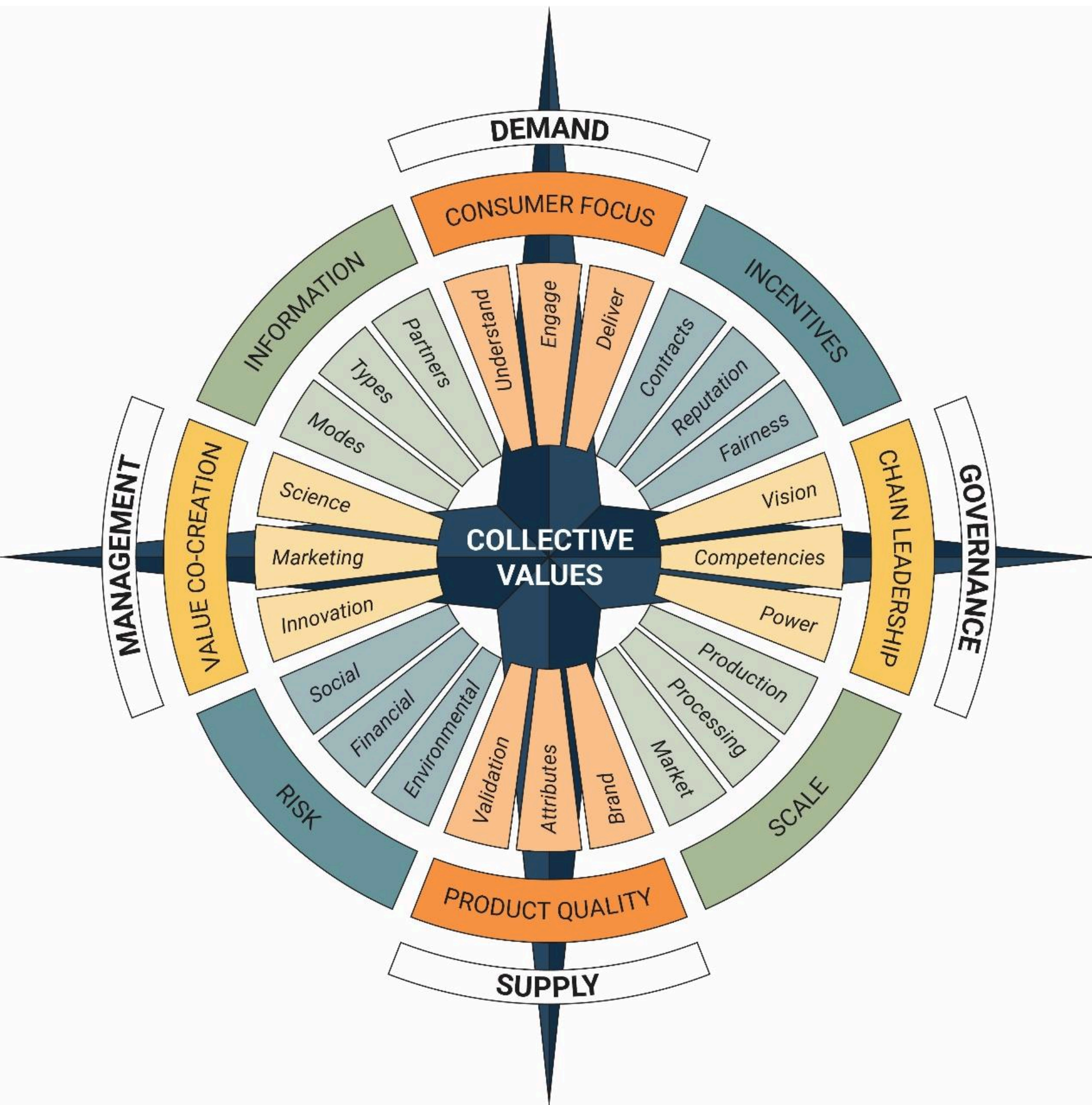
Next Steps

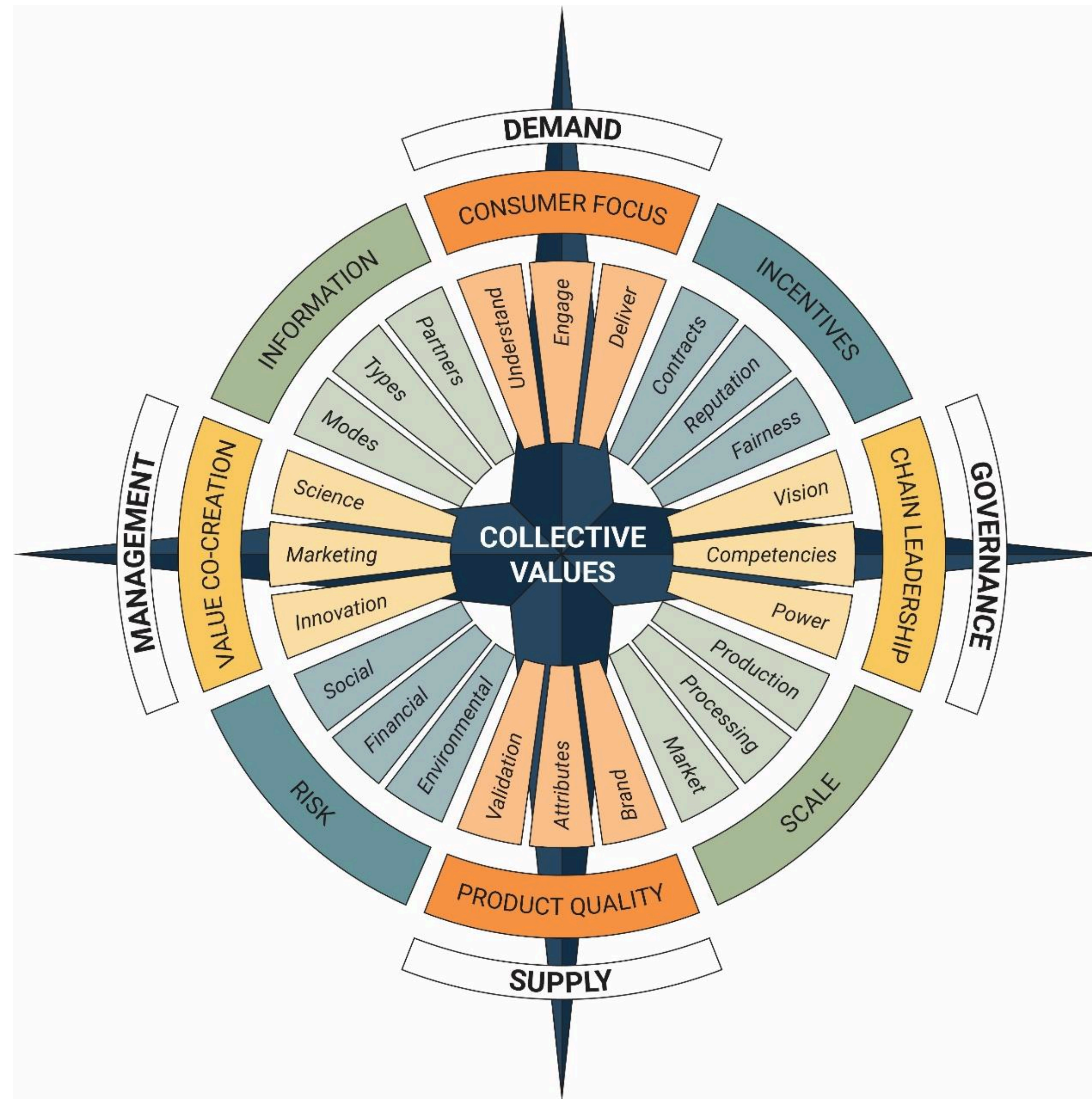
Our Land and Water has engaged [Vincent Heeringa](#) to create a specialist website and campaign to promote the findings of this research programme. The campaign is called [The Value Project](#).

The Agribusiness and Economics Research Unit (AERU) at Lincoln University is publishing findings from the research on its [website](#).

The AERU and [Scion](#) are drawing on their networks to spread knowledge of the research.

The research team are preparing further science outputs and on-line resources based on this work.





**Appendix:
The Our Land and Water
Research Programme**



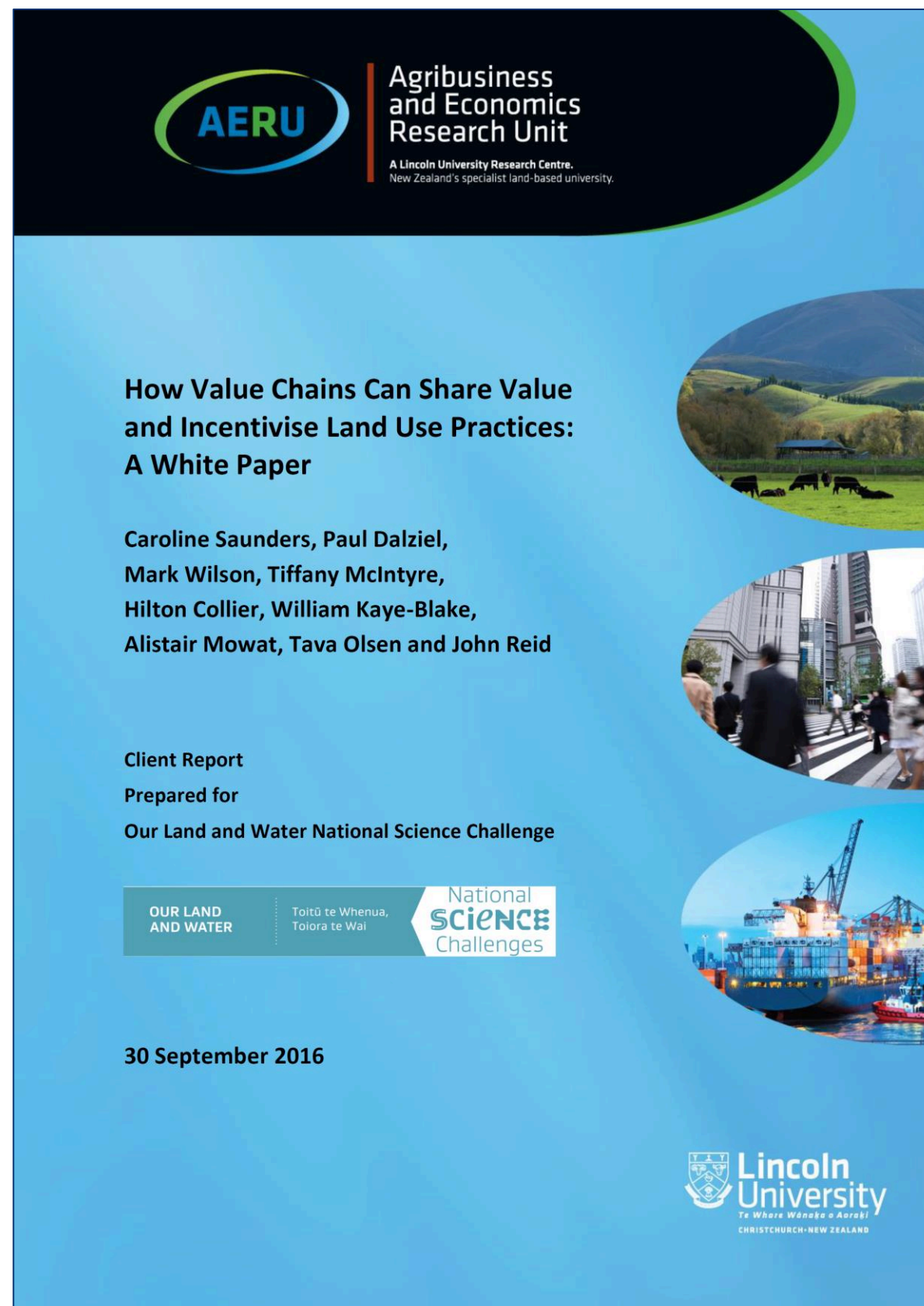
The Research Programme: Step 1

The research programme has been funded by the [Our Land and Water](#) National Science Challenge.

It began in 2016 with a [White Paper](#) summarising knowledge on how value chains can share value and incentivise land-use practices.

It provided evidence that collaborative value chains targeted at premium consumer segments can increase returns to New Zealand producers, processors and manufacturers.

This is achieved by profiling attributes of the country's production systems that consumers value.



The Research Programme: Step 2

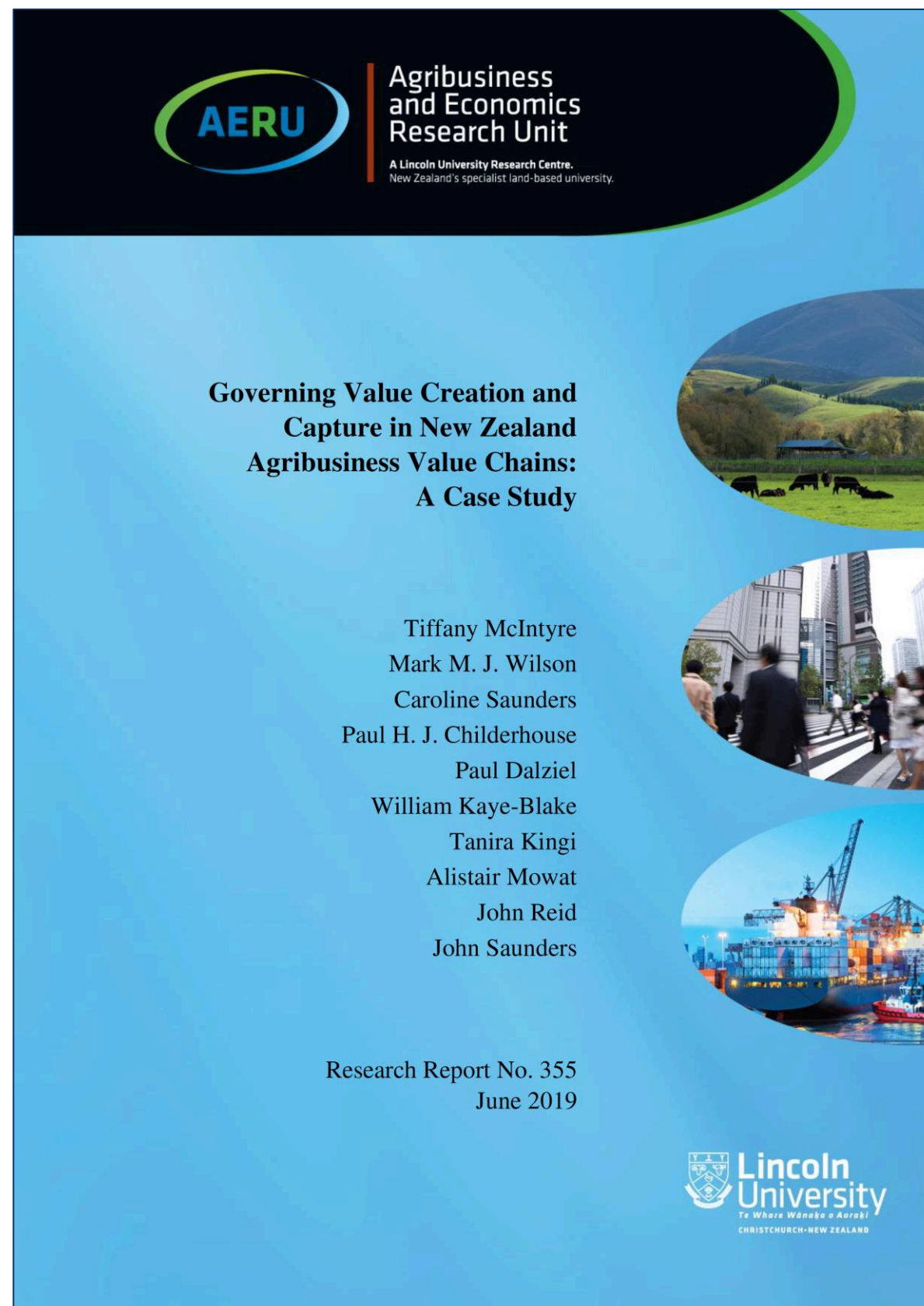
The second phase ran between January 2017 and June 2019. It was called Integrating Value Chains.

There is a dedicated [page](#) on the Our Land and Water website.

The research team examined five existing value chains to identify characteristics associated with a successful chain.

This project also provided tailored research for Beef+Lamb NZ, as it developed its New Zealand red meat profile for international markets, [Taste Pure Nature](#).

The project delivered a situational analysis [report](#) for the Primary Sector Council as the Council prepared its [Fit for a Better World](#) vision.



The Research Programme: Step 3

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GEOGRAPHY MATTERS FOR SMALL ADVANCED ECONOMIES: IMPLICATIONS FOR ECONOMIC STRATEGY

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ABSTRACT: New Zealand is a small advanced economy in the South Pacific Ocean. Policy advisors often compare New Zealand's economic performance with those of other successful small advanced economies. These comparisons generally recognise that New Zealand is uniquely distant from the world's largest and highest-income markets. Nevertheless, it has become commonplace for policy advisors to say "Geography is not destiny: New Zealand can do better". This paper draws on standard regional economic development analysis to conclude that geography matters for economic strategies. It draws on endogenous growth theory to explain how the properties of knowledge mean that knowledge can sustain increasing returns to scale and hence productivity growth. The paper draws on that theory to introduce a mission-oriented innovation research programme that has contributed to creating and capturing greater value from New Zealand food and fibre exports.

KEYWORDS: Aggregate productivity, endogenous growth, geographical remoteness, knowledge economics, small advanced economies.

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The final phase was called Rewarding Sustainable Practices. It ran between August 2019 and June 2022.

Again a dedicated [page](#) exists on the Our Land and Water website.

The research team worked with four private sector enterprises who were engaged in creating a new value chain for a land-based product sourced from New Zealand.

The purpose was to test the list of characteristics of successful value chains from Step 2, and to explore any further characteristics that might have been missed.

The research team is grateful for all our partners who worked with us on developing this new knowledge.

Six Webpages for Further Information and Updates

The Our Land and Water National Science Challenge and the AERU at Lincoln University have created webpages devoted to the research presented in this Research Briefing.

<https://ourlandandwater.nz/the-value-project/>

<https://ourlandandwater.nz/incentives-for-change/rewarding-sustainable-practices/>

<https://ourlandandwater.nz/incentives-for-change/integrating-value-chains/>

<https://www.aeru.co.nz/data>

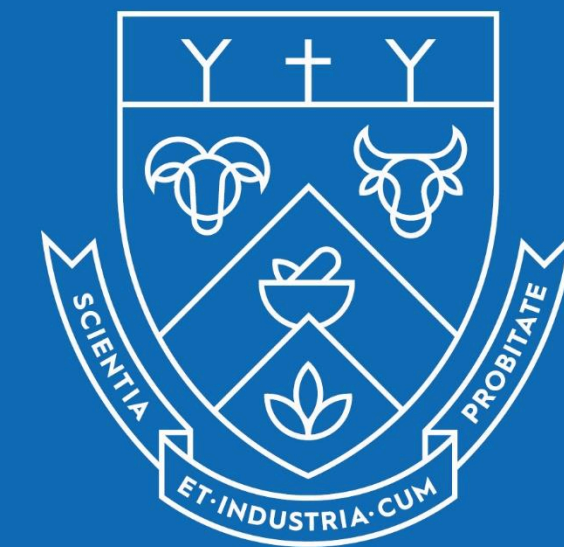
<https://www.aeru.co.nz/projects/rsp>

<https://www.aeru.co.nz/projects/ivc>



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Note: All hyperlinks in this document were valid on its publication date.
The AERU apologises for links that no longer operate at the time of reading.

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