



Agribusiness and Economics Research Unit

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Global drivers of the agricultural sector on land and water

Caroline Saunders and Paul Dalziel with
Peter Tait, Sini Miller, Meike Guenther,
John Saunders, Paul Rutherford and
Timothy Driver



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Introduction

- Importance of agriculture
- What are markets want
- Our land and water national science challenge



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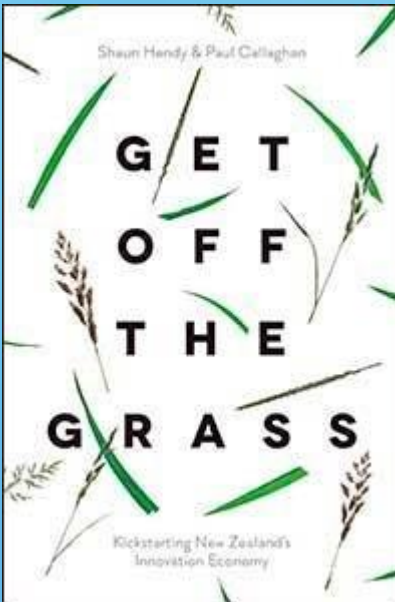
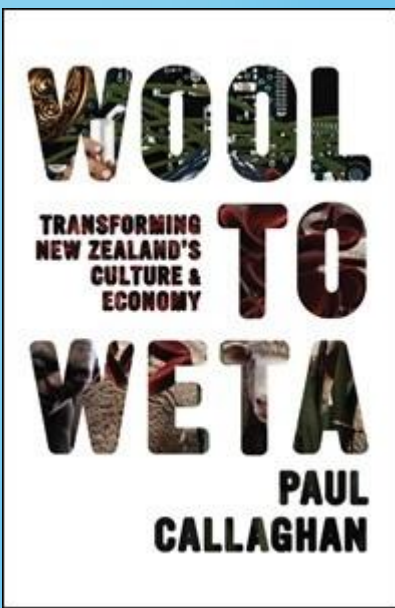
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The Future of the Sector

Two books by Sir Paul Callaghan (2009) and by Professor Shaun Hendy with Callaghan (2013) have recently expressed the influential view that New Zealand's future economic prosperity requires it to move away from its strengths in the land-based sectors.



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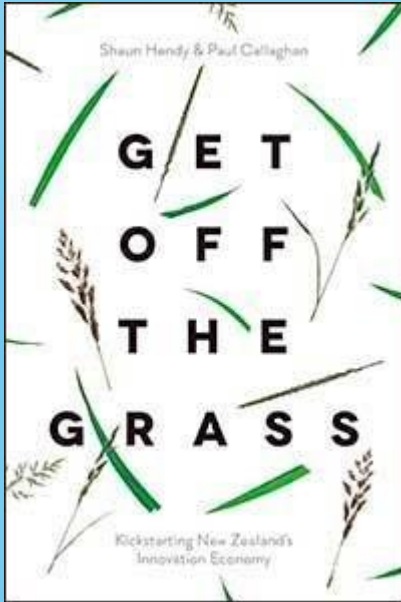
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The Future of the Sector

New Zealand must take “deliberate steps to break economic dependence on the primary sector, in particular by investing in science and technology”.

(Hendy and Callaghan, 2013, pp. 15-16).

As if the primary sector’s development has not relied on investment in science and technology!

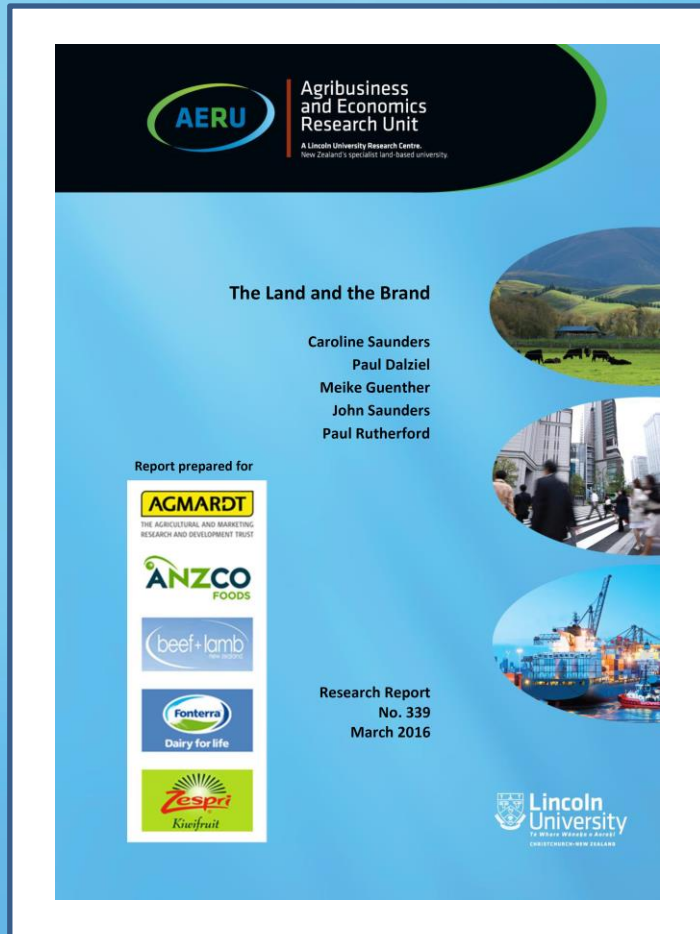


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The Land and the Brand Report



The report was written during 2015 and launched with the support of the Advisory Board at the Ministry for Primary Industries on 15 March 2016.

I am grateful to my four AERU co-authors: Professor Paul Dalziel, Meike Guenther, John Saunders and Paul Rutherford.

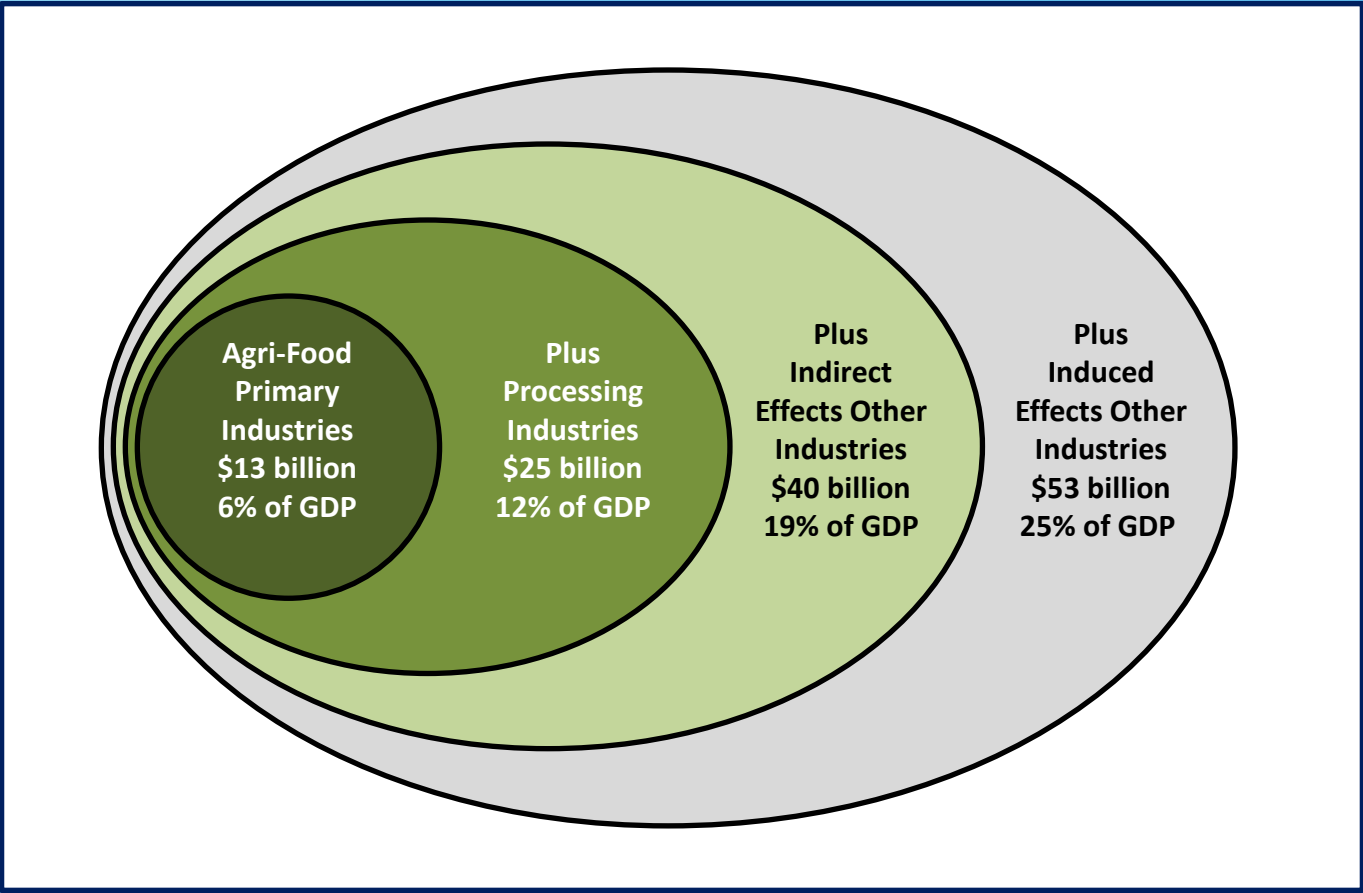


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Figure 2-7: Contributions of the Agri-Food Sector to Gross Domestic Product, 2011/12



Introduction to *Maximising Export Returns*



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

Source: Archives New Zealand

- New Zealand’s early economic prosperity grew out of exporting three commodities to the United Kingdom:
 - Meat
 - Dairy
 - Wool



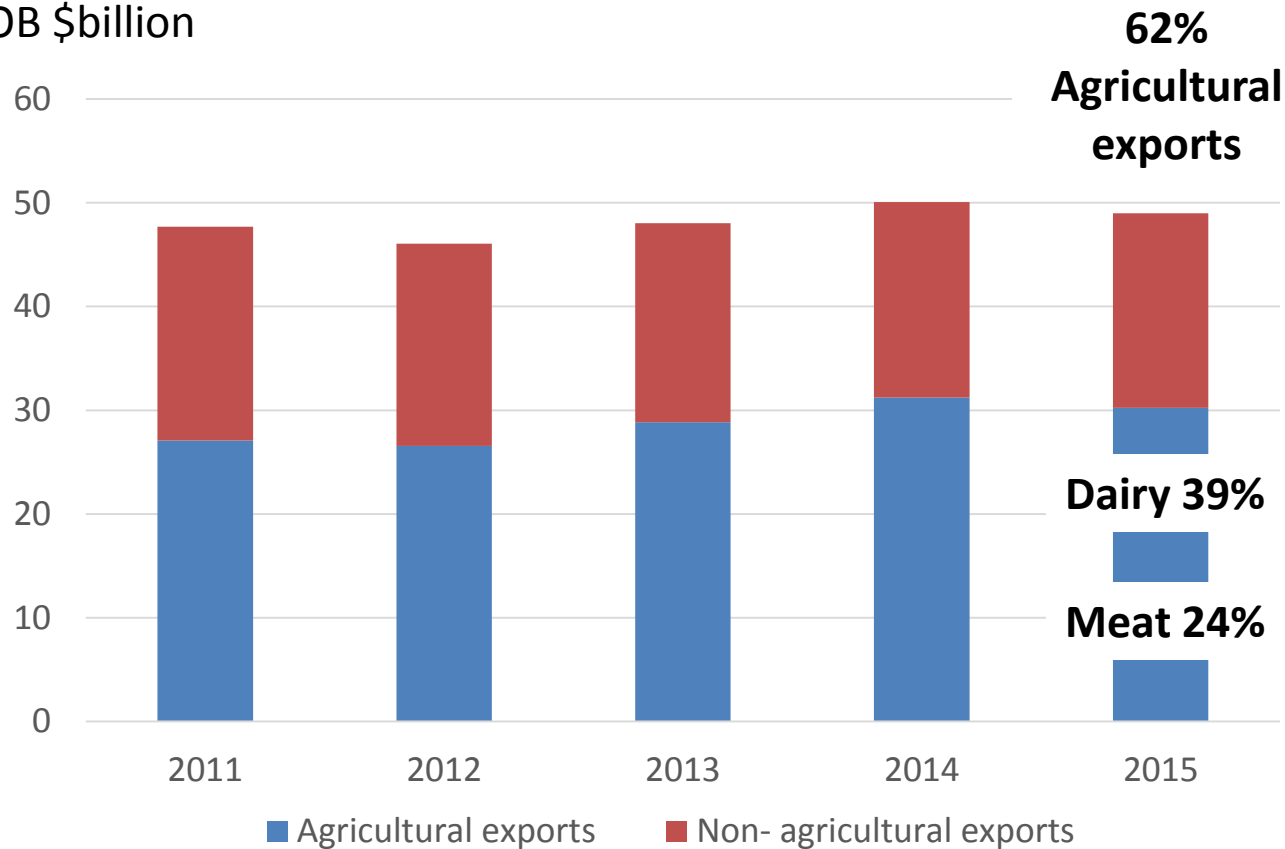
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Total NZ Agricultural Exports

FOB \$billion



StatsNZ (2015) Global New Zealand YE June



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Vision for the Research Programme

New Zealand's land-based export products should be marketed to international consumers as more valuable than basic **commodities**.

This means selling to our international markets that New Zealand products offer **more** to consumers than being a cheap source of nutrition, fabrics or wood.



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Credence Attributes

In the language of marketing, qualities such as cultural history, animal welfare, environmental quality, and safe and healthy food are called **credence attributes**.

A credence attribute is something consumers are willing to pay for, but have to **trust** that it is present because they can't see, taste or feel it for themselves.



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The research journey

A common reaction when the AERU began our work on this question was that New Zealand does not need to market credence attributes because our future is to supply an expanding middle class in China and India.

So in 2012 the AERU funded pilot surveys of middle to high income consumers in three countries: China, India and the UK.



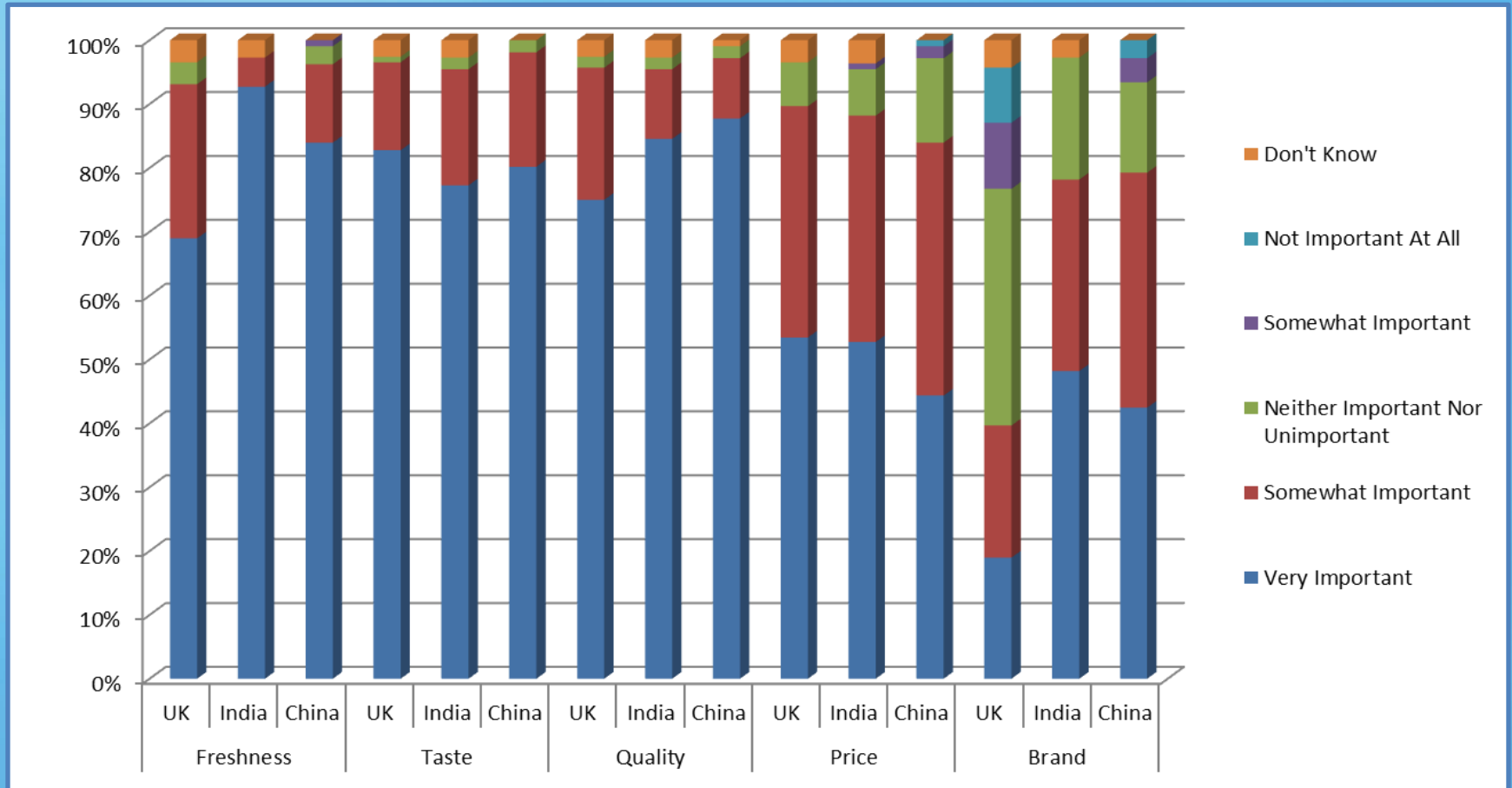
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Importance of NZ Food Attributes



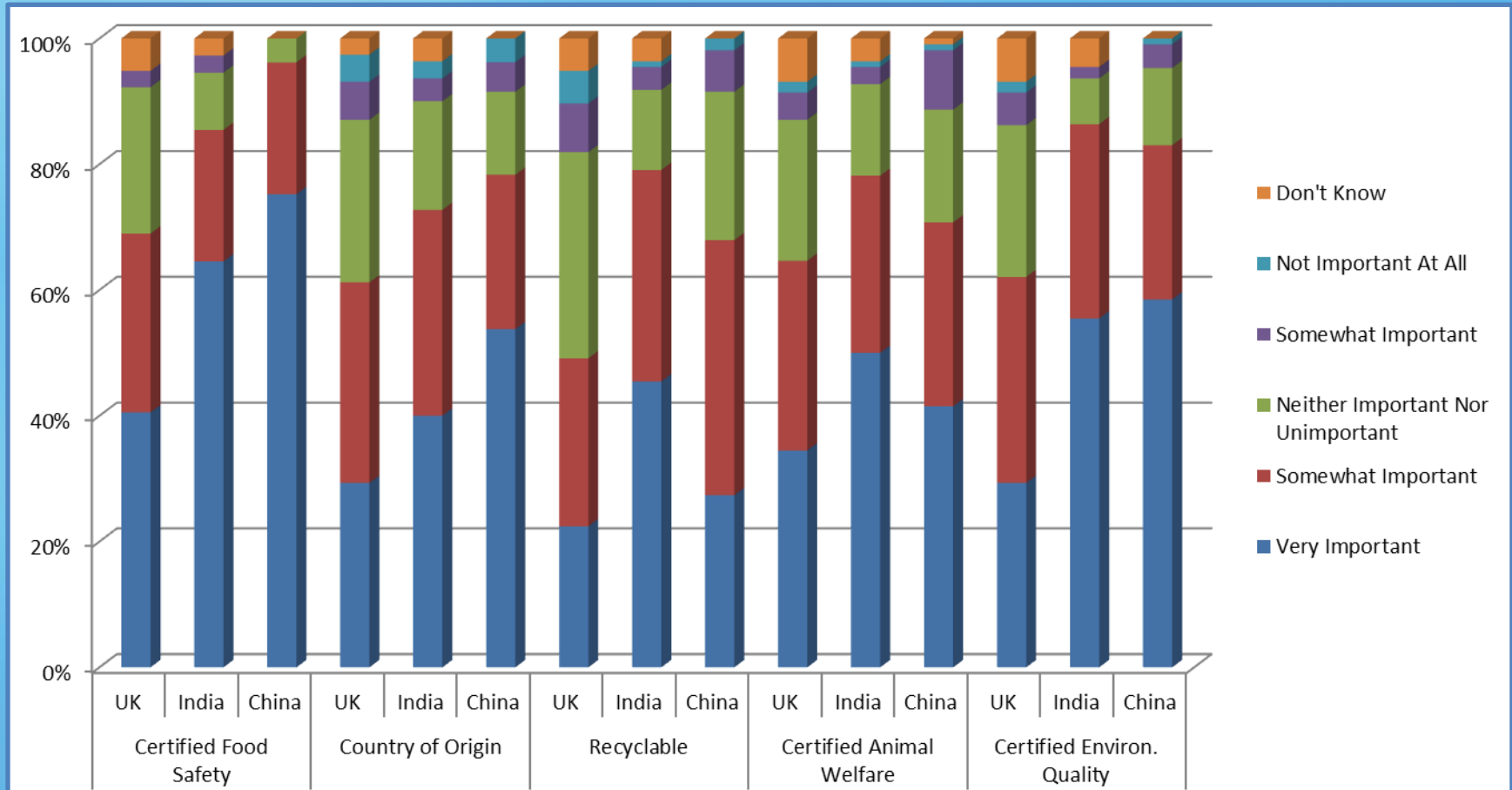
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Importance of NZ Food Attributes



WTP for Attribute as Percentage of Product Price in China, India and the UK

	China		India		UK	
	Dairy	Lamb	Dairy	Lamb	Dairy	Lamb
Safety	74%	44%	73%	77%	16%	18%
Welfare	26%	13%	42%	41%	17%	22%
Water	16%	12%	19%	26%	3%	7%
GHG	25%	14%	38%	39%	7%	7%
Biodiversity	22%	15%	27%	42%	6%	6%
Foreign Origin	26%	10%	-20%	-	-4%	-5%
NZ Origin	49%	24%	10%	21%	3%	6%
Notes:	WTP derived using Krinsky and Robb method.					



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The Research Programme



Maximising Export Returns for New Zealand's Biological Industries

Research Update

Issue 2(2-3), June 2015

Halfway through the Project!

It has been a very busy time for the research team since our last Research Update at the end of last year. We are now halfway through the research programme and the last six months have seen: the publication of two more reports; the design and implementation of our major survey of 1,000 middle-to high-income consumers in each of five countries; and the start of our analysis of the survey responses. Two members of our research team graduated with research degrees in April, one of whom won a major Australasian prize for her PhD thesis, presented in February. Caroline Saunders and Paul Dakziel have also been heavily involved in the National Science Challenge on *Our Land and Water*, and were responsible for writing an Expression of Interest for one of its three themes, focused on obtaining greater value from overseas markets. This Research Update gives a brief summary of these developments.

The MER Research Reports

The research programme has now produced three reports, all of which can be downloaded without charge at our dedicated website: www.lincoln.ac.nz/aeru/mer.

1. *Consumer behaviour and trends for credence attributes in key markets and a review of how these may be communicated.* AERU Research Report No. 332, July 2014.
2. *Communicating New Zealand's credence attributes to international consumers.* AERU Research Report No. 334, January 2015.
3. *Consumer attitudes to New Zealand food product attributes and technology use in key international markets.* AERU Research Report No. 333, May 2015.



The Ministry of Business, Innovation and Employment funded the AERU to research how New Zealand's biological industries can use their credence attributes to maximise export returns; see www.lincoln.ac.nz/aeru/mer.



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Research Questions

- What do different international markets want and what are they willing to pay?
- How can this value be captured by New Zealand producers?
- How can this new knowledge empower people, in New Zealand and overseas, to improve their wellbeing?



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Consumer Surveys:

UK, Japan, China, Indonesia and India

- Quota sample with minimum of 1,000 middle and upper income consumers in each country who shop regularly and have heard of New Zealand.
- Choice experiment with these respondents to evaluate consumers Willingness to Pay (WTP) for attributes in food and beverages.



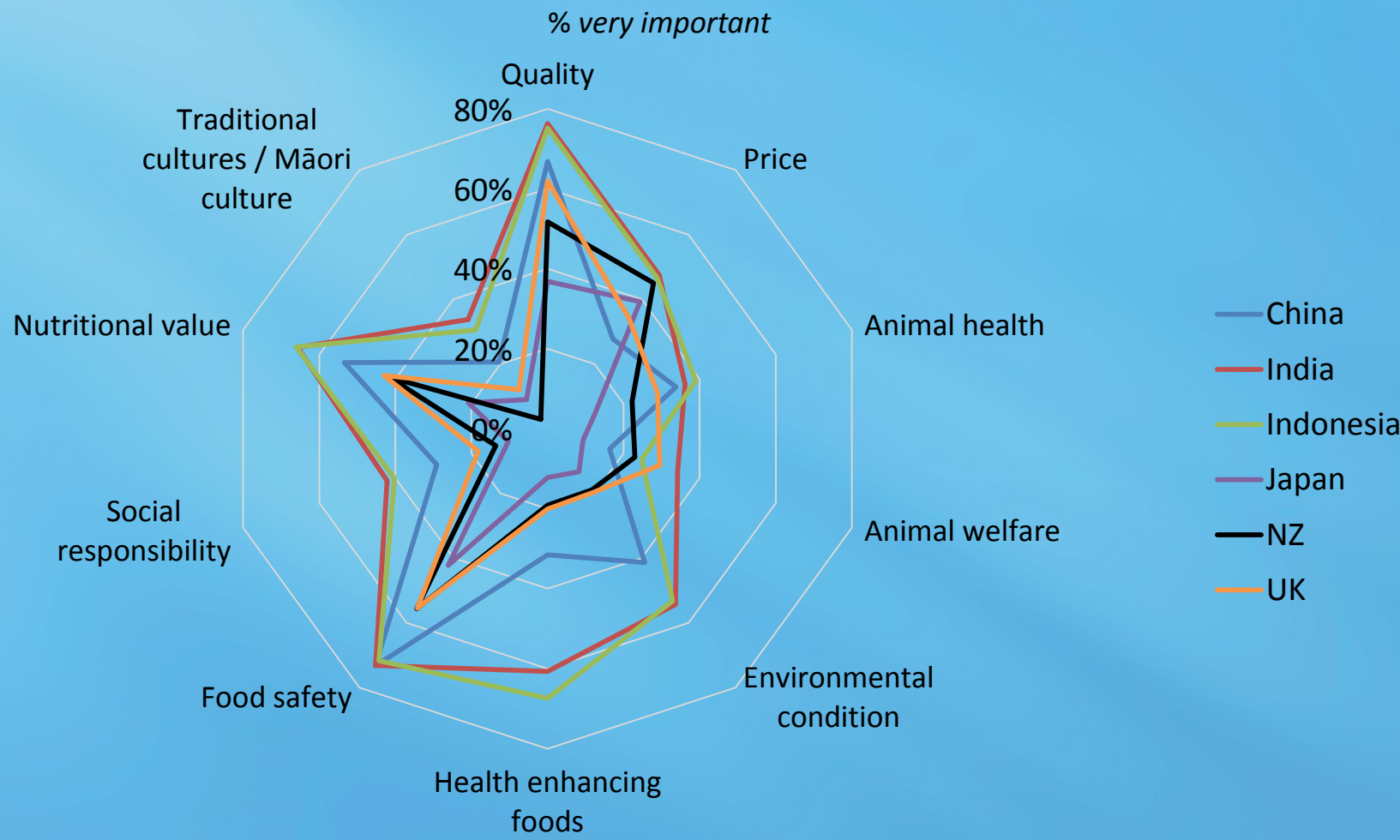
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MER – and New Zealand



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Importance of factors associated with food safety in supply chain

- Freshness, Hygiene, Use by date most important for all countries
- Reduced use of pesticides; traceability; and environmental condition important for all but especially developing countries



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Importance of factors associated with environmental condition in supply chain

- Air and water quality most important
- Japan: recycling
- India, Indonesia and China: organic production
- Protecting endangered species for the UK and Indonesia
- Wilderness important in China but not the other countries



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Importance of factors associated with animal welfare & health in supply chain

- Free of disease; good quality of life, etc...

But also:

- China and India natural conditions
- China mainly pasture fed
- Relatively low: free range



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Importance of factors associated with health enhancing foods

- Differs across countries
- Digestive health one of the most important
- Child and baby health especially in developing countries
- Heart and cholesterol health especially in UK and Indonesia
- Low are weight management in developing countries and mobility for all



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Importance of factors associated with social responsibility in supply chain

- Workplace safety and good working conditions ranked most important
- Fair wages especially in India, Indonesia and Japan
- Least important is freedom to join union
- Local food ranked relatively low except in Japan



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The importance of factors associated with the role of traditional cultures in supply chain

- Care for future generations and connection with the natural environment most important
- Equity and fairness was most important for the UK and second for China and third for Indonesia and Japan
- Family business lowest for all countries
- Indigenous rights high in the UK especially when compared to other countries



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Digital media & smart technology use

Survey questions on consumer attitudes and behaviours towards the use of digital media and smart technology in information gathering and purchasing of food and beverages.



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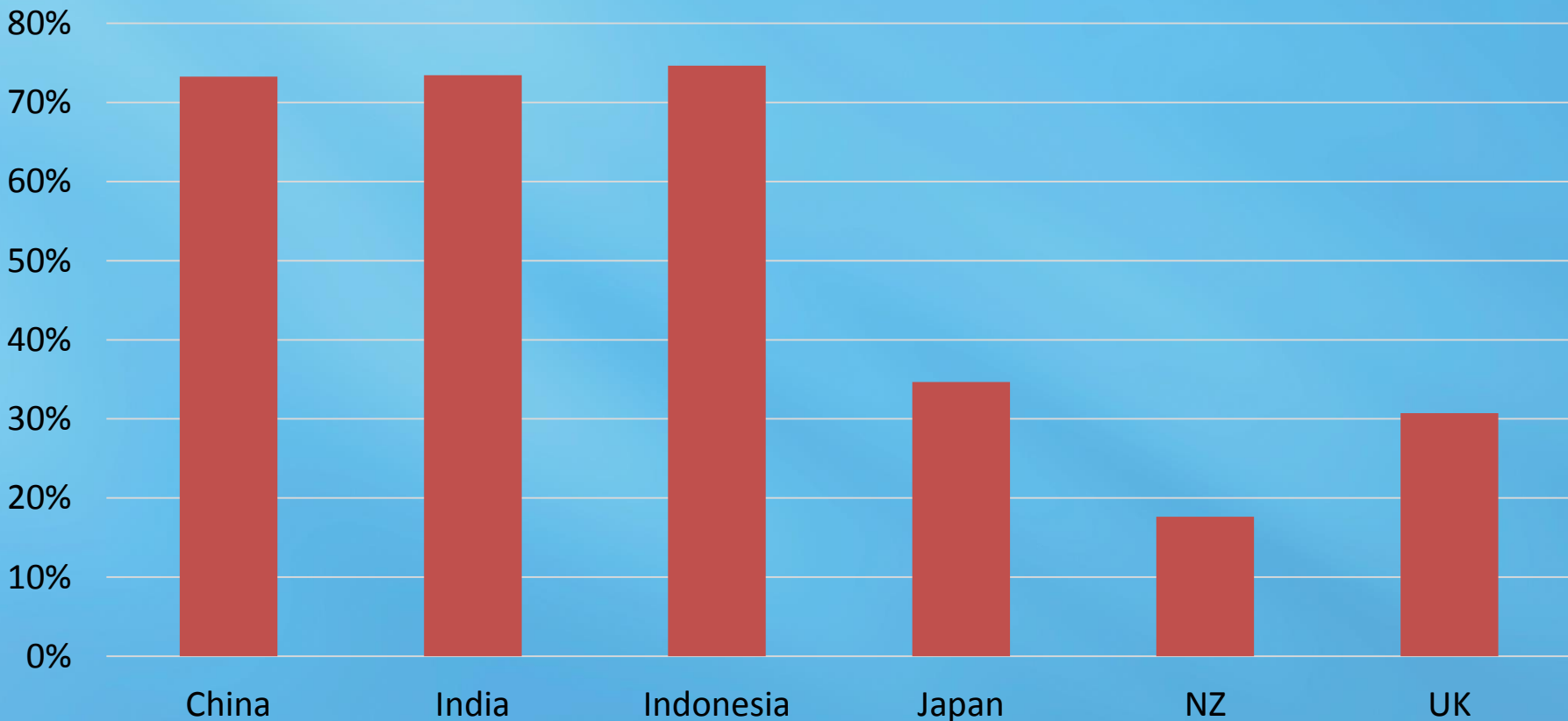
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MER – and New Zealand

Have you ever used a mobile app to find out more about a food or beverage product?



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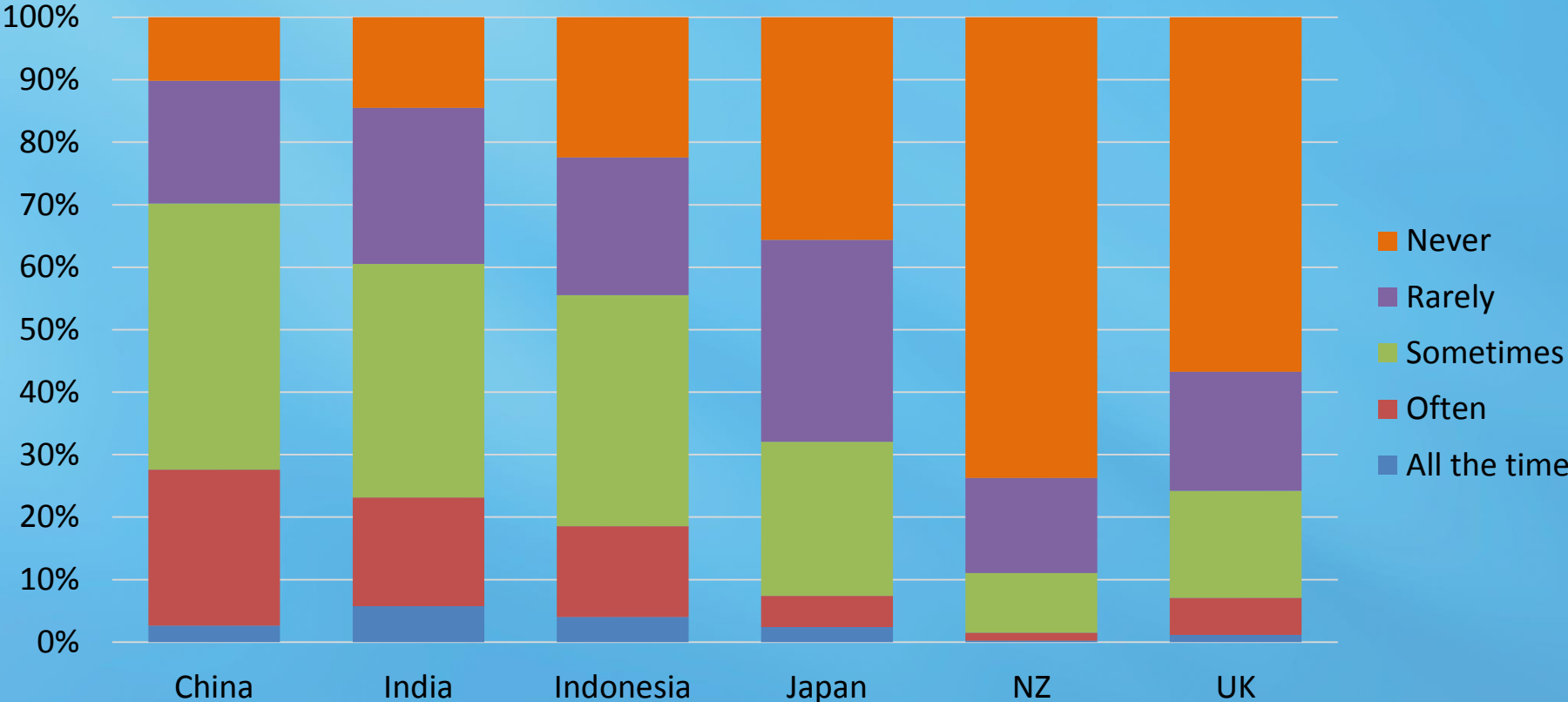
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Do you use your mobile device to purchase food and beverages?



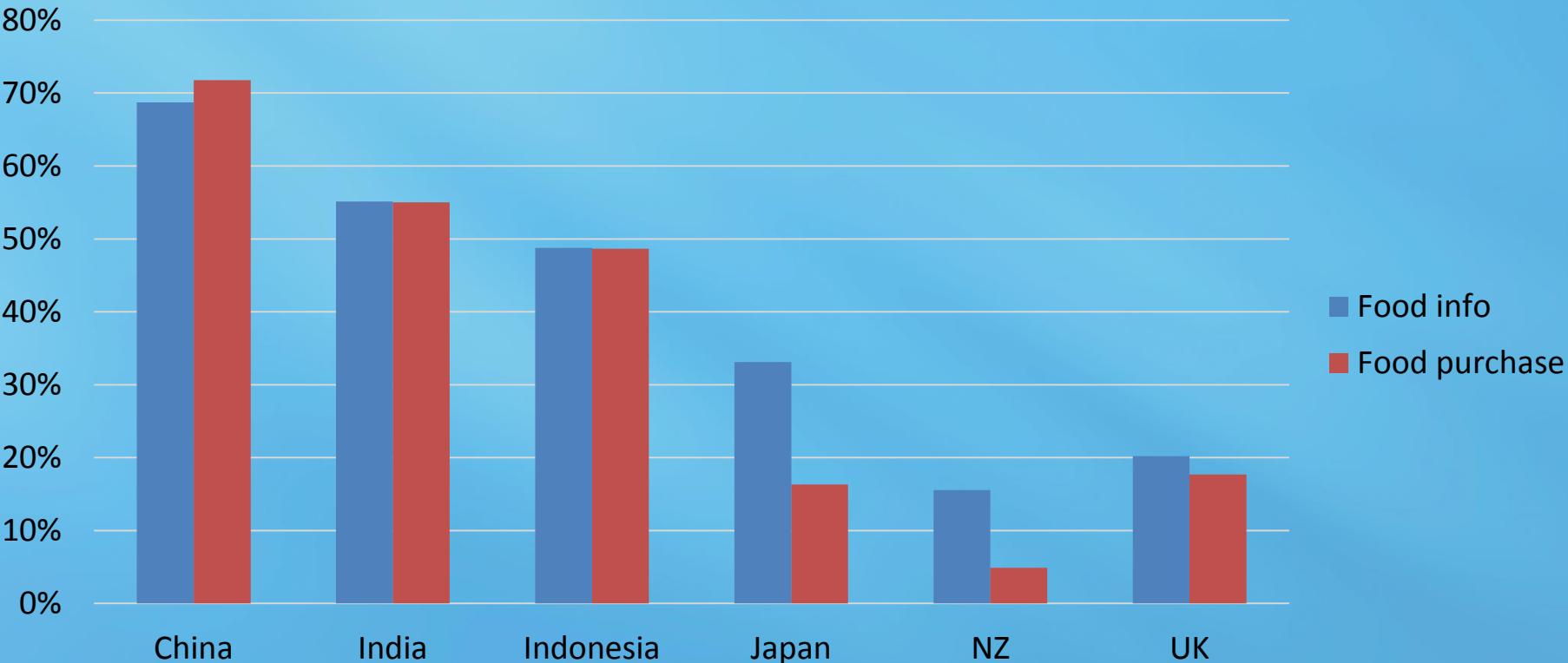
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MER – and New Zealand

Have you ever used your mobile device in conjunction with barcodes and/or QR codes for finding information about and/or purchasing food and beverages?



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Maximising Export Returns

- The MER Data Portal is now on-line, and can be accessed at www.lincoln.ac.nz/aeru/mer.
- It contains all of the research results for our consumer studies in China, India, Indonesia, Japan and the UK.



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Maximising Export Returns

AERU

China



India



Indonesia



Japan



United Kingdom



Qualities

Digital

View of NZ

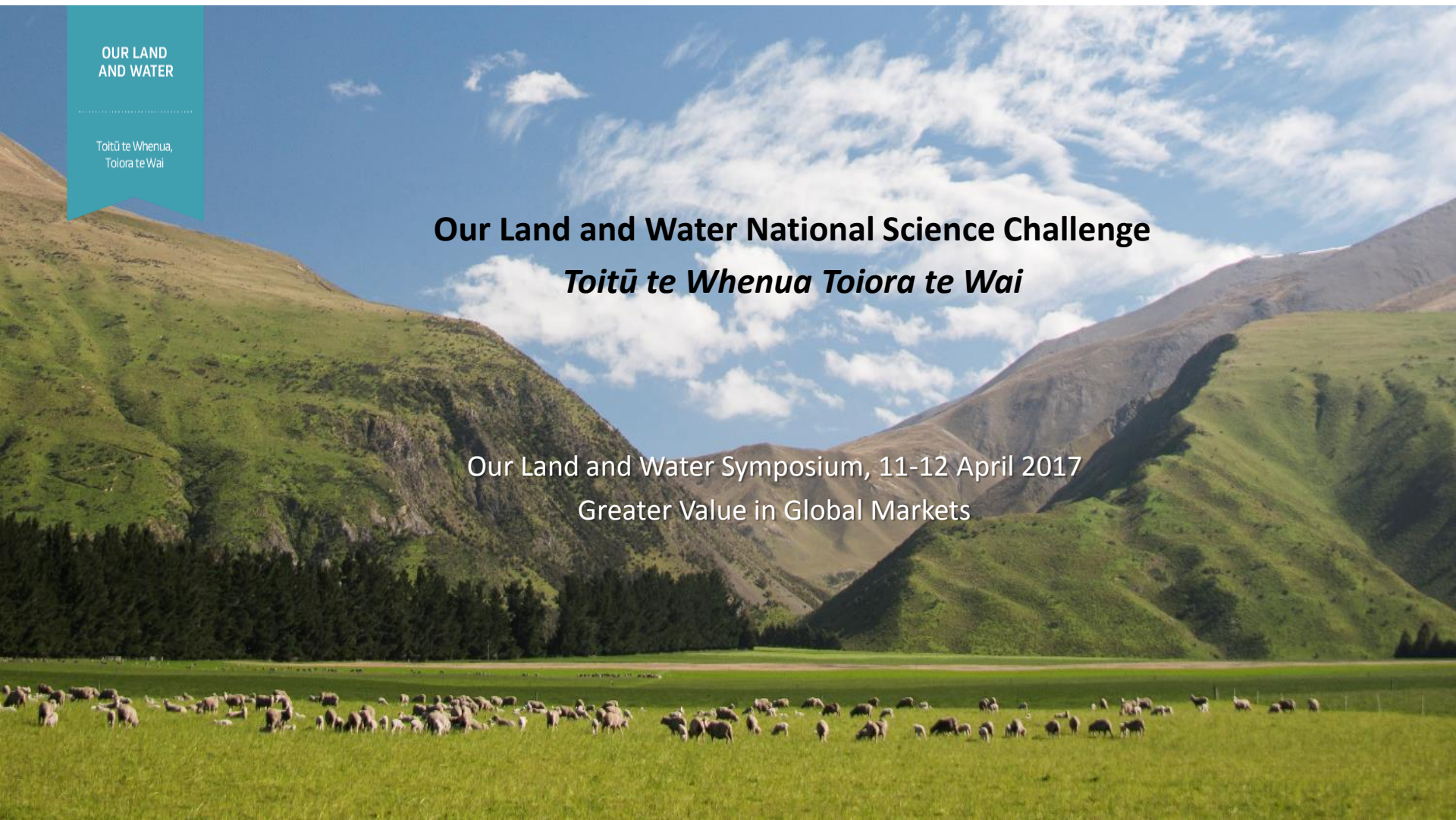
How to
use this
tool

OUR LAND
AND WATER

Toitū te Whenua,
Toiora te Wai

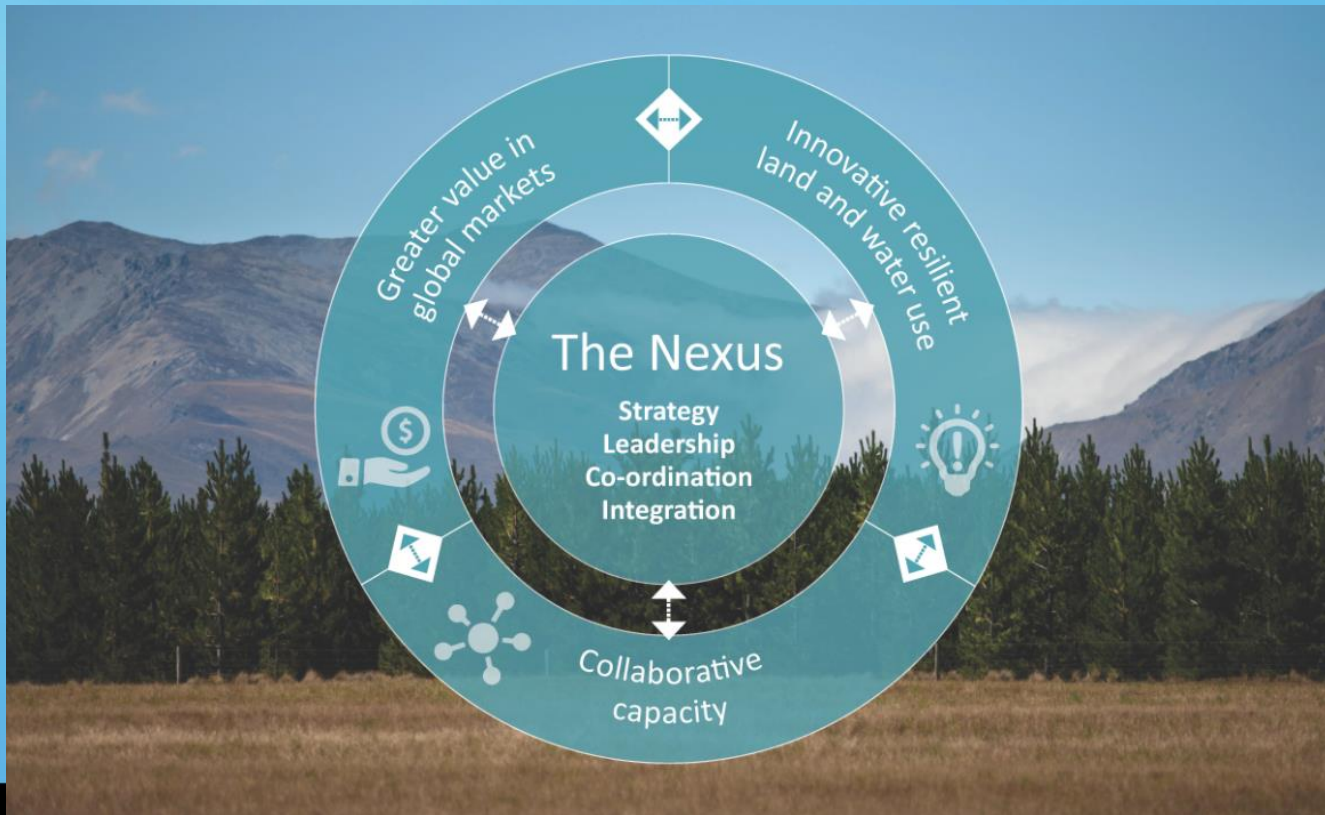
Our Land and Water National Science Challenge
Toitū te Whenua Toiora te Wai

Our Land and Water Symposium, 11-12 April 2017
Greater Value in Global Markets



How our research is structured

Three key themes, all interconnected with The Nexus



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Challenge Mission

“To enhance primary sector production and productivity while maintaining and improving our land and water quality for future generations.”



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Challenge Mission

“To enhance primary sector production and productivity while maintaining and improving our land and water quality for future generations.”

Theme 1 is exploring whether New Zealand producers and processors can capture value in international markets because of this.



We are not alone in this vision...



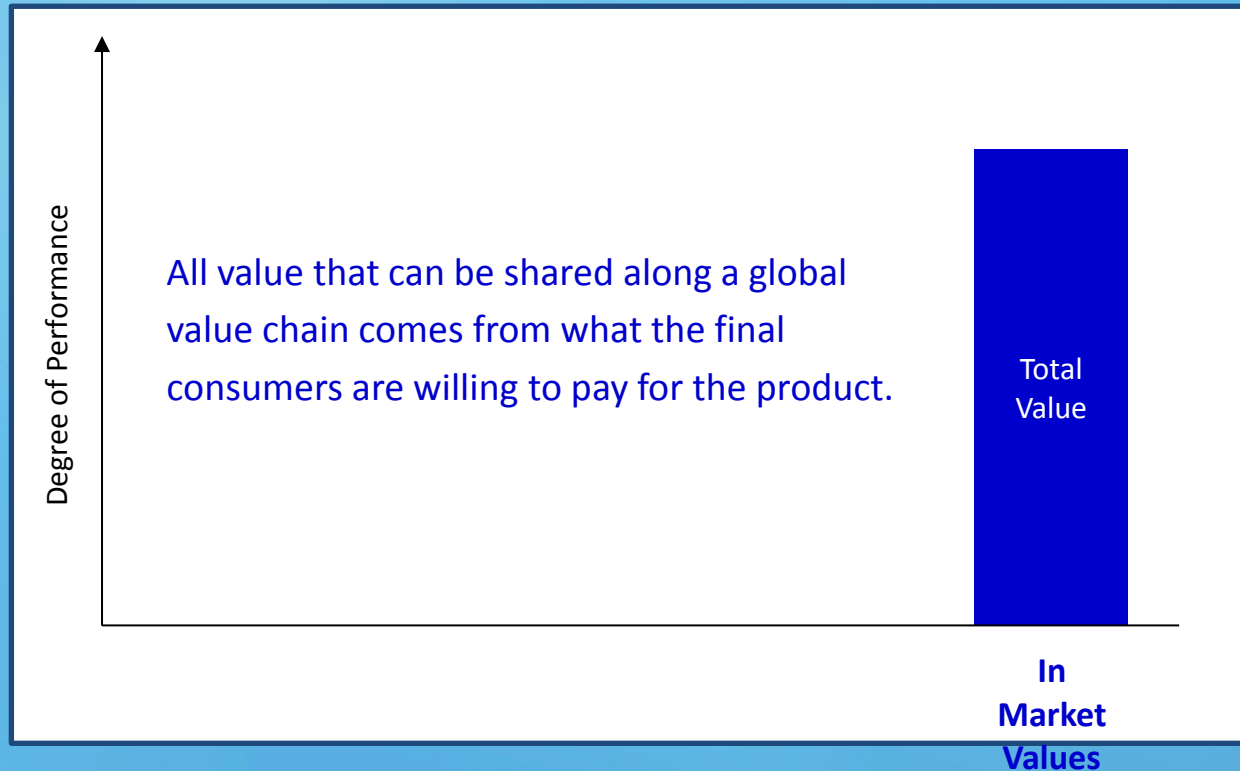
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Capturing Global Value



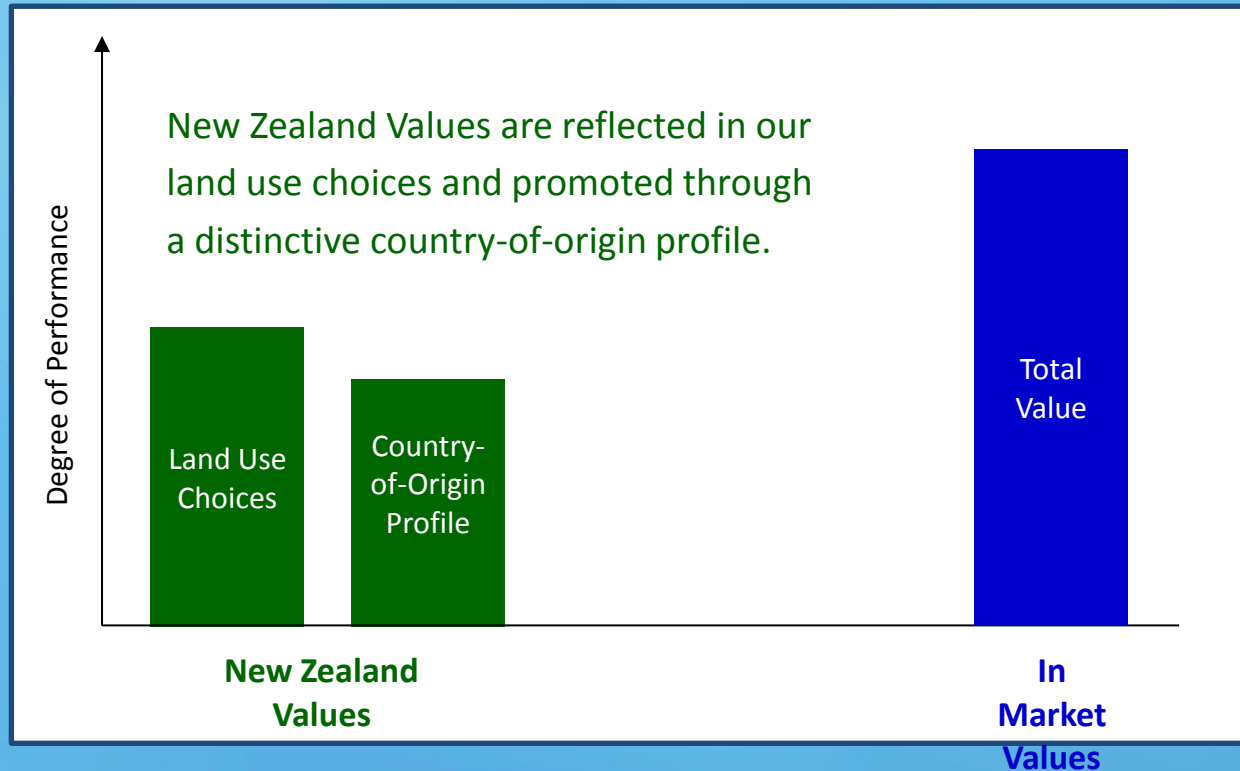
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Capturing Global Value



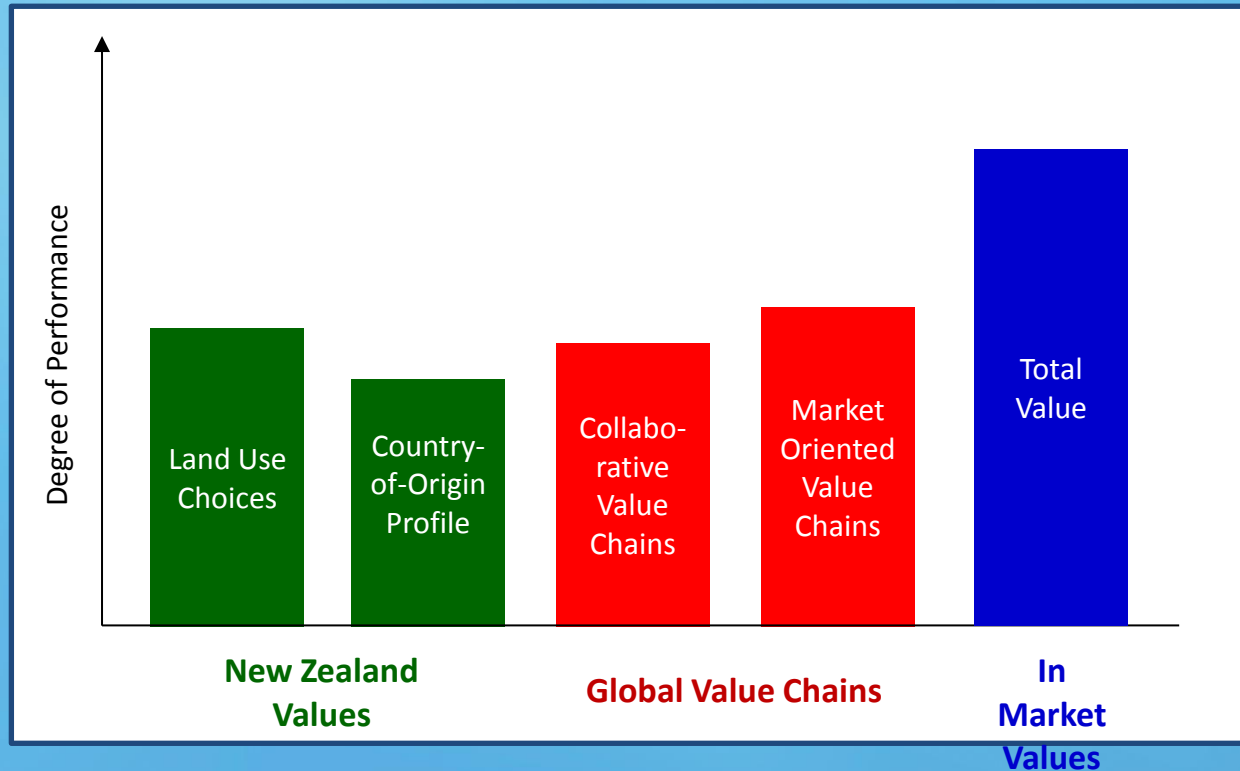
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