

OUR LAND AND WATER
Toitū te Whenua,
Toiora te Wai

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

Next Generation Systems
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AgResearch

Te Waihora Living Lake Symposium, 9-10 November 2017, Lincoln University

The image is a landscape photograph of a valley with green hills and a herd of sheep in the foreground. The text is overlaid on the image.

Key messages

- Need for **more value** and **lower** environmental **footprint**
- **Beyond** business-as-usual
- NGS; **beyond** production and profit focus
- which systems? - **business** decisions
- Science **supporting innovation** ; reducing risk



coastal spring lamb®
NATURALLY SEASONED BY THE SEA

SOUTH PACIFIC SEEDS





OUR PRODUCTS

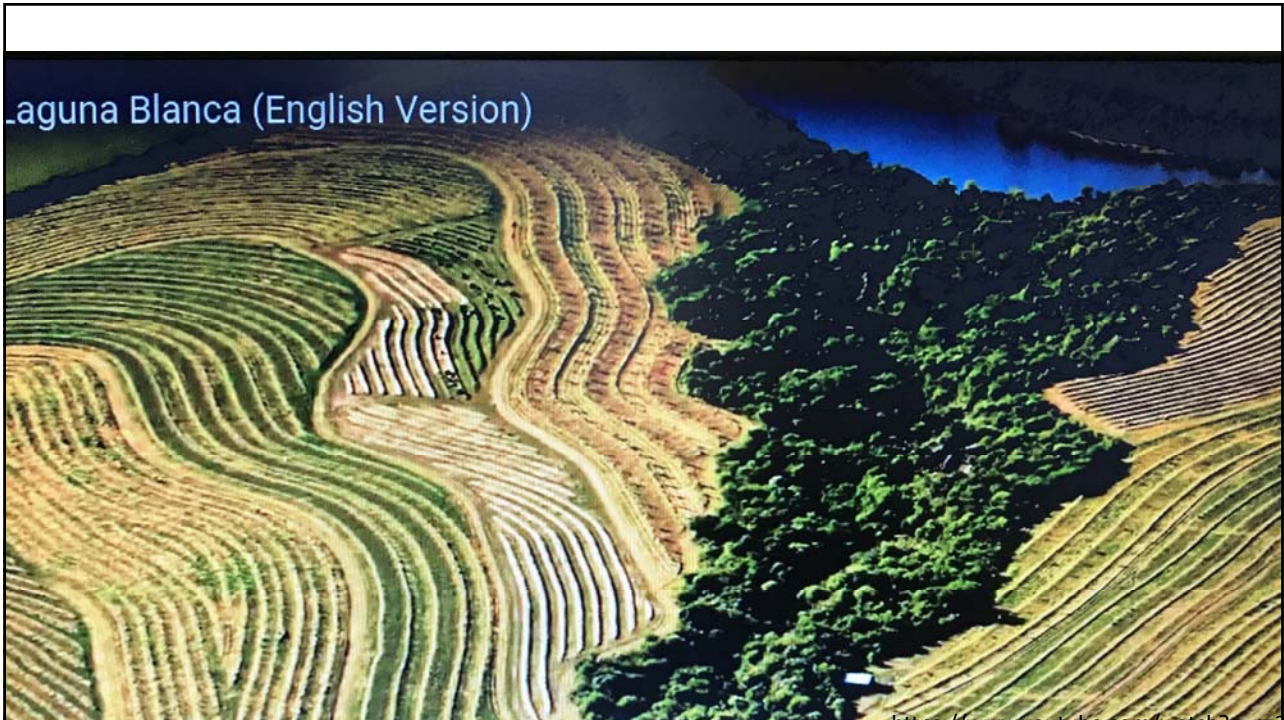


 Chilled/Short Shelf Life Award
NZTE Export Innovation Award

 <p>BABYLEAF</p>	 <p>BEANS</p>	 <p>BEETROOT</p>
 <p>BROCCOLI</p>	 <p>BRUSSELS SPROUTS</p>	 <p>CABBAGE</p>
 <p>CAPSICUM - COVERED</p>	 <p>CAPSICUM - FIELD</p>	 <p>CARROT</p>



Source; www.costalspringlamb.co.nz, www.spsnz.com, www.comvita.co.nz



Sources & Flows

The Problem

- Water Quality needs to improve
- We know the contaminants are coming from the land

- So **what** do we need to do on the land and **where**?

– Within a catchment

- Sources = what to target
- Flows = where to target

What and where
In catchment & in landscape



Next Generation Systems:

- new systems
- New technologies
- Transformational change

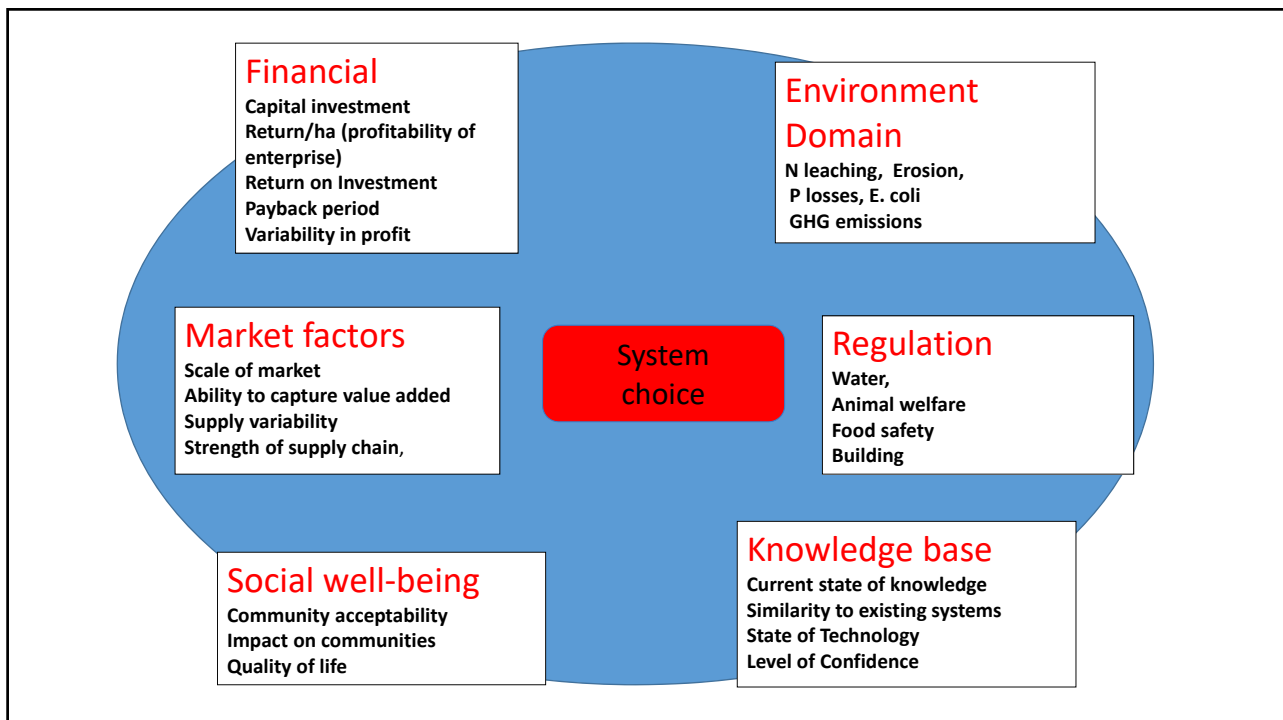


Why science in NGS

- Development, redesign, New technologies
- Science supporting innovation
- Business decision
- Which solutions have comparative advantage??



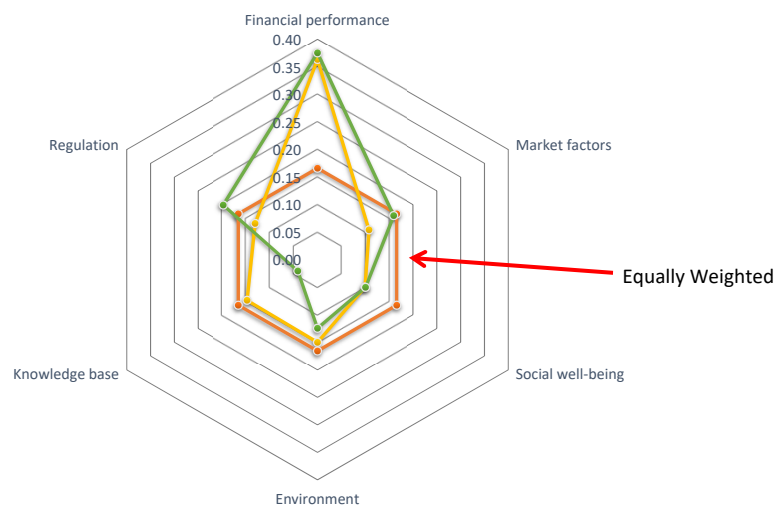
Which system?



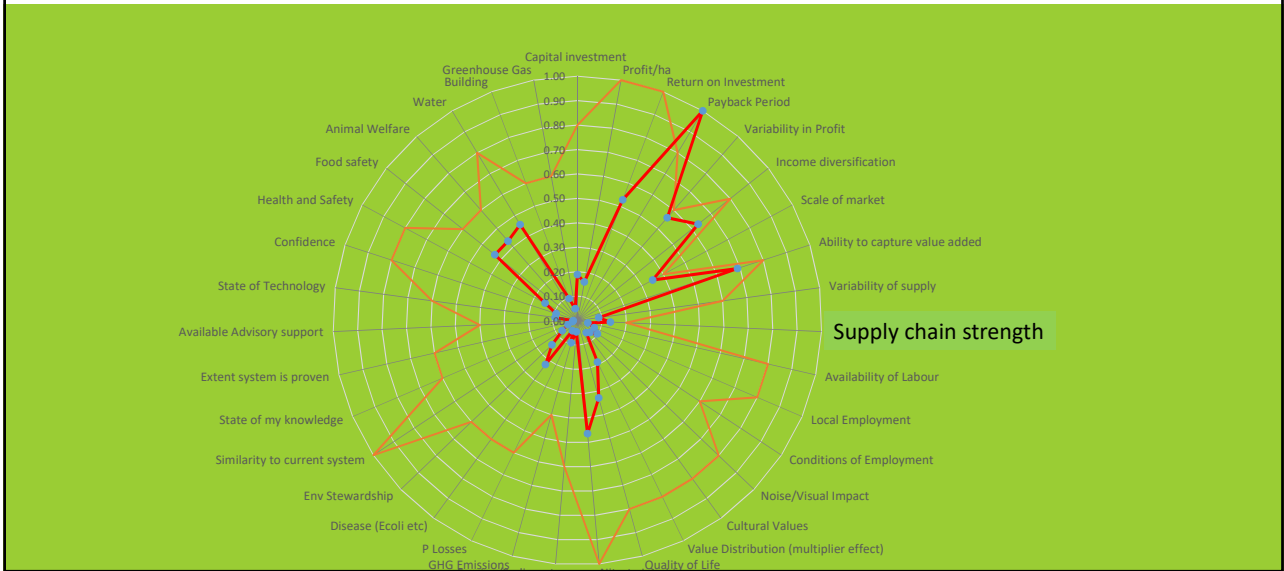
Case study-sheep milking



Weights at Domain Level



Weighting of each alternative under each criteria – sheep dairy example



Selection of Preferred Options

	Milking Sheep (Actual)	Dairy Goats	Blueberries	Specialty seeds
Int 1	3.69			
Int 2	3.77			
...	...			
...	...			
Score				





National
Science
Challenges

OUR LAND
AND WATER

Toi te Whenua,
Te ora te Wai

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