Farming for the Future &
National Farmers' Federation
Natural Capital Summit:

Quantifying the value of natural capital
for Australian agriculture

Farm Level Findings of the *Farming for the Future* Research

Dr Sue Ogilvy

Program Director, *Farming for the Future*

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A financially prosperous, climate-resilient and decarbonising agriculture sector for Australia.

National Farmers Federation

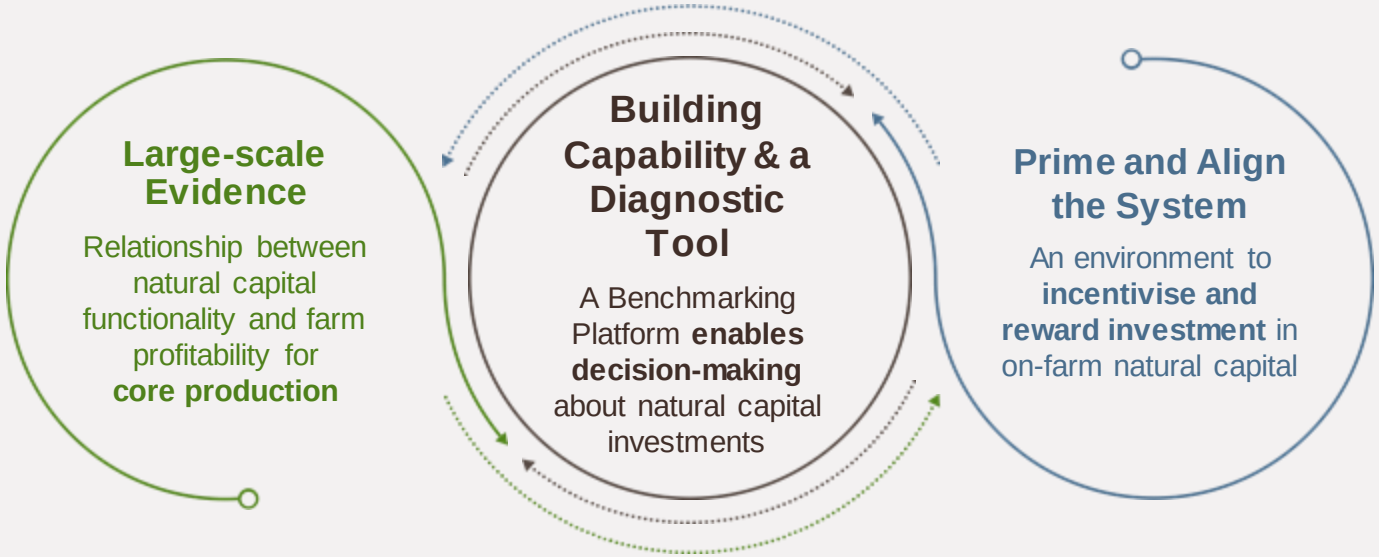
MACDOCH FOUNDATION

FRRR
Foundation for Rural Regional Renewal

What is it?

Farming for the Future seeks to build the business case for **producers** to improve natural capital on productive landscapes, at scale

How we'll achieve it



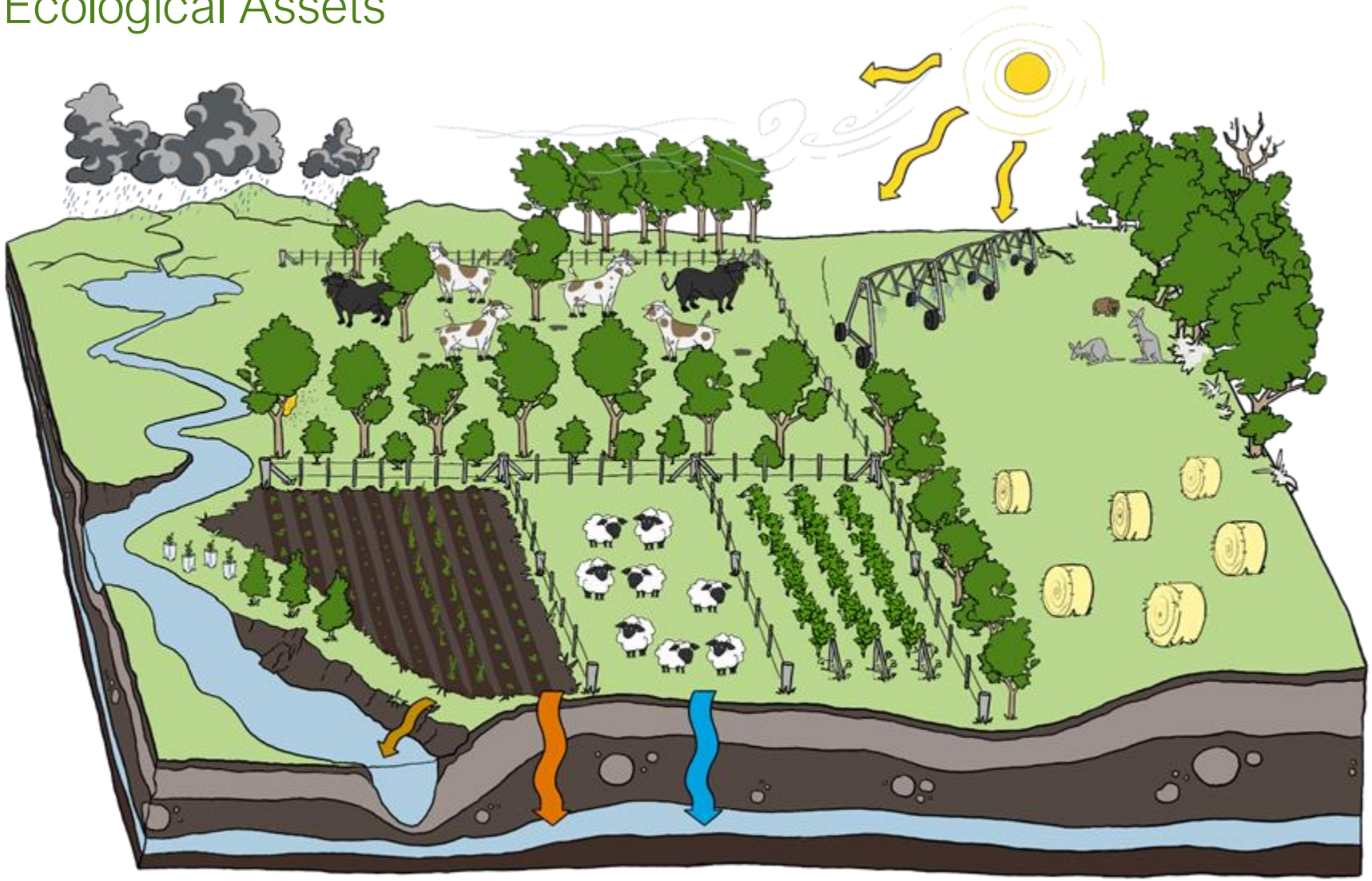
The outcome

Natural capital is **a factor of production** and part of **mainstream** farm management

The Impact

Less variability and **increased profitability in *core production***	**Improved natural capital condition** on productive landscapes	Resilient, transparent, and **responsible supply chains**	Agriculture is a **nature-based solution**	Govt and industry meet **environmental and other strategic goals**	A **just transition** for rural and regional producers	**Improved levels of prosperity and wellbeing** in rural communities

Natural Capital in Agriculture:
Biological & Ecological Assets



Landholder motivations

Rank the following potential benefits of natural capital in terms of how compelling you think they might be for encouraging farmers to improve natural capital

NC direct effect on farm performance

NC in commodity markets

NC markets

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Landholder motivations

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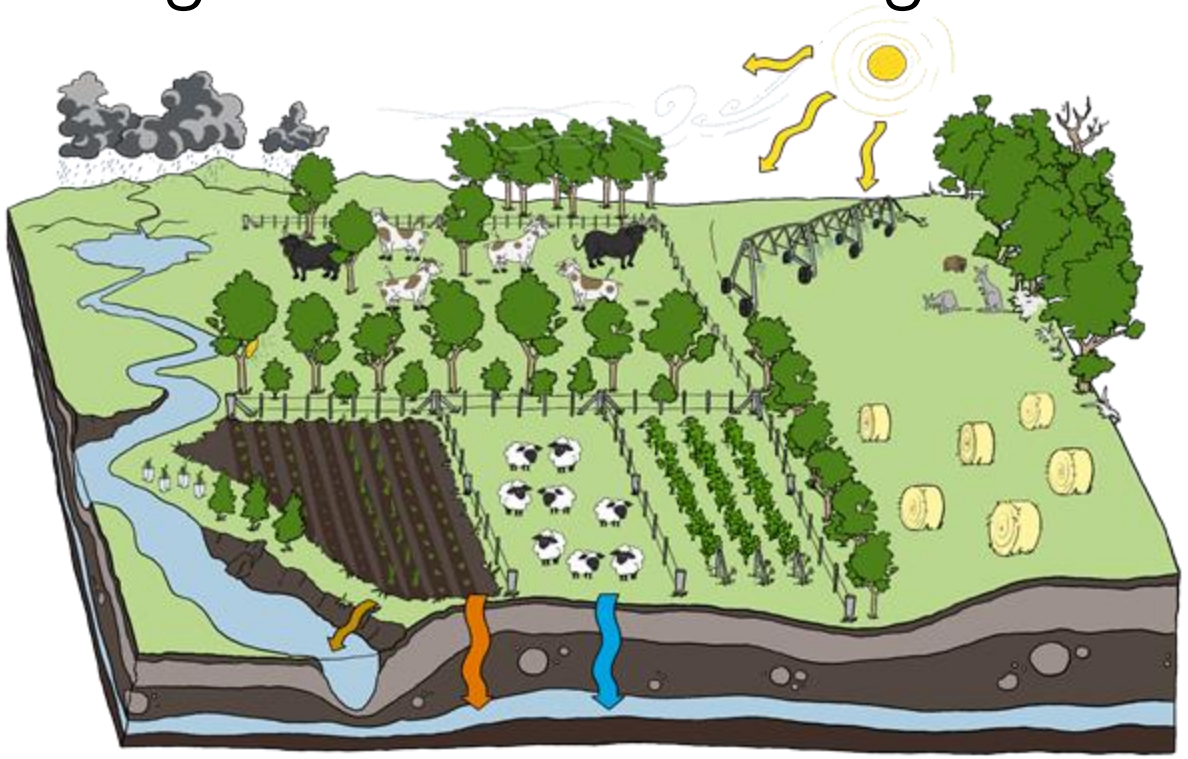
Farming for the Future: Large-scale Evidence

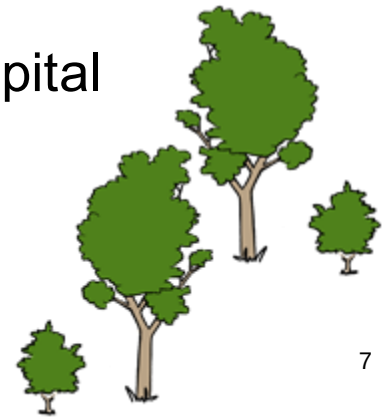


Questions:

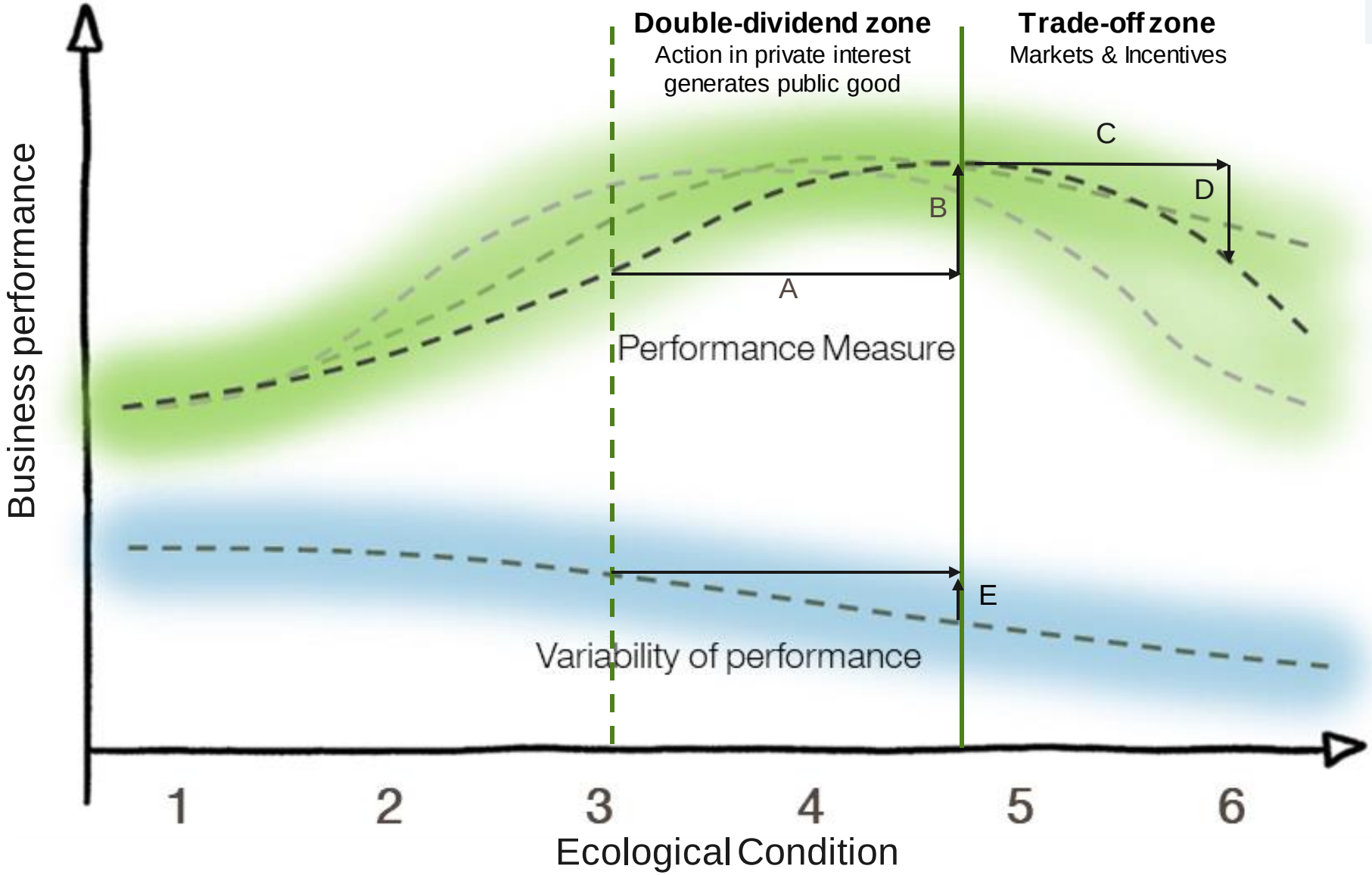
- Will changes to the natural capital of my farm be in my best interests?
- Will they help me meet my business, personal and social goals more easily?
- If so, what changes would I make?

Research Program Aims:

- Provide information about associations between different ‘levels’ of natural capital with differences in farm business performance and other benefits for farmers.
- Equip farmers and their advice networks with tools to use this information to prepare a ‘business case’ for investment in natural capital.



Natural Capital Farm Benefits Diagnostic Platform – Impact Elements



This Information Enables

Farmer: improved business performance – how to use nature to improve productivity. Evidence of Trade-off zones to use in negotiations.

Bank: improved business performance – how to reduce lending risk

Supply Chain: improved business performance – how to identify dependable producers

Government: increased public good (carbon, biodiversity, healthy landscapes and rural communities) at greatest efficiency.

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Reporting on the research

- Methods
  - Overview of the people involved
  - Farm sampling design
  - Overview of data collected
- Preliminary findings – focus on economic analysis
- Making the research useable by farmers
- Questions

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01 Methods

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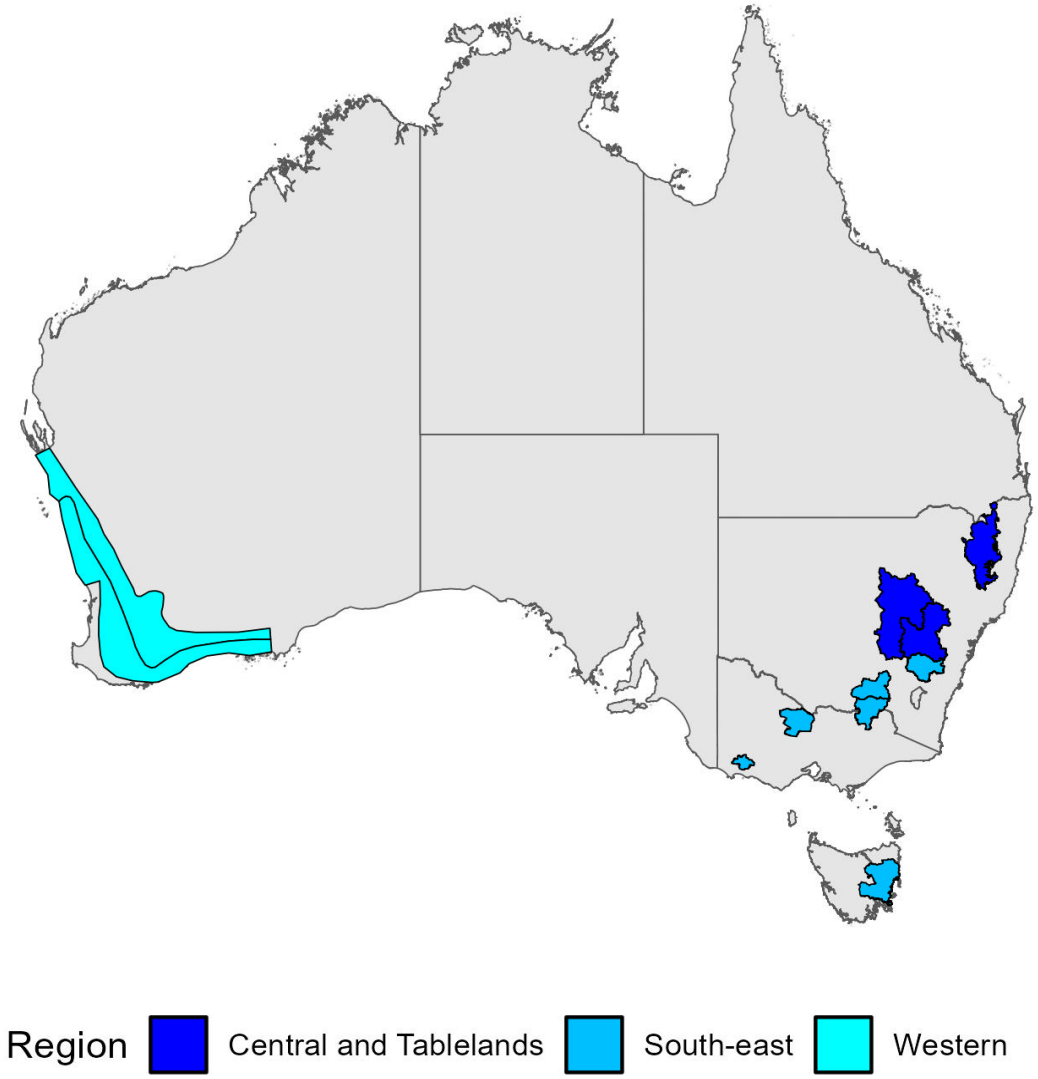
Interdisciplinary teamwork



Farm selection criteria:

- Livestock production - should be sheep and/or cattle operations.
- Farms to be 600 – 5000 ha in size
- Farms to have > 50% livestock production by size.

Regions selected based on agri-climatic zones

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Data collected

- Five-years of financial and production data
- Detailed, fine-scale natural capital data
- Farm and business management and practice information
- Farmer wellbeing

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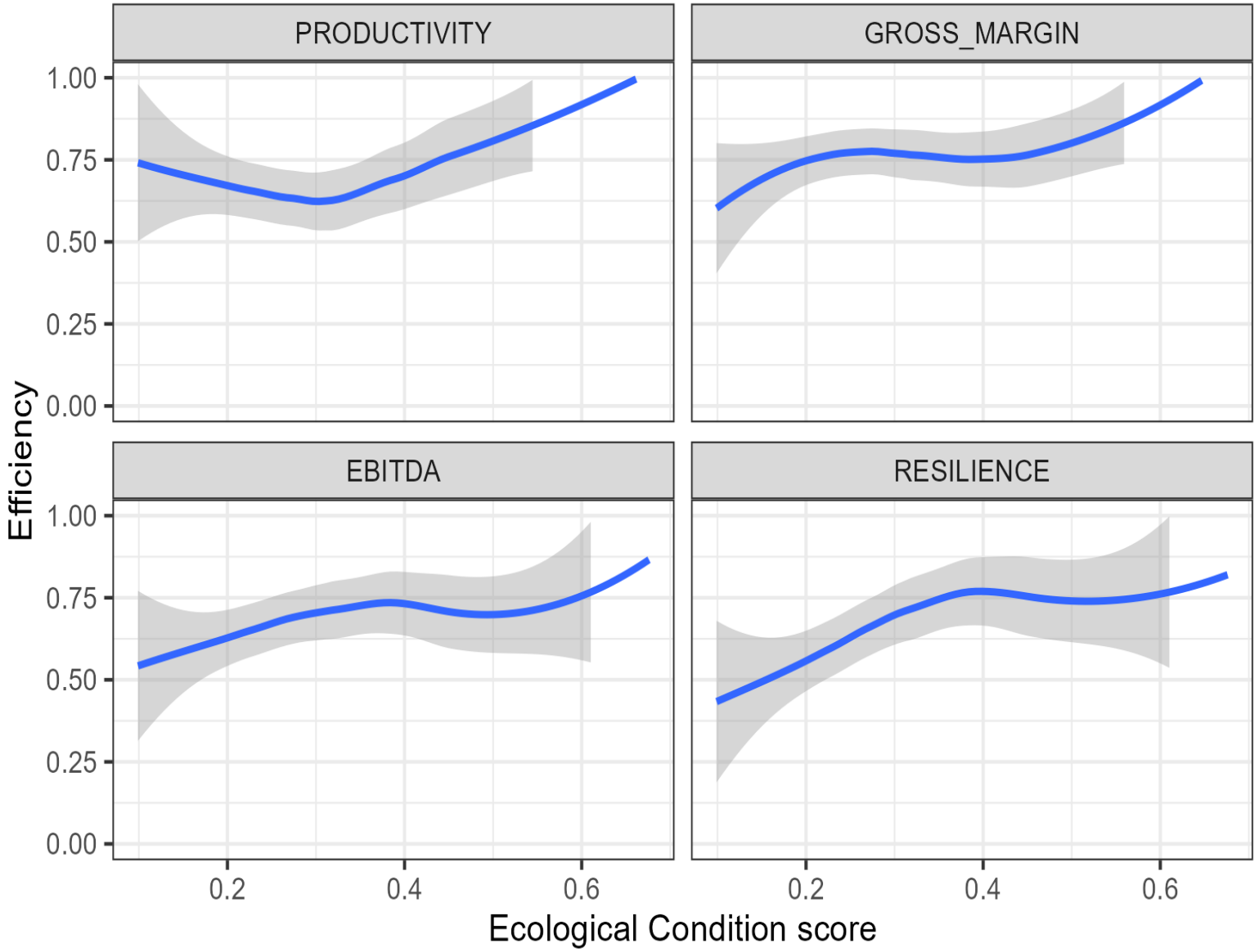
Findings Phase 2 Pilot

Natural capital can be included in economic analysis.

Natural capital is positively correlated with farm business performance

The natural capital curve



All regions combined

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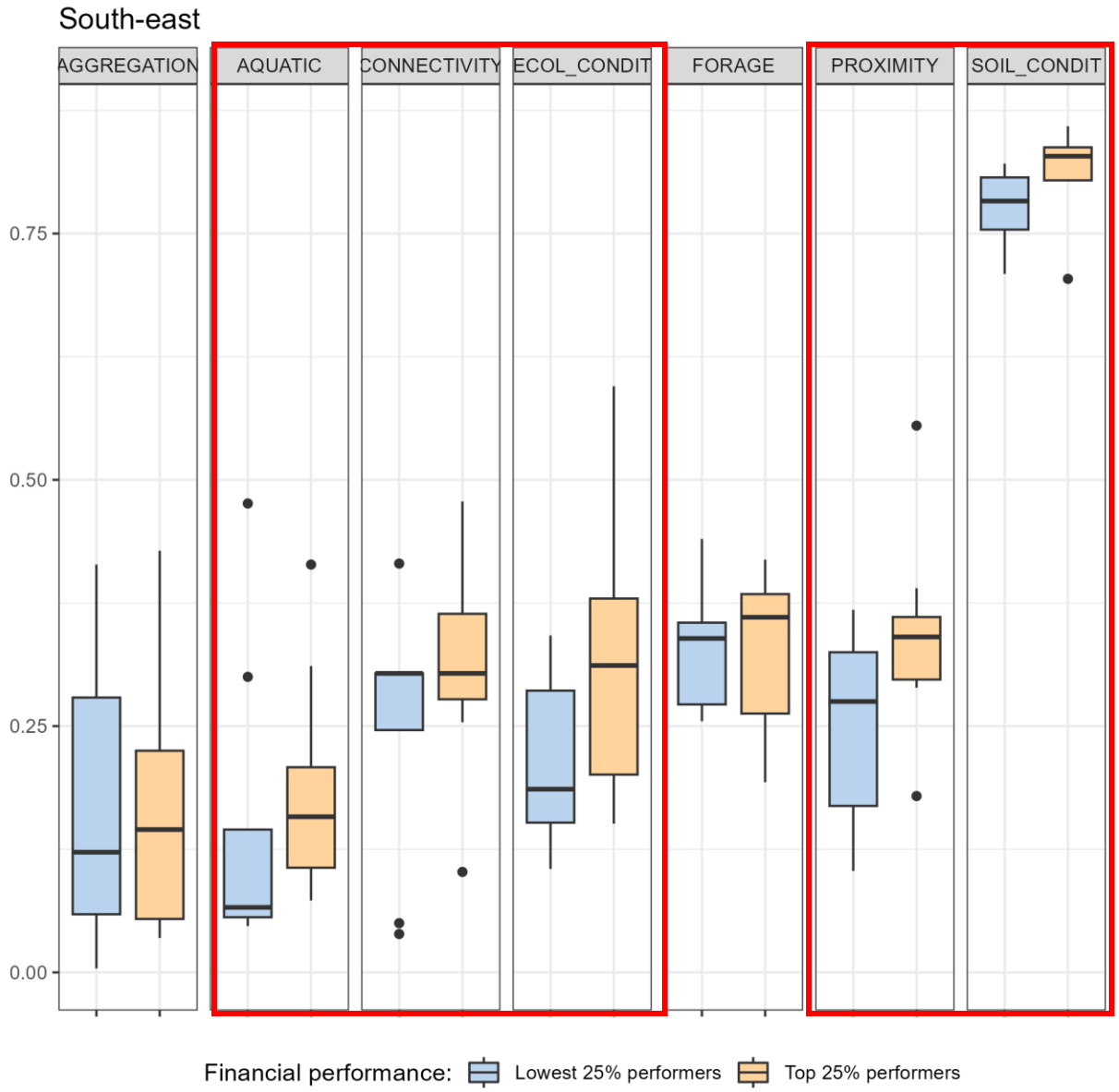
What elements of NC relate to business outcomes?



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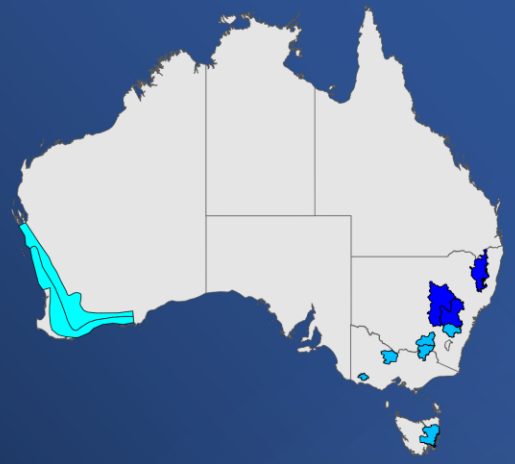
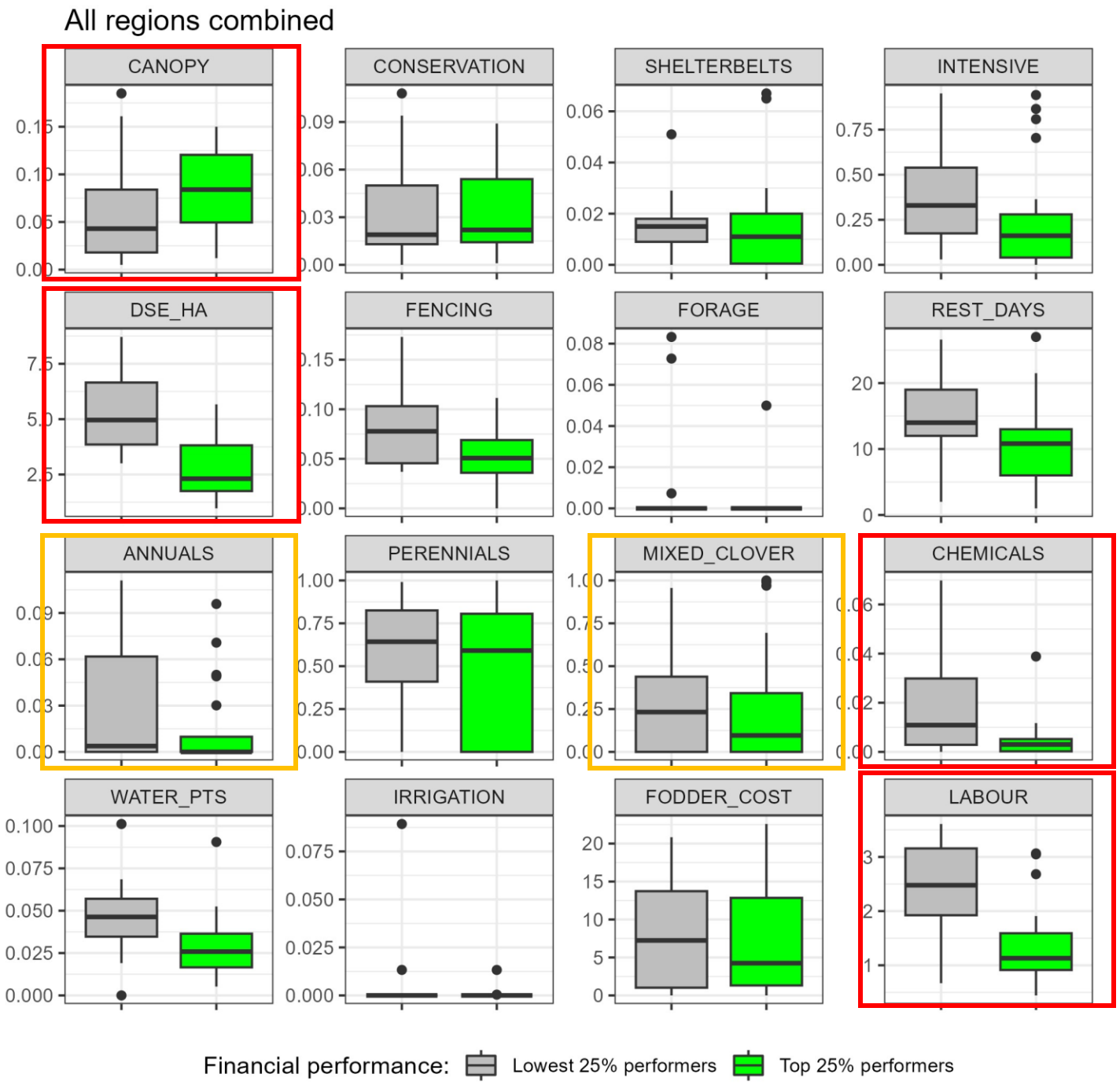


How does natural capital management contribute?



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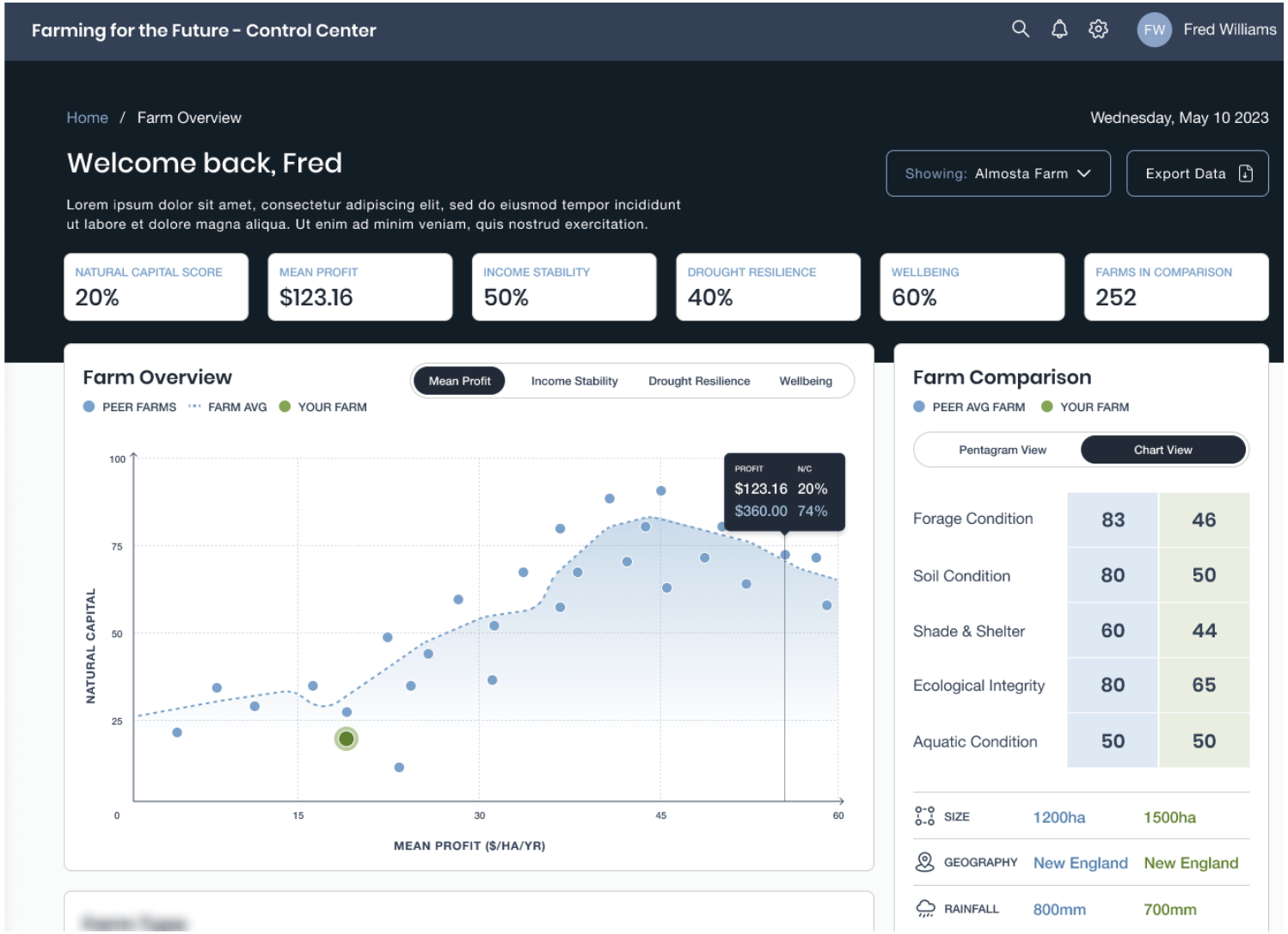
Making the findings actionable

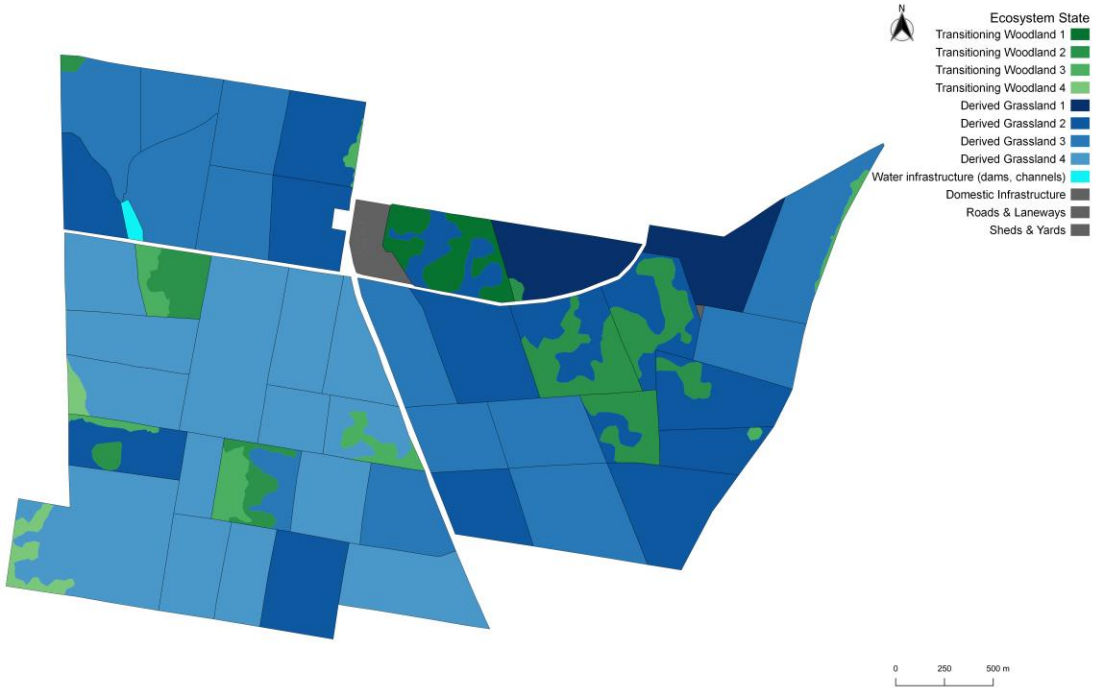


Dynamic farm reports

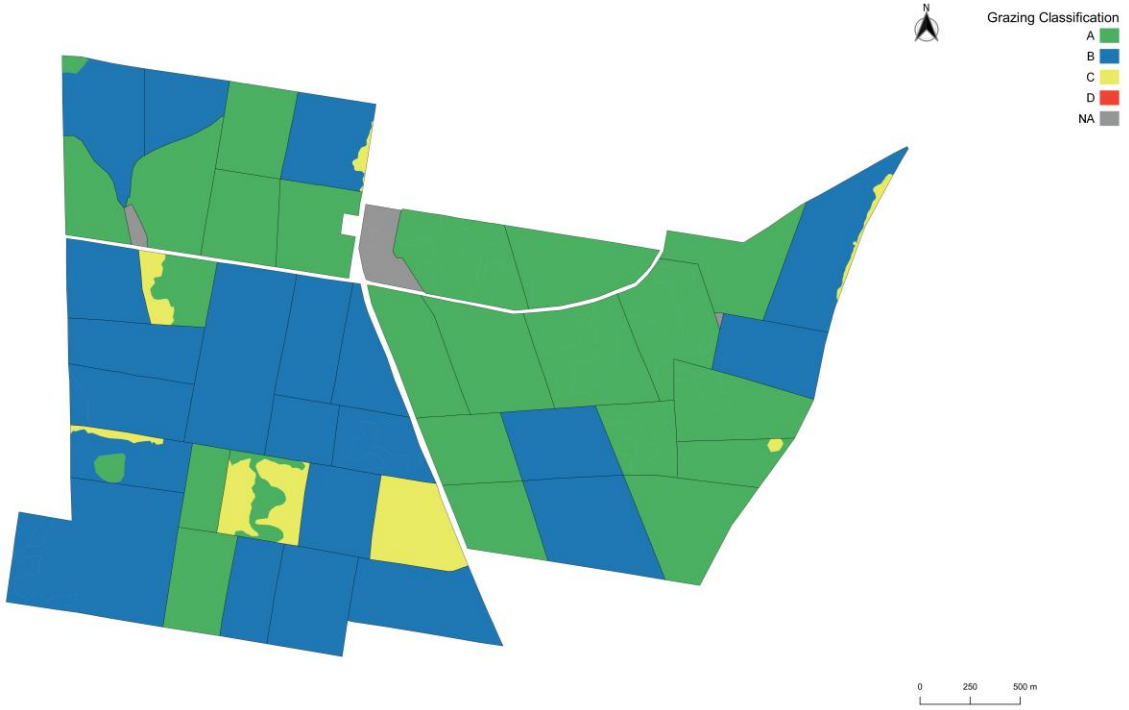
Showcase farm report

‘Double-clicking’ into detail

Ecological Condition map

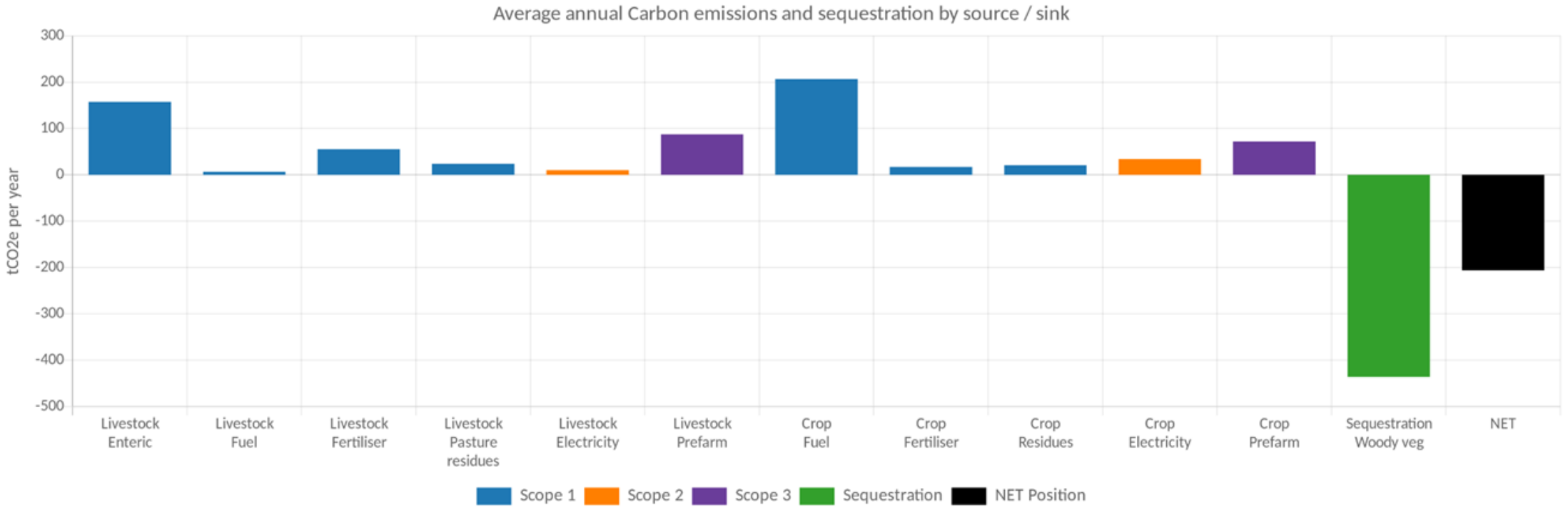


Forage Condition map



SEEA-coherent, management-useful tables of ecosystem extent and condition

Environmental Performance reports



Detailed environmental performance management and reporting information.

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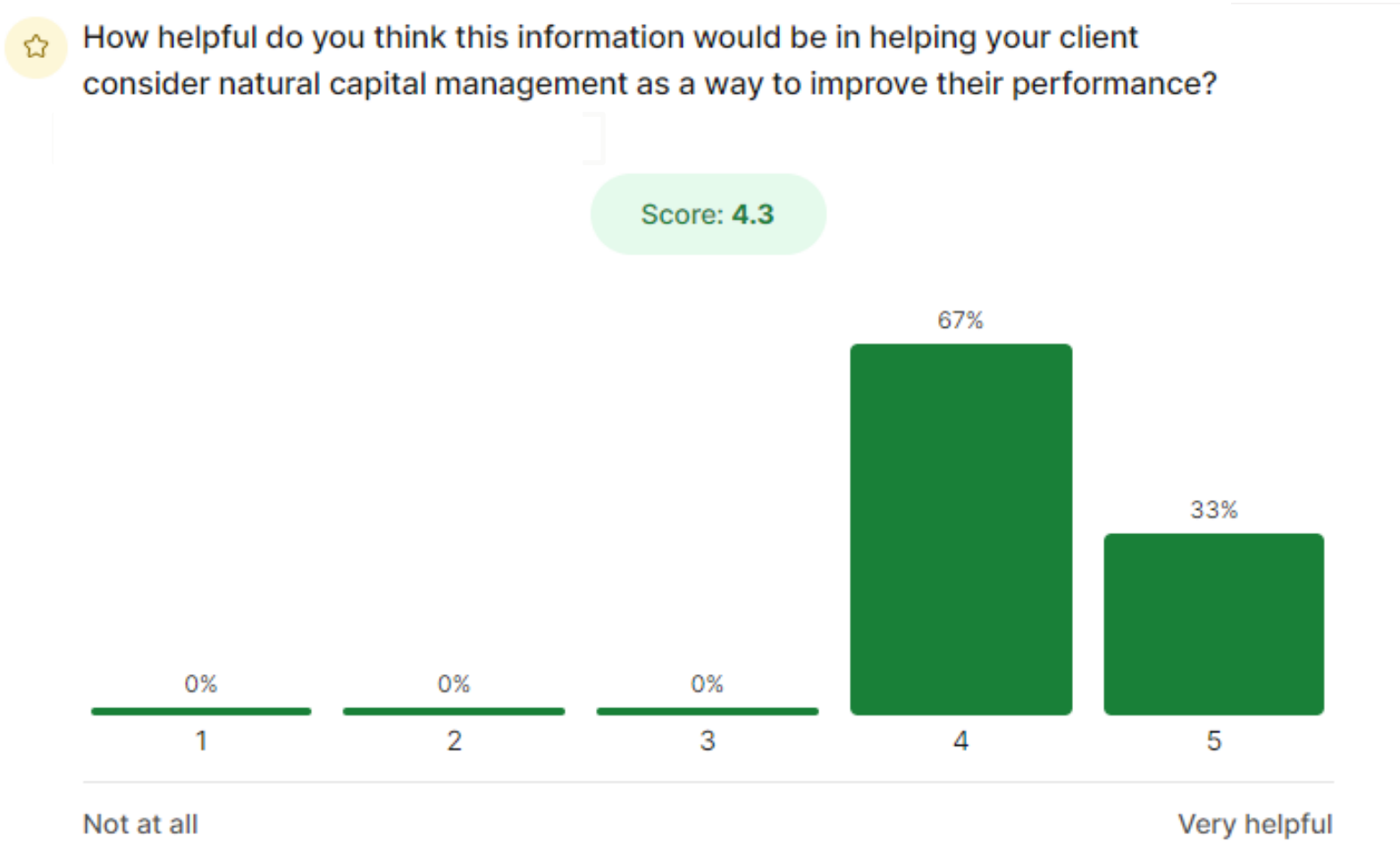
Making the findings actionable



> *Farming for the Future* is an unbelievable opportunity to have the natural capital on our property scientifically measured, rather than just working with gut feel. Having the natural capital figures of our property is beyond exciting

Farming for the Future & National Farmers' Federation Natural Capital Summit:

Quantifying the value of natural capital for Australian agriculture

Revealing the Value of Natural Capital to Agriculture

Quantifying the Private Benefits of Investment in Natural Capital and the Public Good

Dr Elizabeth Heagney

Research Director, *Farming for the Future*

Prof David Pannell

University of Western Australia

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Australian Government

AUSTRALIA'S LONG-TERM EMISSIONS REDUCTION PLAN

A whole-of-economy Plan to achieve net zero emissions by 2050

Australian Government

AUSTRALIA'S NATIONALLY DETERMINED CONTRIBUTION

COMMUNICATION 2022

Australian Government

Department of Climate Change, Energy, the Environment and Water

Nature Positive Plan: *better for the environment, better for business*

December 2022

Australia's emissions projections 2022

December 2022

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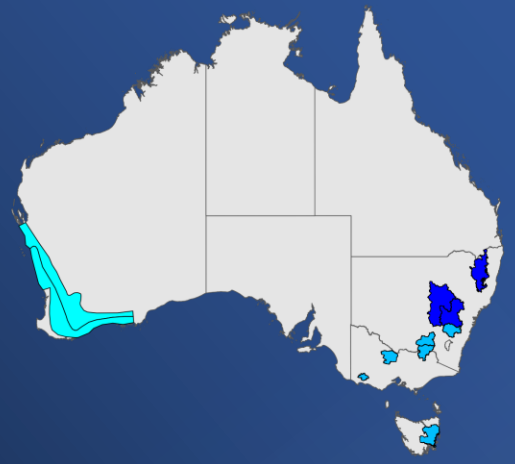
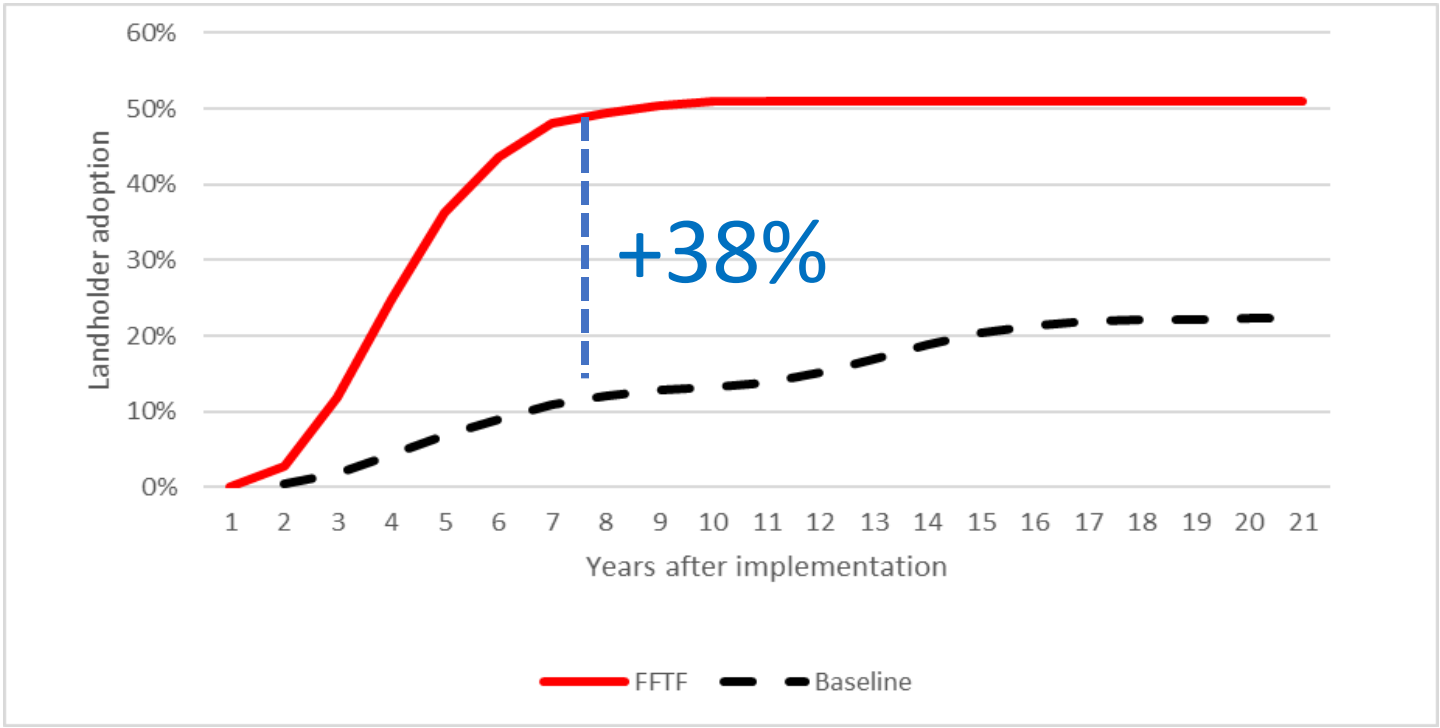


Achieving industry-scale adoption

Modelling adoption



ADOPT model: CSIRO, UWA, GRDC, ACIAR, WA & VIC govts, Future Farm Industries CRC

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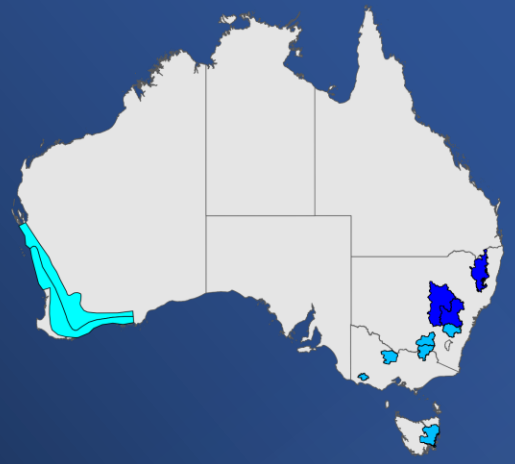
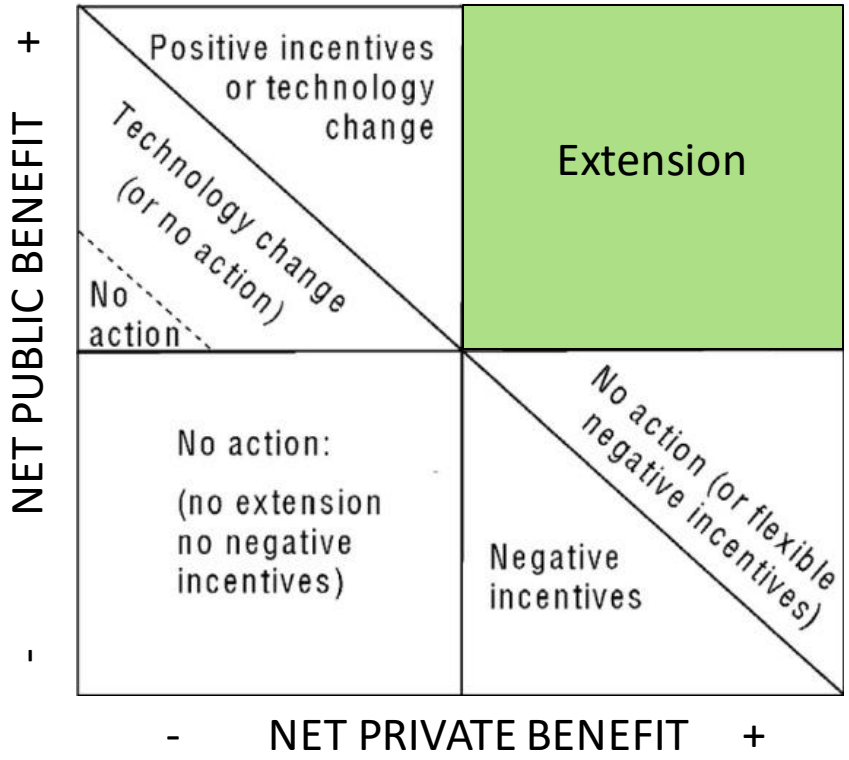


Achieving industry-scale adoption

Investing efficiently



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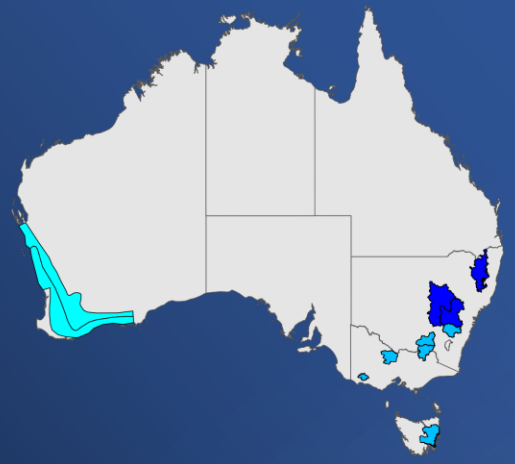

Achieving industry-scale adoption

Investing efficiently

Farming for the Future research + system activation activities means that data collection on 1,500 farms provides uptake by a much larger number of farms (~19,000).

This means we are achieving industry-scale transition at a cost of:

- $2,500 per farm
- $1-2 per hectare

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