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The Art of the Possible

What may the future hold for a region looking to diversify?

Professor David Lamb
Deputy CEO & Chief Scientist at Food Agility

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WHO IS FOOD AGILITY?

- A Cooperative Research Centre (CRC) that delivers **research & innovation services** to the Australian agrifood industry.
- Specialise in data-driven technology and data analytics to help **increase profits and improve sustainability**.
- **Track-record in brokering, designing and delivering high-impact innovation programs**
  - discrete, agile research projects → major initiatives of national and global significance.
- Our team and **network of 100+ project partners** span the agrifood, technology, research and government sectors.

$6.0b*
ECONOMIC IMPACT*

$430m
RESEARCH PORTFOLIO

60+
RESEARCH INITIATIVES

* Projected impact figures of Food Agility projects, as independently audited by ACIL Allen

We have rich commercial and research expertise and broad networks across the agrifood industry.

- Data sharing
- Traceability
- Cyber security
- Bio security
- Sustainability reporting
- Carbon measurement
- Microclimate sensing
- Circular economy
- Supply chains
- Market access
- Connectivity
- Animal health & welfare
- Agtech adoption
- Regulatory response
- Climate adaptations
- Yield prediction & growth

Local and global forces at play

Consumers

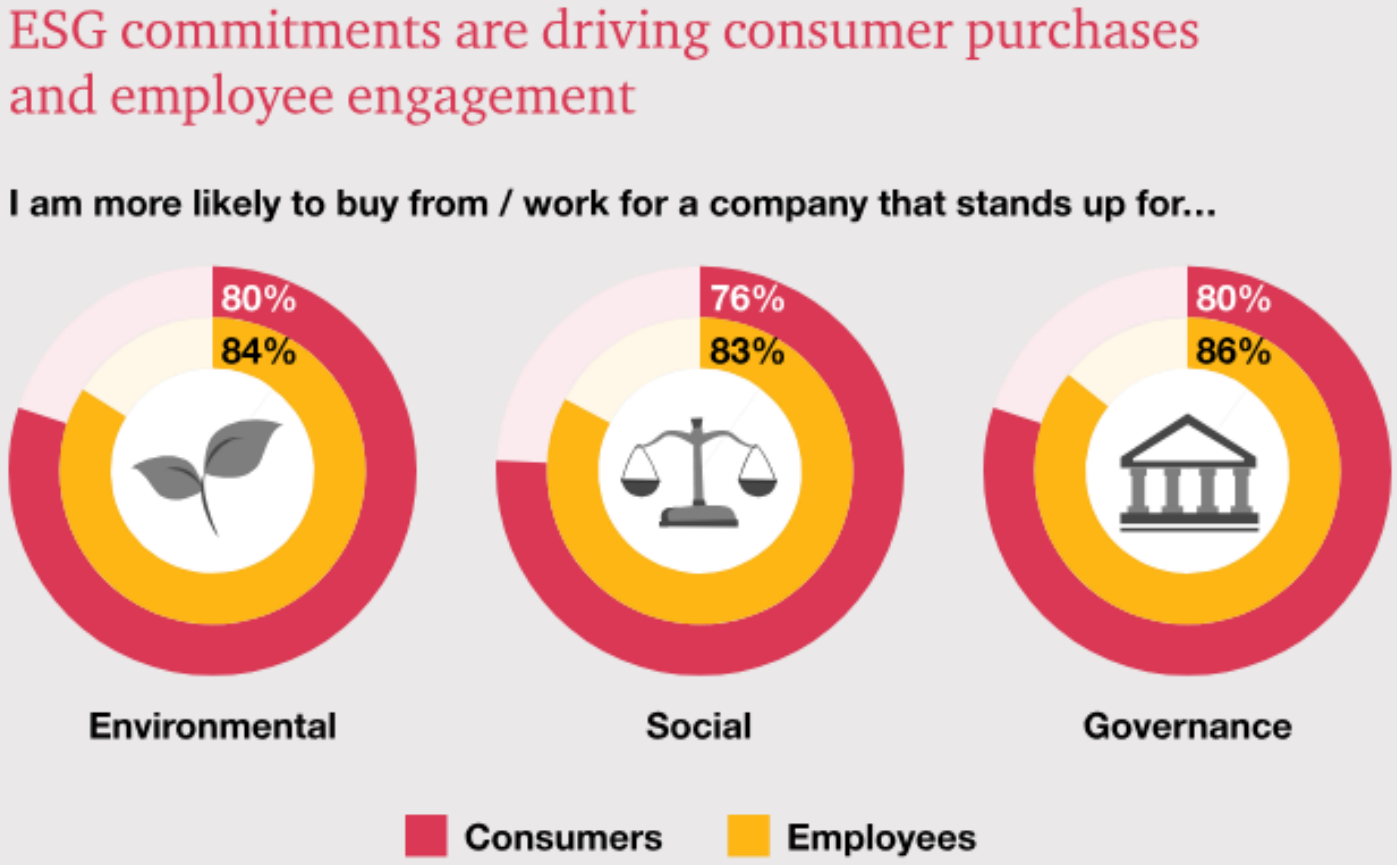
- Traceability (provenance)
- Accountability
- Transparency

Producers

- Trusted assurance mechanisms
- Accountability mechanisms
- Engagement/participation

Industry

- Continued market access
- Effective and efficient systems
- Minimum cost and minimum duplication



PWC Australia. (2021). PwC: https://www.pwc.com/us/en/services/consulting/library/consumer-intelligence-series/consumer-and-employee-esg-expectations.html

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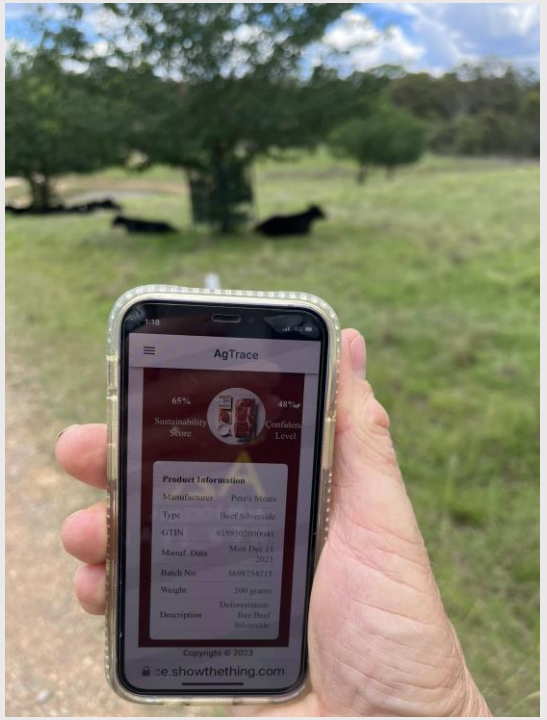
A possible future state where…

Every Australian product to market will have a Digital ‘wallet’



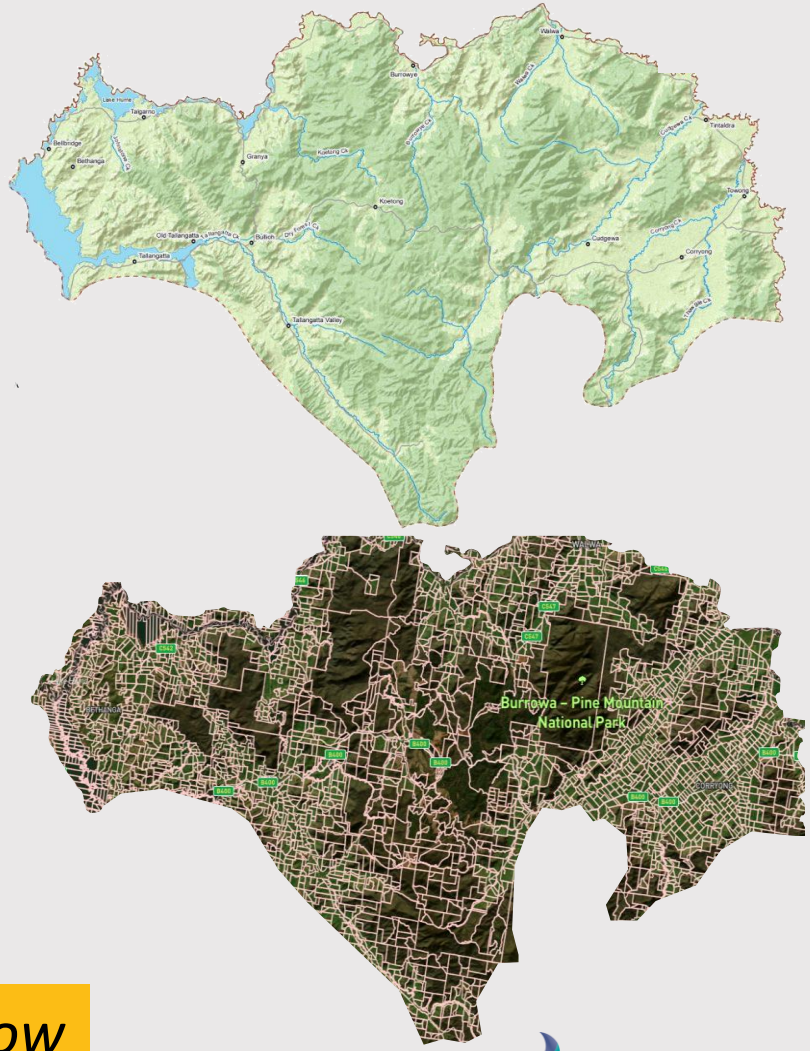
- **Facilitates market access**
- **Industry-led, regulator ready**
- ***Minimum govt interaction (ie B2B)***
- **Scalable/Accessible/Useable**
- **Producer focused/Permissions based**
- **Incentivizes use**
- **Low cost**

If you’re gunna say something- back it up ☺

Think global- act local…

Benchmarking

- **Name the collective end game**
- **What critical indicators are required to pool?**
- ***Role of ongoing MRV***
- **Scalable/Accessible/Useable**
- **Producer focused, participatory & regionally empowering**
- **Incentivized use**
- **Ease of participation (& low cost)**



If you're better together then collect, collate and show

‘Natural’ assets…

What story do you want to tell?

Brand leverage (and opportunity)?

What credentials/claims matter?

e.g. Low Emissions Beef (emissions intensity)

WaterSavR Beef (WUE)

Metrics that matter

Incentivized use- reward pathways

Ease of participation (& low cost)-engagement pathways

Nothing succeeds like success!

Example 1: The Cool Soils Initiative

To develop a scientifically credible framework for the food industry to report GHG emissions (Scope 3) AND support cropping farmers to achieve both sustainable production and reduce their GHG emissions

Mandatory climate reporting

- For large businesses and financial institutions.
- Majority of Australian small and medium businesses will **not** fall within this category.
- BUT many form part of the supply chain of larger businesses, which means they may need to engage with climate reporting considerations over time, even if they do not have any direct climate reporting obligations.
- The 'scope 3' emissions of a large business with reporting obligations may include the emissions of its small business suppliers.

Example 1: The Cool Soils Initiative

To develop a scientifically credible framework for the food industry to report GHG emissions (Scope 3) AND support cropping farmers to achieve both sustainable production and reduce their GHG emissions

Key outcomes & impacts

- Developed & refined paddock level GHG emissions data (seasonal conditions & soil health) across a number of years on 200 farms.
- Data aligned to Australia's National GHG inventory and globally compatible to ensure credibility → framework/data for major food-related companies to understand & work toward reducing Scope 3 emissions generated on-farm in their supply chain.
- Allowed key players in the grains supply chain to support farmers in investigating innovative cropping practices to improve their soil health and in-turn reduce & sequester on-farm GHG emissions.

Example 2: On-Farm Water Demand

Putting real-time water usage data into the hands of farmers for the greatest sustainable business and community returns

- Community tensions developing over water allocations in the Manjimup region of WA.
- SFFC reached out to develop a digital evidence base for the value of water for agrifood production in the catchment.
  - It isn't possible to value water in the absence of accurate water use and $ return data.
  - Water demand for on-farm production is generally collected by farm businesses but not government departments.
- Producers *want to know*
  - *how their crops stack up ($/Ml) against other crops grown in the region.*
  - *Which crop(s) their kids can grow profitably in 10-20 years? Will they have enough water?*

Example 2: On-Farm Water Demand

Putting real-time water usage data into the hands of farmers for the greatest sustainable business and community returns

SWAN systems
Scheduling water and nutrients

Southern Forests Genuinely Western Australia

Curtin University

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In a nutshell:

- 30 participating farms are harnessing water flow sensors & an online dashboard (irrigation events, soil moisture, forecasted weather).
- Producers see how their seasonal water productivity ($/ML) compares to other farms, growing the same crop, in the region.
- From here producers are able to improve management practices & utilise data for long-term business decisions.

Other models being derived from data:

1. Water demand across the catchment
2. How the value of water translates into flow-on social, economic and community benefits for the region.

THANK YOU

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