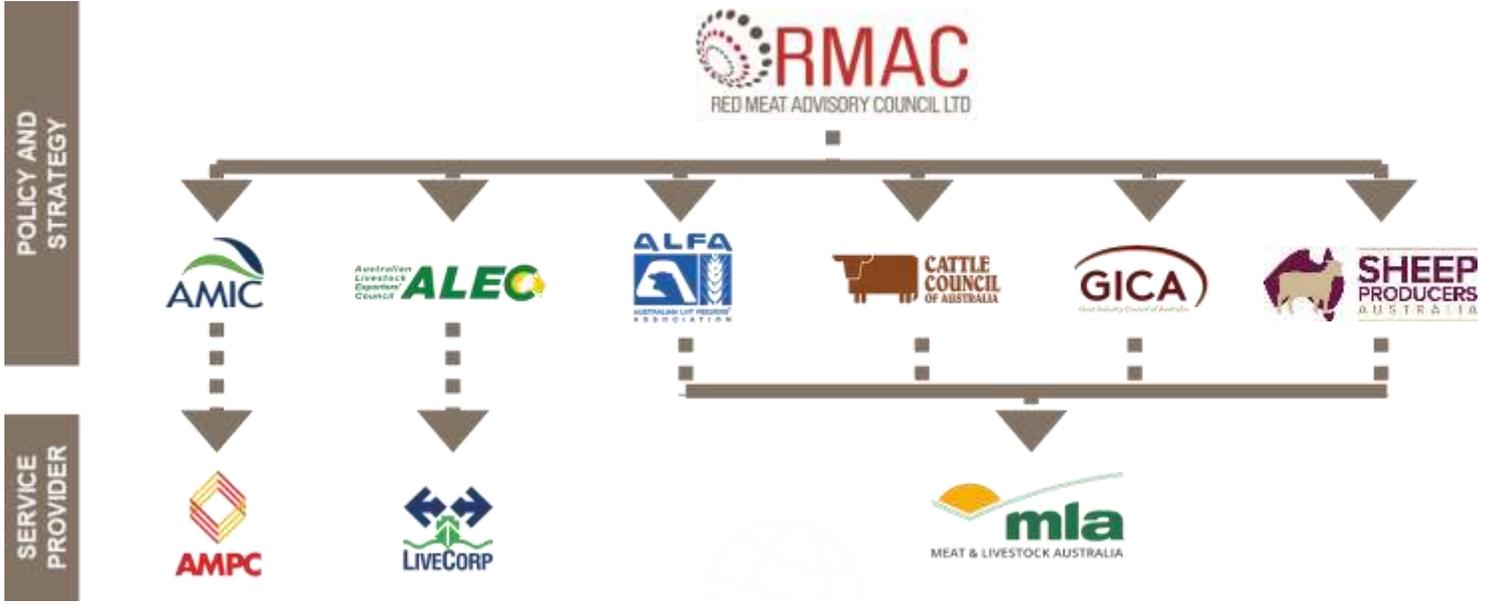# Outline

› What – a big, bold, aspirational goal

› Why industry set an aspirational goal

› How industry will be successful

MLA's remit

MLA invests in research, development, adoption and marketing initiatives that contribute to **producer profitability, sustainability** and **global competitiveness**.

Stakeholders

Customers: Buyers and sellers of Australian red meat and livestock from paddock to plate

Consumers: Diners and purchasers of Australian red meat

Communities: Societies, regions and cultures that Australian red meat businesses are part of and contribute to

Government: Federal and State government departments involved in carbon accounting, and industry regulation

R&D and commercialisation partners: Research organisations, consulting service providers, technology manufacturers
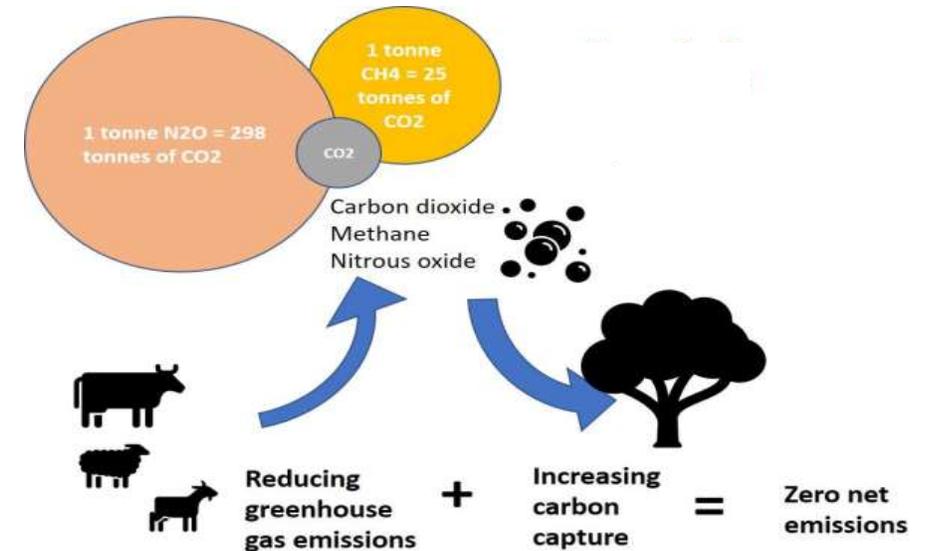
Carbon Neutral 2030 (CN30) Initiative

Two key components:

1. Aspirational target - for the Australian red meat industry to achieve net zero greenhouse gas (GHG) emissions by 2030.

2. Coordinated RD&A effort

GHG emissions are measured & reported by the National Greenhouse Gas Inventory accounts:

GHG emissions ▬ Emissions captured and/or offset ═ tonnes CO2e

Total Australian emissions and emissions attributed to the red meat industry in 2005, 2015 and 2016

Numbers on the graph indicate % of national emissions from red meat in a particular year.
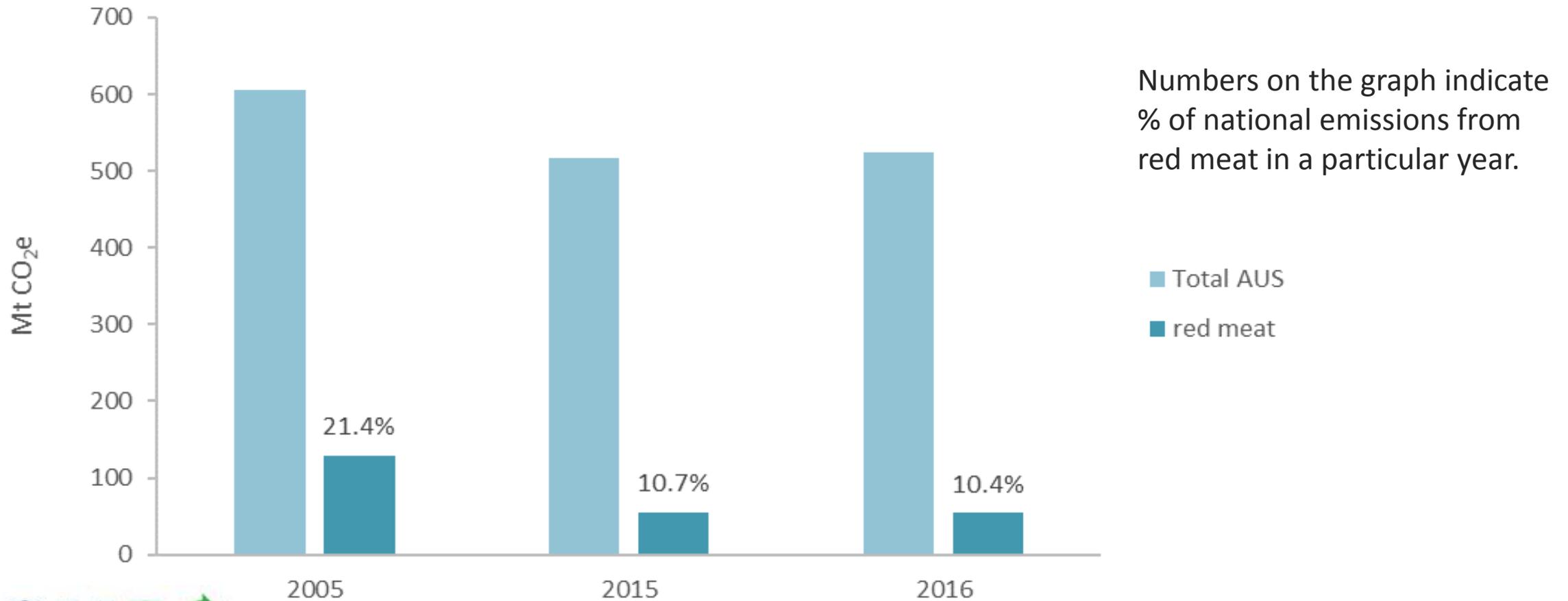
Reasons why industry set an aspirational goal

Stay ahead of consumer, customer and community expectations

Maintain market access

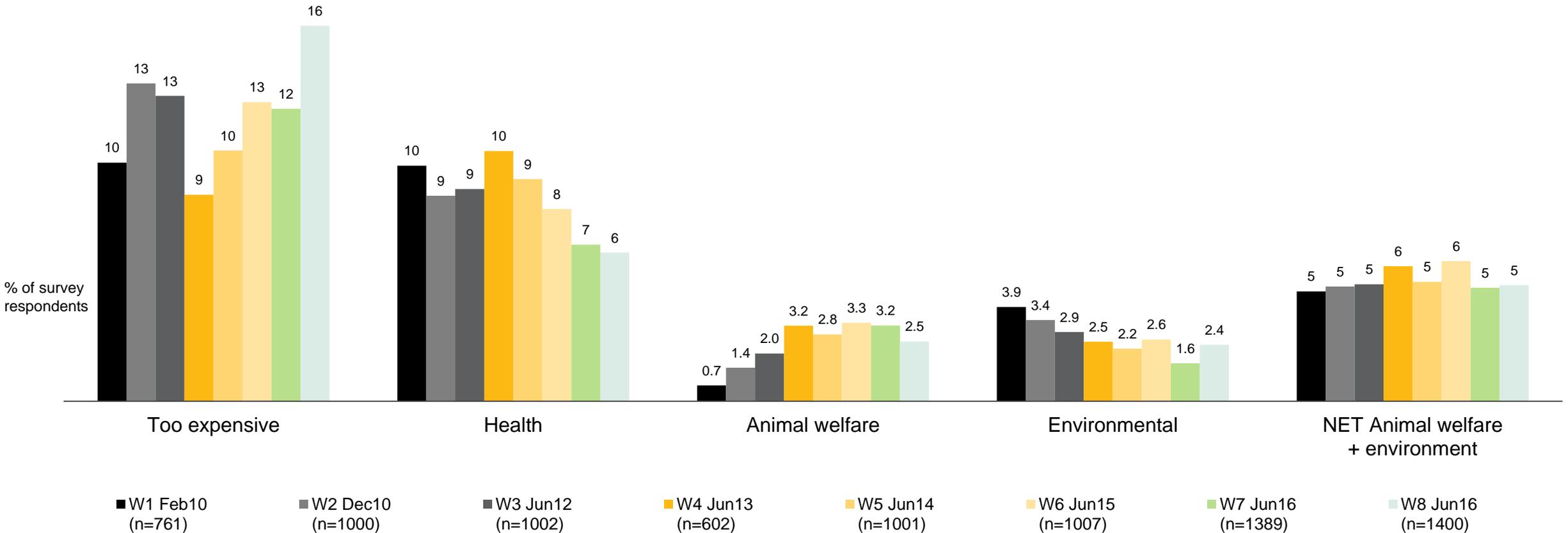Enable ongoing access to capital

Minimise the need for regulation

CN30

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Reasons why consumers reduce red meat consumption

% of survey respondents

Too expensive: 10, 13, 13, 9, 10, 13, 12, 16

Health: 10, 9, 9, 10, 9, 8, 7, 6

Animal welfare: 0.7, 1.4, 2.0, 3.2, 2.8, 3.3, 3.2, 2.5

Environmental: 3.9, 3.4, 2.9, 2.5, 2.2, 2.6, 1.6, 2.4

NET Animal welfare + environment: 5, 5, 5, 6, 5, 6, 5, 5

- W1 Feb10 (n=761)
- W2 Dec10 (n=1000)
- W3 Jun12 (n=1002)
- W4 Jun13 (n=602)
- W5 Jun14 (n=1001)
- W6 Jun15 (n=1007)
- W7 Jun16 (n=1389)
- W8 Jun16 (n=1400)

Q: Which ONE of the following best describes why you have reduced the amount of red meat you are eating?
Base: Total meat eating sample
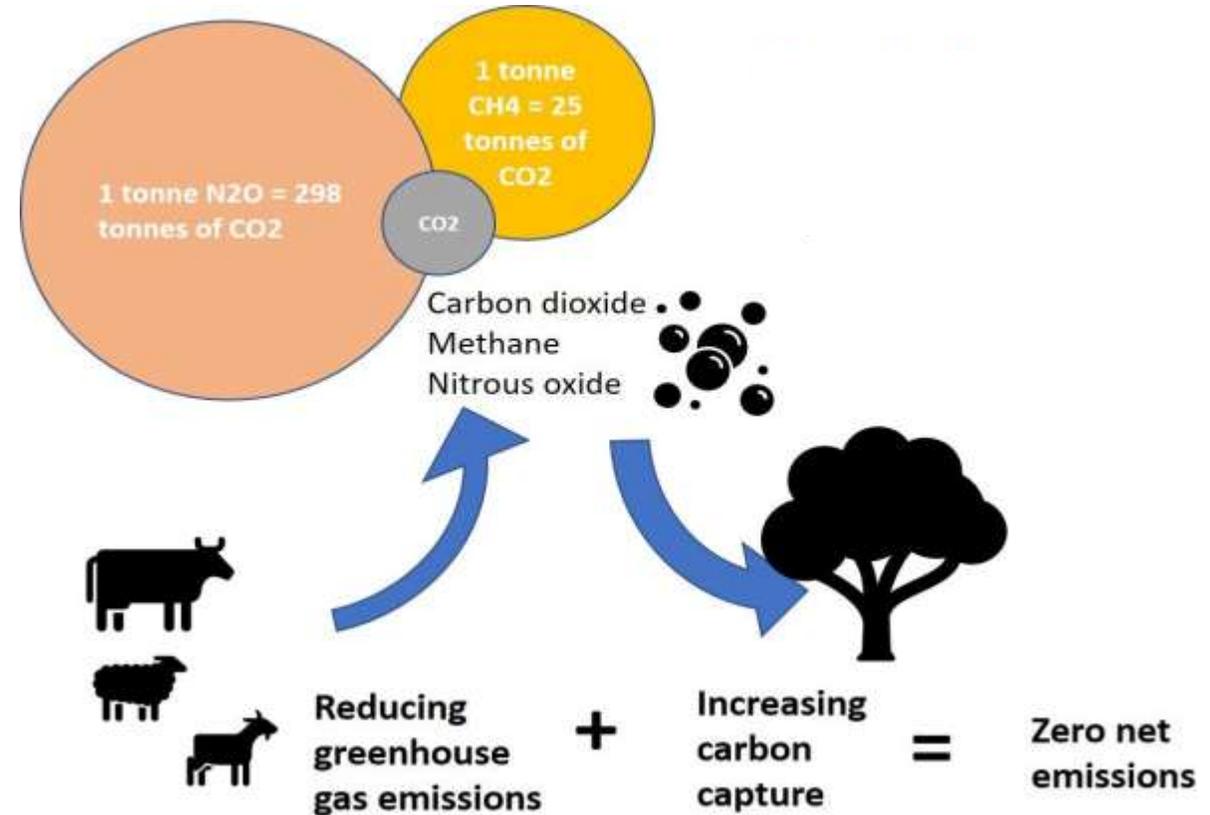
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Summary of options to achieve CN30

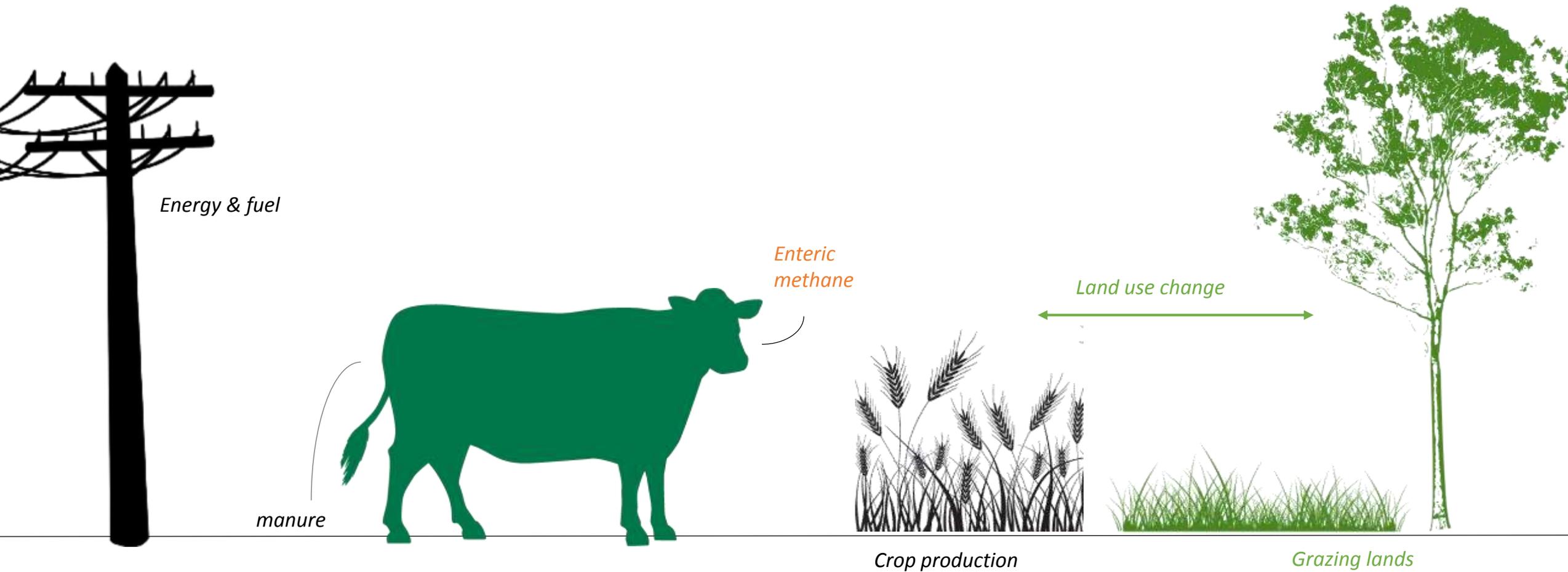Livestock systems can be carbon neutral:

- Initially, through reducing emissions from farms, feedlots and processing
- Then using trees and soil carbon to reach carbon neutral

In the near future:

- We need more options for low methane ruminants
- More benign sources of nitrogen
- Build soil organic carbon – for healthy soils
- Plant more trees for multiple objectives

GHG emissions from Australian red meat production

Energy & fuel

Enteric methane

Land use change

manure

Crop production

Grazing lands

CN30

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The roadmap ahead: work areas paving the way to CN30

1. Emissions avoidance
2. Carbon storage
3. Integrated Management systems
4. Leadership building
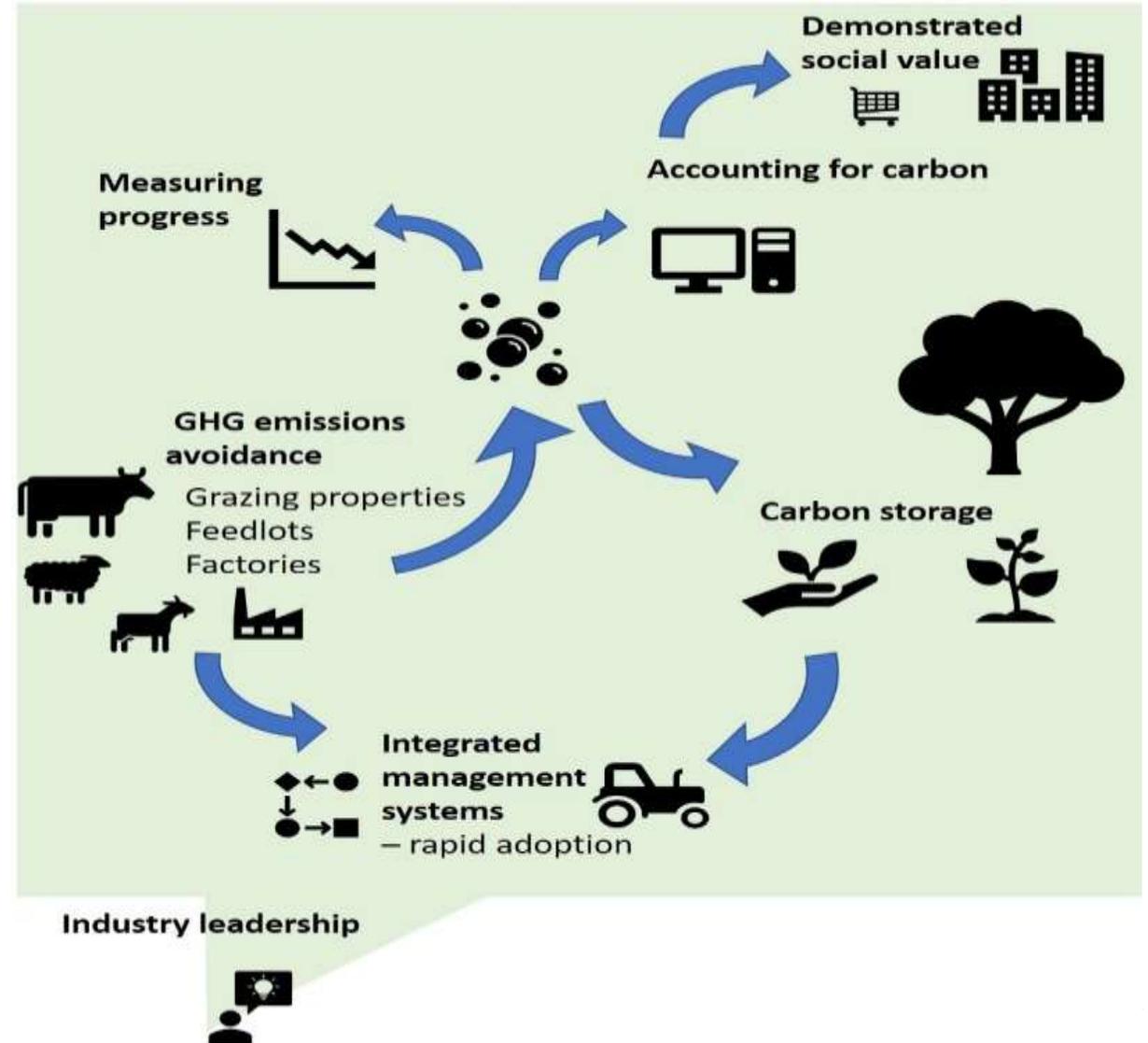
MLA's role in the CN30 Initiative

MLA supports CN30 through:

- Research & Development activity
- Promotion of practice adoption and behaviour change
- Establishment of commercial pathways through partnerships
- Development of business models to unlock value adding opportunities for industry

- Assisting producers and processors identify the most enterprise suitable GHG reduction practice

- Unlocking funding opportunities through commercial partners and available state/ federal department monies

CN3O

MLA actions so far

1. Established baseline emissions with endorsement from Dept. of Environment

2. Identified mitigation opportunities:

   a. Most promising practices which:

      - Reduce GHG emissions from animals (enteric and manure) and processing

      - Sequester carbon

3. Identified a series of pathways/scenarios to allow industry to claim carbon neutrality by 2030 (including policies needed to incentivise these changes)

4. Worked with industry stakeholders to garner 'buy-in'

5. Begun to invest (predominately co-invest) across the value chain – however investment needs to double

CN30 plan on a page

Aspiration: A socially acceptable, profitable, carbon neutral red meat industry in 2030

Avoid emissions ➡ **Manage carbon in soils & plants** ➡ **Drive technology adoption**

Emissions avoidance R&D

Activities:
1. Continual improvement in animal genetics and husbandry practices to increase production efficiency, also results in reduced methane emissions per kg of production;
2. Developing technology to avoid methane emissions from livestock, such as screening of supplements for enteric methane;
3. Developing viable grazing supplement delivery technologies;
4. Assessing new pastures, shrubs and legumes that offer co-benefits of livestock productivity and lower methane emissions;
5. Developing technology to avoid methane emissions from waste management;
6. Developing energy efficiency or renewable energy technology;
7. Developing technology to reduce emissions from manure management and fertiliser use;
8. Continuing evolution of savanna burning management methods.

Investment required: $95m to June 2029

Key partners: CSIRO, Unis, livestock feed companies, seed companies, NRM groups, engineering service providers, Gov Depts

Carbon storage R&D

Activities:
1. Development of new legumes, pastures and shrubs to build feedbase and carbon stocks;
2. Advancing soil carbon sequestration methods and measurement technology;
3. Improving integration of trees and shrubs for improved carbon storage, animal health and biodiversity;
4. Optimising vegetation regrowth management;
5. Optimising carbon storage in dead woody biomass;
6. Investigation of carbon storage increases from dung beetle activity in grazing lands.

Investment required: $95m to June 2029

Key partners: CSIRO, Unis, seed companies, NRM groups, farming system groups & service providers, engineering service providers, meteorological service providers, Gov Depts

Integrated management

Activities:
1. Analysis of farming systems to determine appropriate combinations of emissions avoidance and carbon storage technologies and practices;
2. Incorporation of emissions avoidance and carbon storage practices into existing extension and adoption platforms;
3. Development of resources and tools to support adoption of emissions avoidance and carbon storage practices;
4. Linking outcomes from carbon farming projects into the National GHG Inventory;
5. Development of new scientific methods to generate carbon credits;
6. Development of new measurement and reporting mechanisms to improve carbon accounting;
7. Investigation of new accounting metrics for GHGs from livestock.

Investment required: $20m to June 2029

Key partners: CSIRO, Unis, farming system groups & service providers, Gov Depts

Leadership building

Activities:
1. Industry leadership and development initiatives;
2. Aligning relevant industry strategies and frameworks, such as Red Meat 2030 and the Australian Beef Sustainability Framework;
3. Working with Peak Industry Councils and Government to design policy to support research, development and adoption activities;
4. Development of science communication initiatives for all stakeholders.

Investment required: $20m to June 2029

Key partners: Research organisations, farming system groups & service providers, red meat businesses

Key barriers to overcome for industry to be successful

- Attracting public and private investment - circa $200m to 2030 to deliver Industry's CN30 Roadmap.
- Review of State and Federal Gov support mechanisms to drive new technology adoption and practice change.
- New, easily adopted carbon credit methods for industry.
- Evolution of the Commonwealth Government's national inventory to reflect red meat industry activities.
- Continued development and present and future industry leaders.
- Education and awareness of solutions.