

Today's presentation

About Meat & Livestock Australia

New tools, technology and innovations

Biosecurity

CN30



About MLA

Working in collaboration with the Australian Government and the wider red meat industry, MLA invests in initiatives that contribute to producer profitability, sustainability and global competitiveness.











MLA Vision

Enduring prosperity for the Australian red meat & livestock industry



To deliver world-leading outcomes that fuel global competitiveness, sustainability and producer profitability.

MLA's remit

- Research, development and adoption
- Marketing



























POLICY AND STRATEGY

SERVICE PROVIDERS









red meat customer assurance

Going digital with eNVD

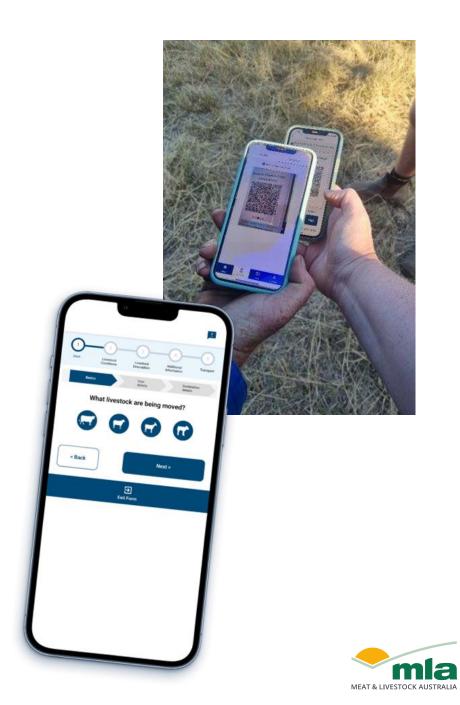
- Soft-launched by Integrity Systems Company (ISC) at the MLA Updates in Toowoomba in November 2022. Hardlaunch occurred last week.
- The eNVD is not just an NVD it's a system for completing all consignment details digitally including livestock assurance and health declarations.
- Data can be transferred fully offline via a QR code system –
 from a producer's phone to transporters and beyond.
- Helps move NVDs to a new era, overcoming connectivity issues.
- Saves time, prevents errors and enables efficient access to data.





Going digital with eNVD

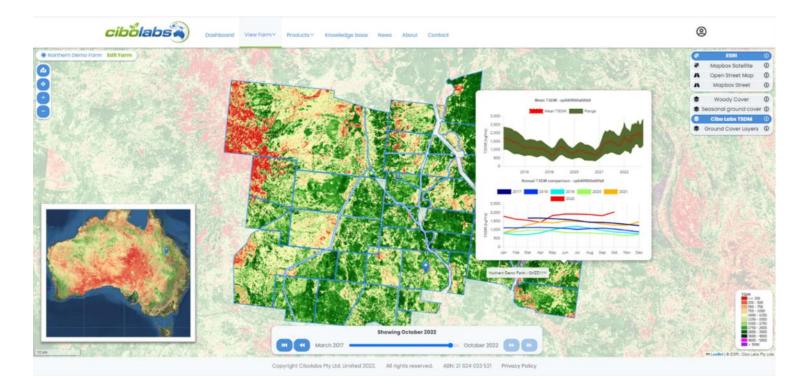
- The app has had almost 6000 downloads and 34,000 mobile sessions.
- We've seen 1225 consignments created, covering 83,000 head – covering 37% of consignments.
- Industry still has access to paper NVDs and any change or transition will occur in consultation with the industry.
- ISC has a trained team of consultants working across sectors and supply chains to develop adoption plans to assist in the uptake of digital consignments
- Check out the app in the App Store or Google Play and try it for yourself.
- Any questions the ISC team are always happy to help.



Australian Feedbase Monitor



Remote sensing and machine learning from satellite imagery of pasture biomass, ground cover and land condition and grazing monitoring.





Weekly estimates of pasture biomass and ground cover

- · What are my ground cover levels?
- What are my paddock pasture biomass levels?
- How does my feed on offer (FOO) compare to last month?
- How many grazing days do I have available in each paddock and across my enterprise?
- When will the mob hit the target weight?

What's my ground cover?

Is my grass going to last?











Time-series satellite imagery scout maps to optimise field pasture assessments Directed in-paddock sampling. Detailed pasture yield assessments. Dedicated data collection Apps 5 daily time-series satellite data. Machine Learning based on field data. A "living laboratory" based on producer and Cibo data. Estimates of pasture biomass for every paddock every 5-15 days. No "black boxes" Estimates of Feed on Offer for every paddock, property and the company every 5,15-30 days

Integrated with:







MEQ Probe

- A needle probe that uses spectral imaging
- IMF measurement in hot carcases validated against laboratory IMF measurement
- AUS-MEAT conditional accreditation achieved for lamb IMF: 2 6% range
- Industry IMF range accounts for c.10 MSA points for juiciness, flavour and overall liking





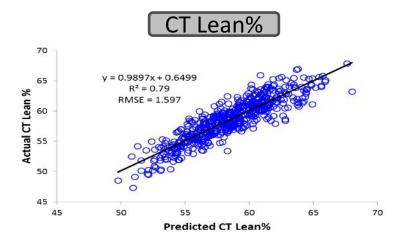


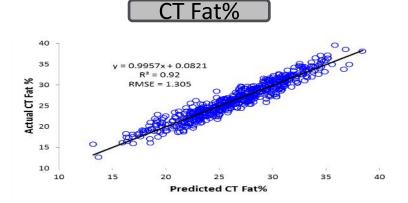
DEXA – Dual Energy X-ray Absorptiometry

- X-ray technology to measure the composition of each carcase
- Differentiates lean, fat and bone to measure carcase lean meat yield







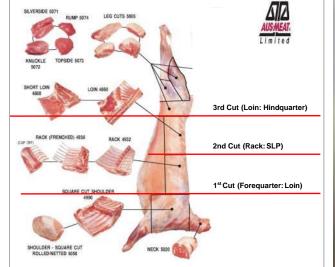


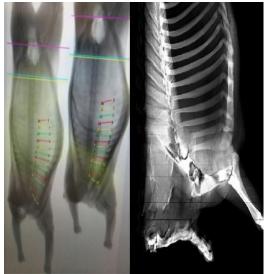


Process sensing and automation

- Australian meat processing are rapidly ramping up their investments in robotics and automation.
- DEXA is being used on conjunction with robotic meat cutters and boners for lamb processing.
- The system increases the value of a lamb carcase by \$7-8/head. (Payback: 1-2 years).

DEXA – dual-energy X-ray





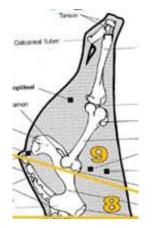


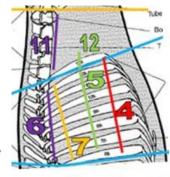


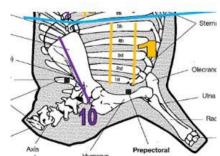
The next frontier - new innovative beef boning approach

DEXA x-ray sensing and robotic cutting has the potential to reliably and accurately process a beef side at 500 sides per hour.

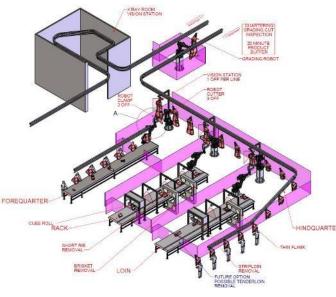
- Forequarter, middle and hindquarter sections into multiple cutting zones
- \$20 \$30 per carcase increase in value.
- Striploin/Rack/Chuck zone remains the key focus













Other innovations – upcycling lower value cuts and by-products

Improved waste management

Improving performance of anaerobic digestion (AD) as a platform for energy production, pretreatment, next-gen AD, additives, and cotreatment strategies.

Wastes assessments, business models, and pathways to adoption

Framework to all activities, ensuring the development of viable commercial outcomes. Providing information on the costs, benefits, and opportunities associated with the technologies being developed.

Bio-derived fuel, chemicals, and energy products

Hydrothermal processing of waste streams and AD digestates to improve energy (biocrude) and fertiliser production.

\$

Bio-derived fertilisers

Optimisation of the physicochemical properties of digestates for land application.

Nutritionally-advanced feeds

value feeds. Microorganisms,

microalgae, enzymatic and co-

cultivation technologies.

Biological conversion of solid, liquid,

and biogas waste streams to high

essing of waste estates to

Bio-derived plastics and composites

Improving characteristics of bioplastic. Potential use of paunch solids in biocomposite materials.









MEAT & LIVESTOCK AUSTRALIA

Waste2Profit – Rural R&D for Profit program led by MLA

Powdered organ meat & collagen (hides) - nutraceuticals

FMD and LSD in Indonesia Risk of incursion in next five years

28%



12%





Investing to help protect our industry

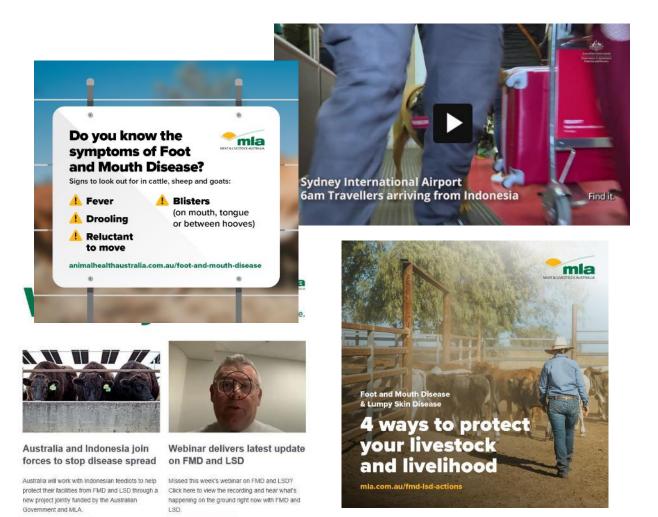
- Supporting the Indonesian Government to review its national traceability system to help track and control livestock movements.
- Funded five sets of portable cattle yards to assist local government authorities to vaccinate cattle for FMD
- Partnered with the Australian Government to deliver biosecurity support to Indonesia.
- In-country vaccination support, including a reimbursement for vaccinations of Australian cattle entering Indonesian feedlots. MLA has committed up to \$1.3 million.
- We are also investing in research and innovation, such as partnerships around the development of mRNA vaccines for LSD.





Boosting industry awareness and preparedness

- Visit MLA's <u>dedicated FMD and LSD</u> <u>webpage</u> or <u>frequently asked</u> <u>questions about FMD and LSD</u>
- View this <u>factsheet and checklist on</u> <u>farm biosecurity</u>
- Read <u>MLA news on FMD and LSD</u>
- Visit the <u>ISC website</u> for more biosecurity tips, tools and news.







An aspirational target for the Australian red meat industry to achieve **net zero greenhouse gas emissions by 2030**.



CN30 Carbon Neutral 2030

Two key components:

- 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 and reported by the National Greenhouse Gas Inventory accounts:

GHG emissions — Emissions captured and/or offset = 0 tonnes CO_{2w}



CN30 - Key work areas

 Grazing properties · Feedlots Processing facilities

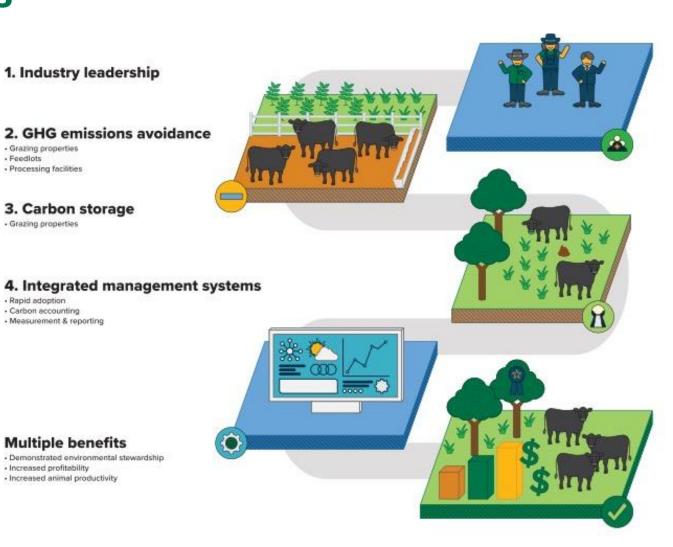
Grazing properties

· Rapid adoption Carbon accounting · Measurement & reporting

Multiple benefits

 Increased profitability · Increased animal productivity







CN30 - Industry progress

The Australian red meat industry:

LOWERED

it's greenhouse emissions by

59.05% since 2005

EMITS

56.38Mt

CO₂-e per year

down from 133.36Mt CO₂-e pa **CONTRIBUTES**

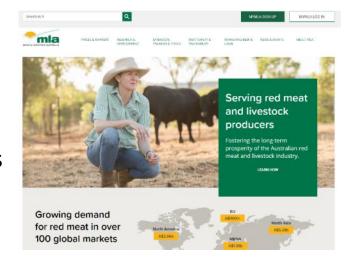
10.7% of national emissions

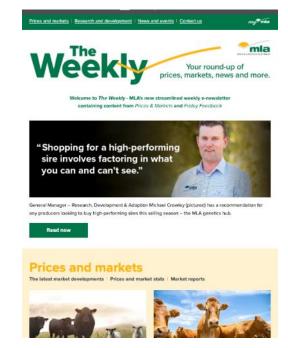
down from 22% in 2005



Stay in touch and up to date

- Extensive stakeholder engagement opportunities
- Face-to-face producer meetings, events and forums
- Annual call for event sponsorship
- Updated website and social media
- Corporate communications such as Annual Report, Annual Investment Plan, State of the Industry report
- Feedback magazine
- Targeted e-newsletters
- Media coverage (newspaper, radio, TV, online)
- Dedicated call centre









Become a member of MLA

MLA members receive:

- Feedback magazine stories on your industry in your letterbox five times a year
- Latest market news, on-farm tips and events info: *The Weekly* newsletter
- Have your say...vote at MLA's Annual General Meeting
- Invitations to events throughout Australia.

Membership is free



mla.com.au/membership





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