





The Australian experience with animal RFID systems

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**Animal Standards Unit** 





#### Why?

- Exotic disease control
- Food safety
- Endemic disease control
- Market access

Australia exports over 60% of its beef production.





#### **NLIS** Implementation

- Commenced in the State of Victoria in early 1999
- The two main drivers were the need to trace cattle following chemical residue detections and the need to have a 'whole of life' system to support assurances about 'HGP Freedom'.
- Phased in nationally on a mandatory basis from 2002
- NLIS is now a mature system.
- Successful because industry and Government have worked in partnership during implementation





#### **Crucial Components**

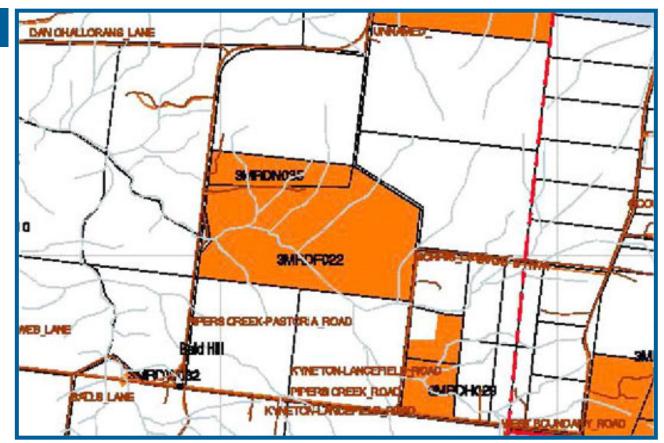
- Each State maintains a register of cattle properties (premises)
- Each property has a Property Identification Code (PIC)
- RFID ear tags / boluses for individual animals
- RFID hardware and software to read (scan) and record RFID devices.
- National database





#### PICs are linked to land

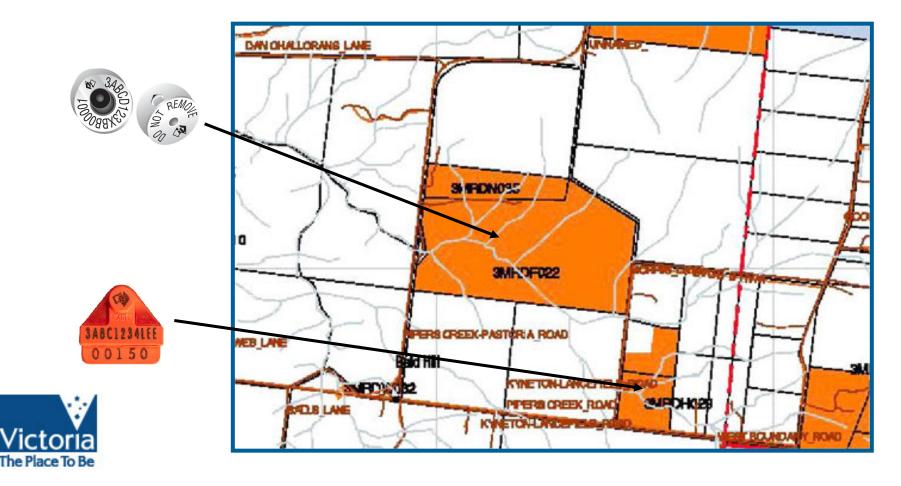
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# PICS

#### NLIS Tags are allocated to PICs





#### **NLIS Tags**



 NLIS Breeder Tags (White): used to identify cattle on their property of birth. ALL cattle must be identified with an NLIS tag before they leave their property of birth.

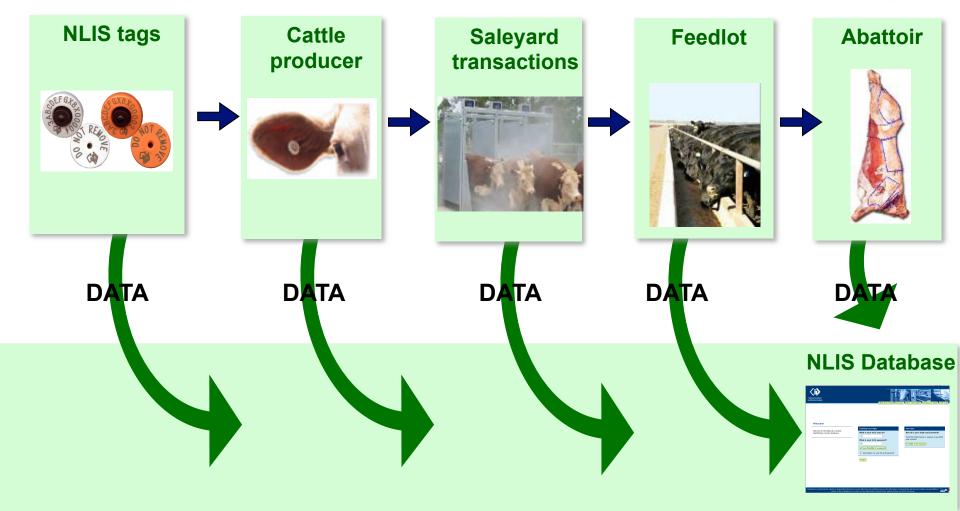


 NLIS Post Breeder Tags (Orange): used to identify introduced cattle not already identified with a NLIS tag, e.g. tag torn out.



#### How does NLIS work?

All cattle movements are recorded on the NLIS Database.





#### **NLIS** Database statistics

- On average the NLIS Database receives between 90,000 – 120,000 cattle movement records per day
- 99.5% of transactions are received electronically, typically within 24 hours of the movement



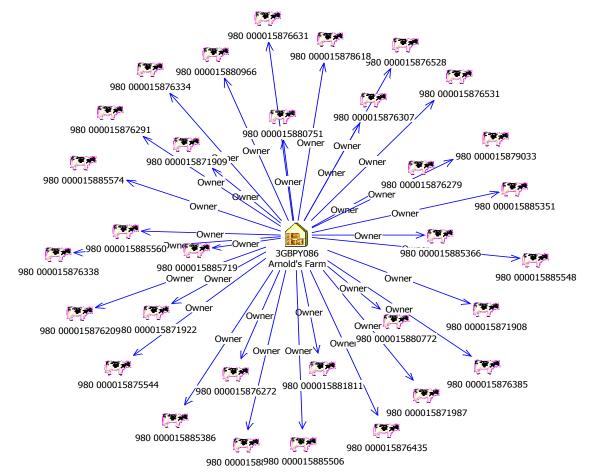


#### Traceability expectations

- System must facilitate traceback of a suspect animal and traceforward of all companions within 24 hours for movements within the previous 30 days. Currently, this can be achieved within 2 hours.
- System must facilitate traceback over the life of a suspect animal and traceforward for all companions within 48 hours. Currently, this can be achieved within 4 hours.

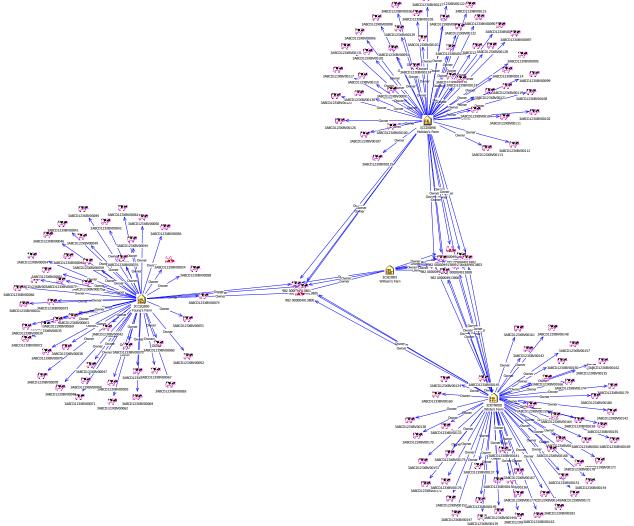


#### Taking it to the next level



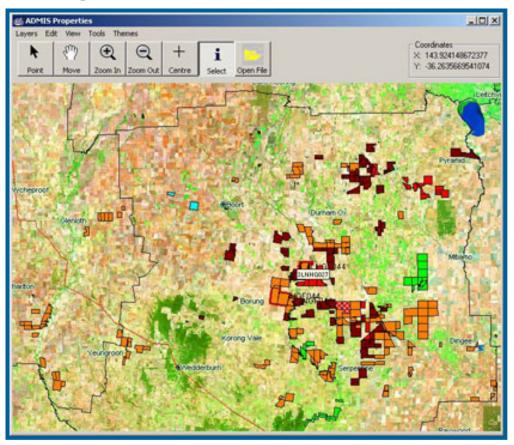








#### Visual overlay





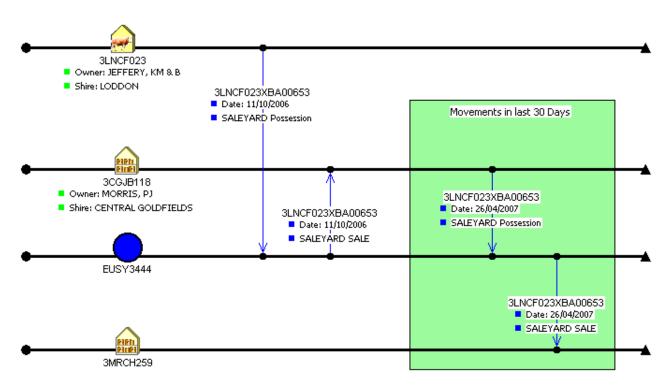


#### Timeline Review





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#### Overcoming the obstacles

- Communication with all levels of the industry.
- Basic understanding of technology
- Human factors...# 1 reason for failure is hardware was not turned on.
- Effective compliance monitoring.
- The 'plateau' factor.
- Review, review, review and then review.



