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# Why eID in the Australian sheep industry?

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**SHEEP AND GOAT**  
**TRACEABILITY TASK FORCE**



## Ground to be covered today

- Systems that define our capacity to export
- Pathway to today
- Why we need efficient, accurate traceability systems.



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# About Sheep Producers Australia

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**Sheep Producers Australia is the national peak body representing Australia's 20,000 sheep meat producers.**

Our producers work hard, and we do too to enhance the productivity, profitability and sustainability of the sector. We do this by:

- advocating on behalf of producers
- monitoring investment of producer levies
- engaging with our members
- consulting with industry and sharing important information and solutions
- improving the understanding of the key issues facing Australian sheep producers.



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# Australia's greatest strategic advantage

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The ability to **produce** and **export** more than **\$80 billion worth of food and fibre annually**

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Feed 3x our population

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Exports represent **70% of the total value of Australia's agricultural production**, with the remaining 30% consumed domestically



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# The Australian Sheepmeat industry

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Exports worth over \$4.5 billion

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Over 9% of the total red meat industry turnover of \$75.4 billion

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Export ~70% of lamb and ~90% of mutton produced



RED MEAT UPDATES  
TASMANIA

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# Australia's biosecurity and traceability systems are critical infrastructure

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- The value of what we produce is defined by our capacity to export.
- The value of our strategic advantage is protected by Australia's biosecurity and traceability systems.

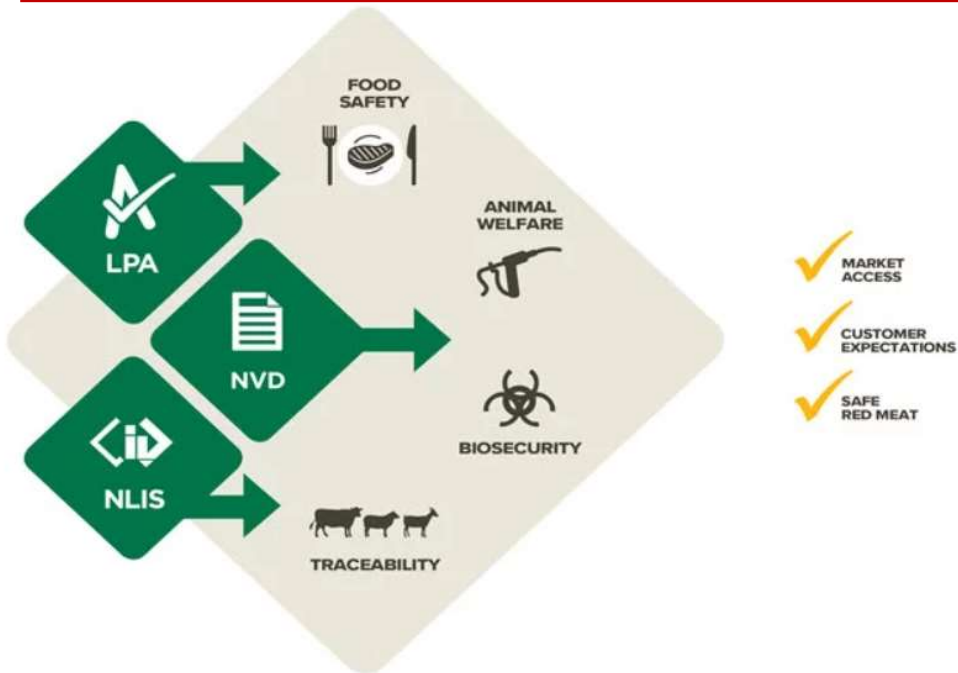


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# Market access and Australia's reputation



- Opportunities for growth are largely found in overseas markets.
- Freedom from significant animal diseases, chemical residues, and verifiable traceability underpins the international perception of Australian livestock products.
- This influences less tangible export market factors, such as marketability and price.

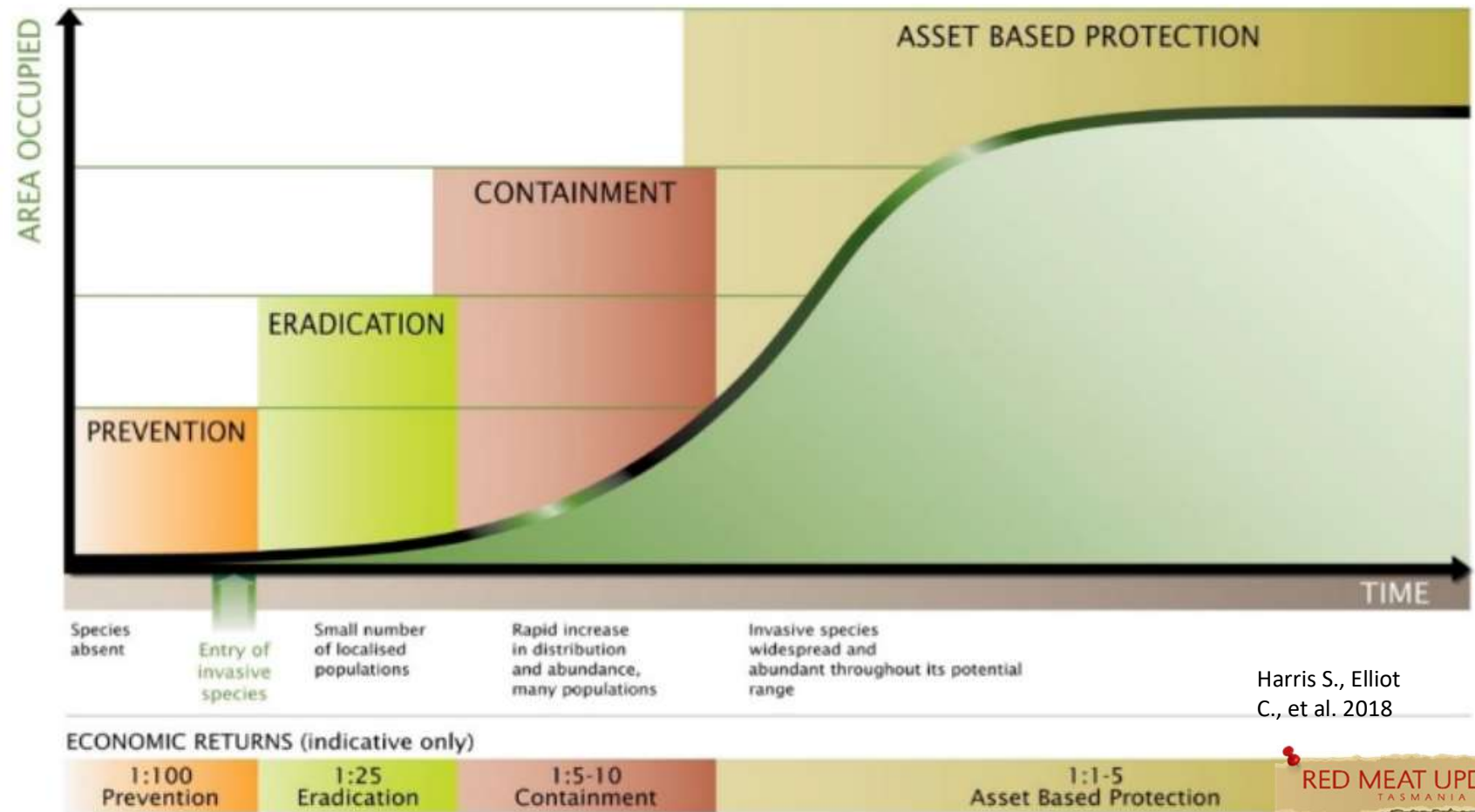


# Biosecurity and traceability is risk management

GE

The difference between a large and a small outbreak depends on **time to detection** and **speed of spread**

Government and industry **both have ownership** of the system **and obligation** to support it.



Harris S., Elliot C., et al. 2018

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# It's a system, not just an ear tag

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Components of **Livestock Traceability** – we need them all

**Livestock:** cattle, buffalo, sheep, goats, pigs, horses, donkeys, South American camelids, camels, poultry, emu, ostriches.

**Traceability:** from property of birth to point of death, slaughter or export.

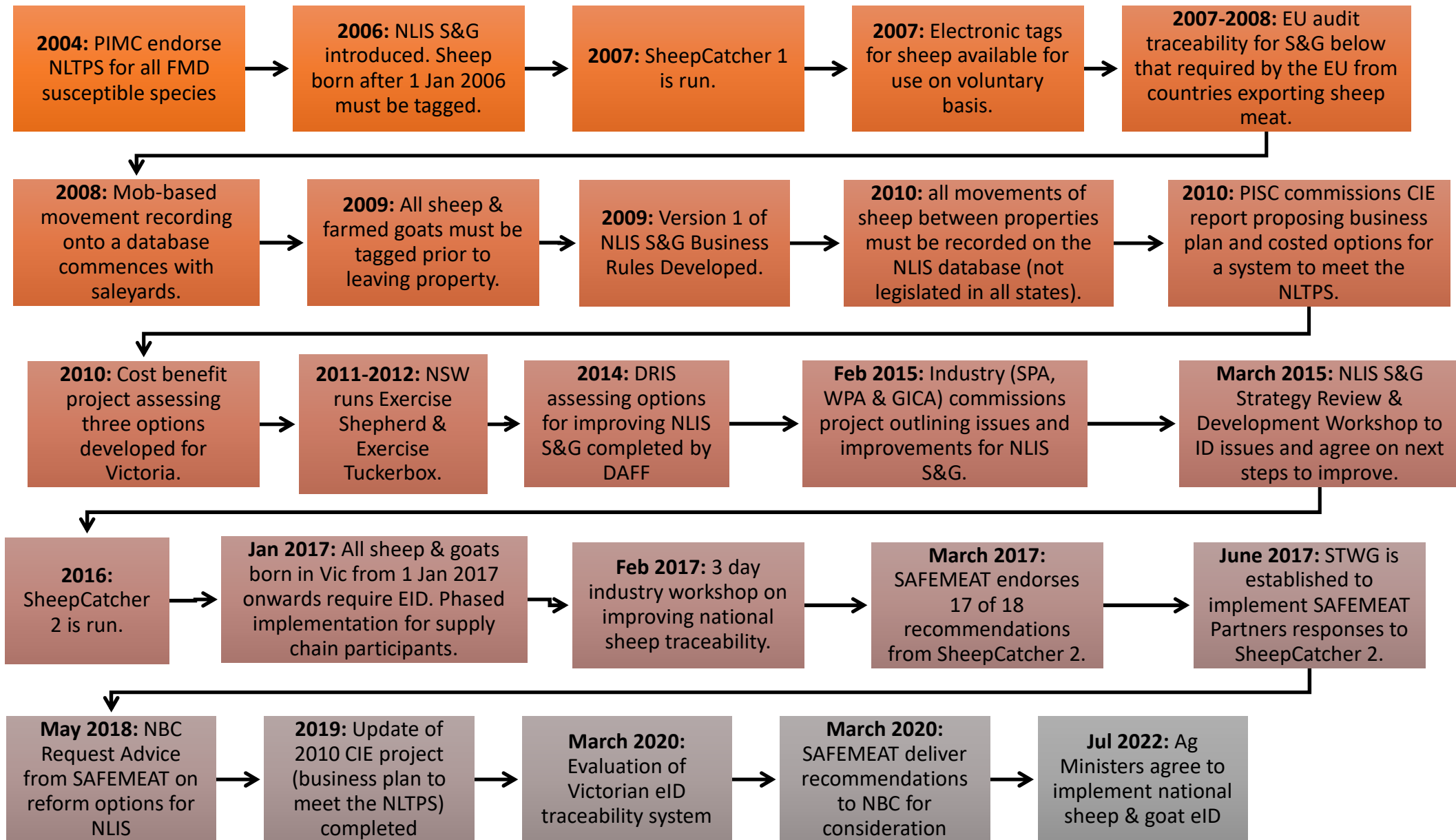
1. **Owner registration** → anyone who owns livestock (commercial or otherwise)
2. **Property registration** → Property Identification Code (PIC) allocated to each property / owner with stock
3. **Accredited identification** for livestock applied by the correct age / prior to leaving property
4. **Movement documentation** – paper or digital, when stock leave a property
5. Central **NLIS database for recording movement** of stock onto a new PIC within 48 hours of arrival.

## Timeline to today

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- 1999 – decision to introduce individual electronic identification (eID) for cattle as part of the National Livestock Identification System (NLIS) to meet EU requirements.
- **2004** – mandate eID and movement recording on the central NLIS database for cattle and buffalo.
- 2006 – mandatory mob-based movement (MBM) recording for sheep & goats.
- **2016 – 2022** – ongoing monitoring of sheep traceability and ability to enhance the existing system; assessment of availability / reliability of infrastructure and technology to move towards eID.
- 2020 – evaluation of the Victorian system in transition through saleyards and processors with visual or eID; real time comparison 70% v 99%. Only one week, but indicative of what we could **achieve or risk**.
- 2022 – FMD in Bali, closest threat in recent history; Agricultural Ministers agree to mandate eID.
- **2025** – mandatory individual eID for sheep & goats born from 1/1/25.







# Assisting industry with the change to eID

## TOP 5 COMMON CONCERNS:

- 01 Cost and funding
- 02 Technology availability (eID tags and tag readers) and implementation within the timeframe
- 03 The NLIS database and its ability to handle the volume of transactions and increased users
- 04 Additional work for participants
- 05 The need for new skills to be able to use the technology

- Recognise all the concerns and questions.
- Address those concerns – the system was not designed without consideration of the practical application.
- Recognise the time required for processing change.

*#1: the reason for change must be clear.*

**Primary aim:** generate the most complete and accurate movement data set to maximise the potential rate of response.

When things go wrong, you will want someone to fix it.

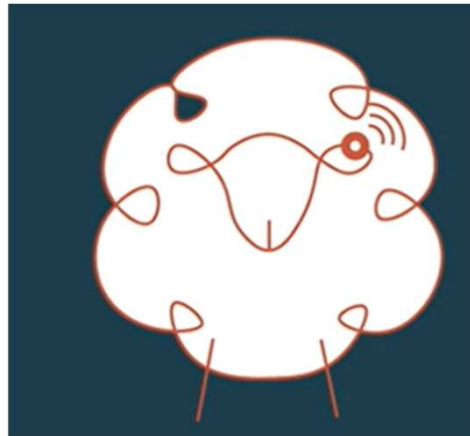


So here we are....

## Individual electronic identification and traceability

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We are here



FMD is fast... eID is faster

The time to contain a disease is reliant on the rate of traceability available. As a component of the whole system eID helps us to trace specific stock, and know which others had contact with them, improving our rate of detection, containment and response.



## **SHEEP AND GOAT TRACEABILITY TASK FORCE**

### **SGTTF – Sheep and Goat Traceability Taskforce.**

Temporary committee created by the NBC to:

- oversee the national implementation of eID in sheep and goats;
- to advise Senior Officials and Ministers.

SGTTF objective to generate confidence in

- what each participant needs to do,
- when to do it
- where to easily find the assistance to show them
- how to do it.

The program aims to be one of consolidation, consistency, recognition and easy access..... For producers and the wider industry.





# The clear reasons for eID

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## RAPID TRACING WITH eID



### eID

1 hour  
312 cattle  
120 properties  
5 states

### Visual ID

3 days  
74 sheep from one  
property

**Primary aim:** generate the most complete and accurate movement data set to maximise the potential rate of response.

**Private and Public good:** assures consumers / markets of food safety to support ongoing trade – for an individual business AND the country as a whole

**Benefit:** visibility of unintentional errors and stock movement → greater traceability integrity than a mob-based or visual system, further improving the rate of response.



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# FMD in the UK, 2001

**19 Feb:** The first case was detected at an abattoir; an 8km radius stock movement ban.

**21 Feb:** EU bans export from UK of any livestock, meat and milk products.

**1 Oct:** **2000 premises and 6 million head** culled

- 4 million (with / without disease) for disease control
- 2 million for welfare reasons.

Outbreak lasted **221 days**

- 6.45 million animals were culled
- Movement restrictions within UK into **2002**
- £5 billion loss to wider industry and society;
- Impact on mental health, agriculture generally and rural communities

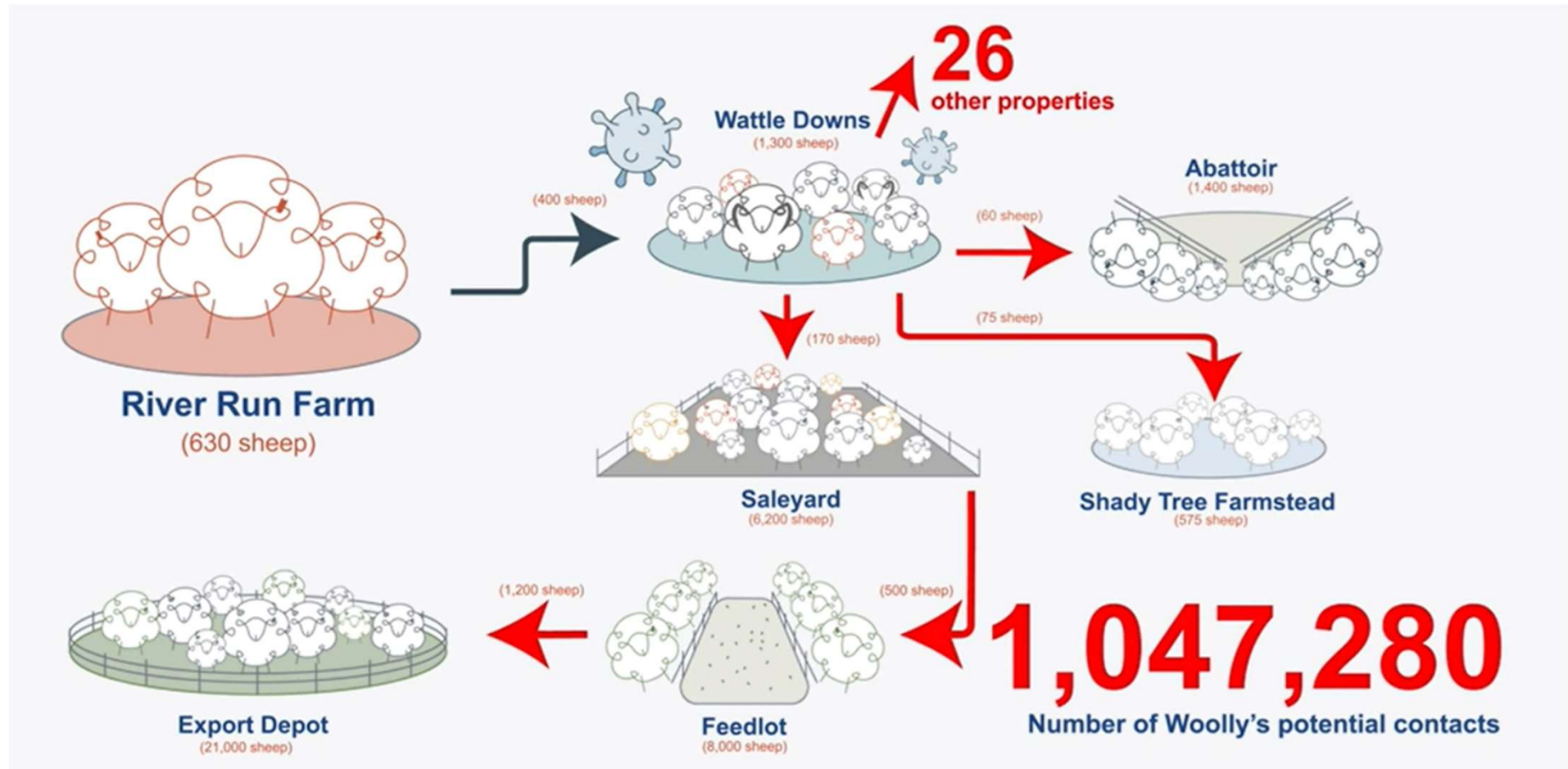
**FMD in the UK, 2007 – rapid response**

- **81 premises**
- Rapid containment, control and eradication

*(Source: World Organisation for Animal Health,  
Reflections on the Foot-and-Mouth Disease Epidemic of 2001: a United Kingdom Perspective)*

# Tracing with mob-based movement

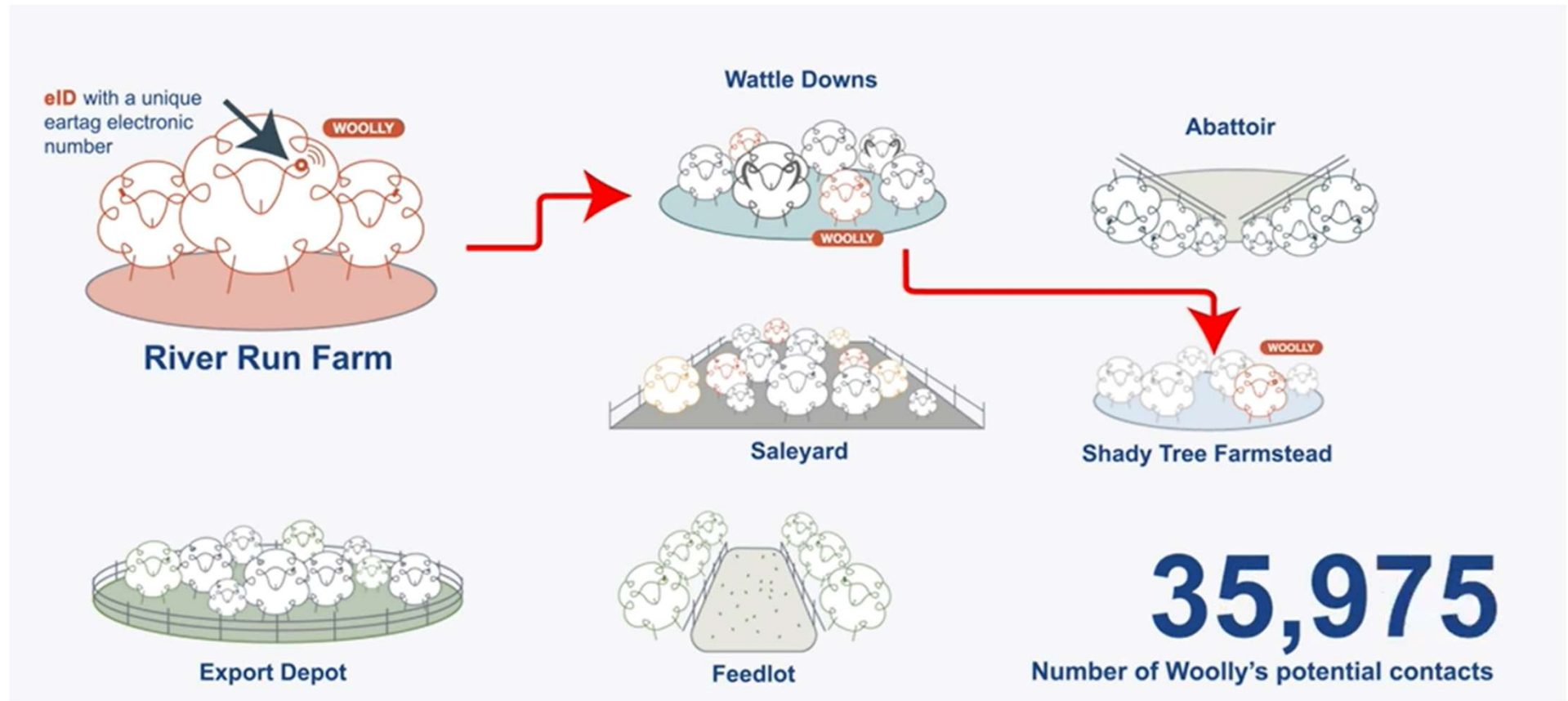
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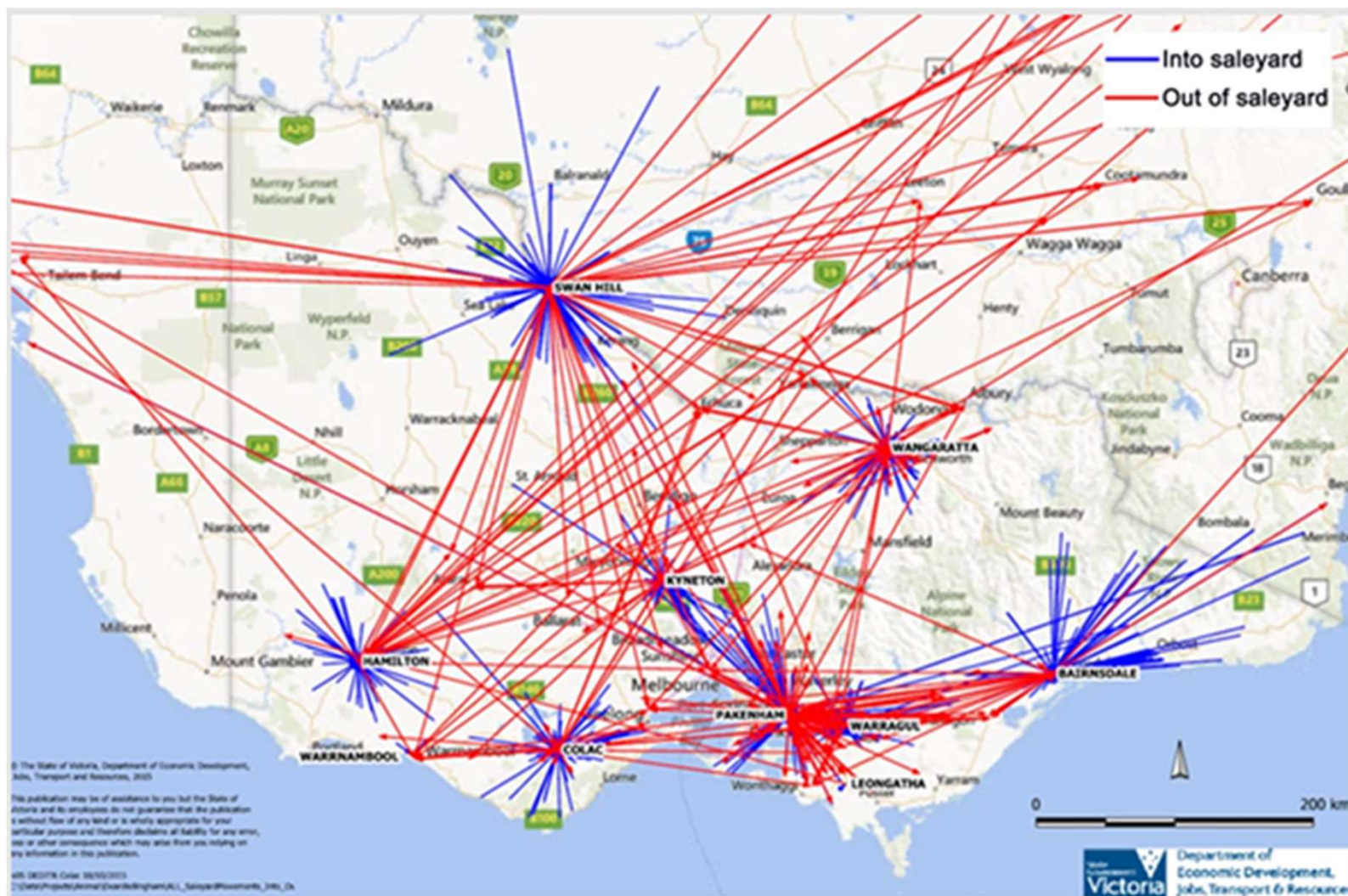


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## Tracing with individual electronic identification





Stock movements into and out of saleyards shows local source & extensive distribution of destinations of stock....in one day!

Credit: Department of Economic Development, Jobs, Transport & Resources and Agriculture Victoria.



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## BSE in Canada, 2003

**20 May** – **ONE animal** detected with BSE in Alberta, largest cattle producing province in Canada

**Immediate closure** of all export markets, including the land border with US, for all live cattle and beef products

Industry in immediate crisis -

Borders shut for over 1.5 years

Losses of **\$11 million per DAY** in direct financial losses

Does not include multiplier effects on national economy or in rural communities.

*Title: Managing an Industry in Crisis: BSE in Canada*

*Authors: Jared G. Carlberg & Derek G. Brewin, Department of Agribusiness & Agricultural Economics, University of Manitoba.*



# Organochlorine pesticide residues

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## Australia – 1987

Organochlorine (OC) residues detected in beef exported to the US → Market closure that took 20 years to regain access to.

### OUTCOMES:

- Banning of OC chemicals previously used in potato crops, corn, cotton, citrus, tobacco and apple orchards
  - Management plans on affected paddocks to avoid grazing
  - Be aware of other potential risk sites on farm, like old shower dip sites, old termite control at base of power poles
- .....Creation of the **National Residue Survey** (NRS)

# Australia's markets demand that meat is free of unacceptable chemical residues

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## Heavy metals

- Arsenic
- Lead
- Cadmium
- Mercury

## Ag & Vet

- Anthelmintic – drenches, backline
- Hormones
- Antibiotics
- Organochlorine pesticides

- Maximum Residue Limits (MRL) are the highest legal limits for *agricultural and veterinary chemical residues* meat and meat products set to protect the health and safety of consumers. ***Variable limits amongst international markets.***
- The National Residue Survey conducts **regular random testing** at meat processing facilities, abattoirs.

## Tracebacks –

- Detected, but below level : investigate source to find others which may have higher levels.
- Volative – MRL + : ***IMMEDIATE RESPONSE; PIC and processor shut down, quarantine until sorted. Find product in or potential into market.***

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# Residues are not contagious...but sheep jump fences



Paint on enamel baths – 380,000ppm

eID enables saleyards and processors to **identify correct PIC of vendor / buyer and animal's life history** – *even if it has jumped a fence.*

A residue is not intentional, but not impossible.  
How many of these images are familiar?

**Lead** – various risk sources. Anything over 3ppm is a risk to livestock. Paint, batteries, sump oil.

**Cadmium** – risk if stock access fertiliser in sheds, spills, paddocks.







Sheep chewing paint off shed which has high levels of lead (74,202 ppm).



Old oil drums, filters, sump oil - stored neatly or at the farm dump, all pose a risk if stock can access.



Teeth marks of sheep on the side of the field bin.  
Lead levels on paint very high.





## Biosecurity, market access...but what about you on your farm?

Traceability data is collected under State regulation for biosecurity, food safety and market access.

But there ARE benefits for individual producers **every day**:

- surety of vendor getting paid for the product / number / weight / grade they consign
- surety of buyer taking home the stock they paid top dollar for
- *surety of tracing stock back to the correct property/ies and not quarantining the wrong producer or chasing the wrong cohort.*



Chamberlain tractor paint:  
Lead level 103,631 ppm

## Top three take home messages

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1. Traceability will continue to evolve in parallel with technology and need.
2. Primary benefit of eID is heightened biosecurity response capability. Second greatest benefit is visibility of unintentional errors and stock movement → greater traceability integrity than a mob-based or visual system, further improving the rate of response.
3. The actions of an individual can impact the individual, the industry and the country.

## Tools and resources

### The SGTTF Resource and Support Directory



<https://www.sheepproducers.com.au/national-traceability>

Access to resources to understand and perform all requirements for NLIS Sheep and Goats according to your need.

Searchable by state / territory and by industry.

**To find the resources or support you require:**  
Select the **state or territory** that you operate in, or **your industry**, to access information specific to that choice. While the system is being nationally implemented, there may be slight differences between locations in the implementation timelines and legislation.





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