Australia's National Livestock Identification System (NLIS)

3 June 2026

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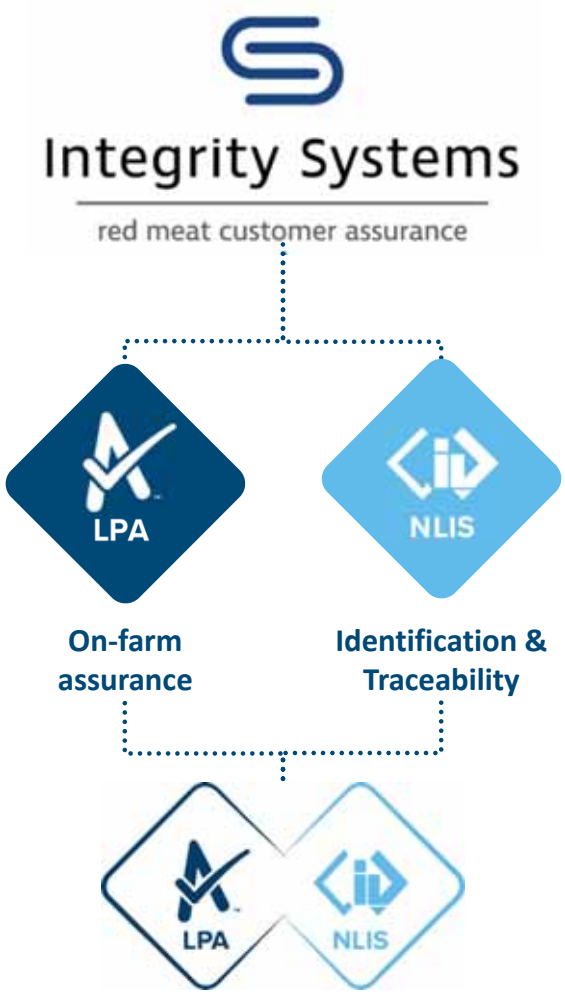
NLIS

Australia's red meat integrity system – our key to global trust

- Australia leads the world in red meat integrity systems
- Integrity underpins quality, safety and market access
- Trust drives competitive advantage and price premium
- NLIS is a mandatory legal requirement
- Operating since 1999

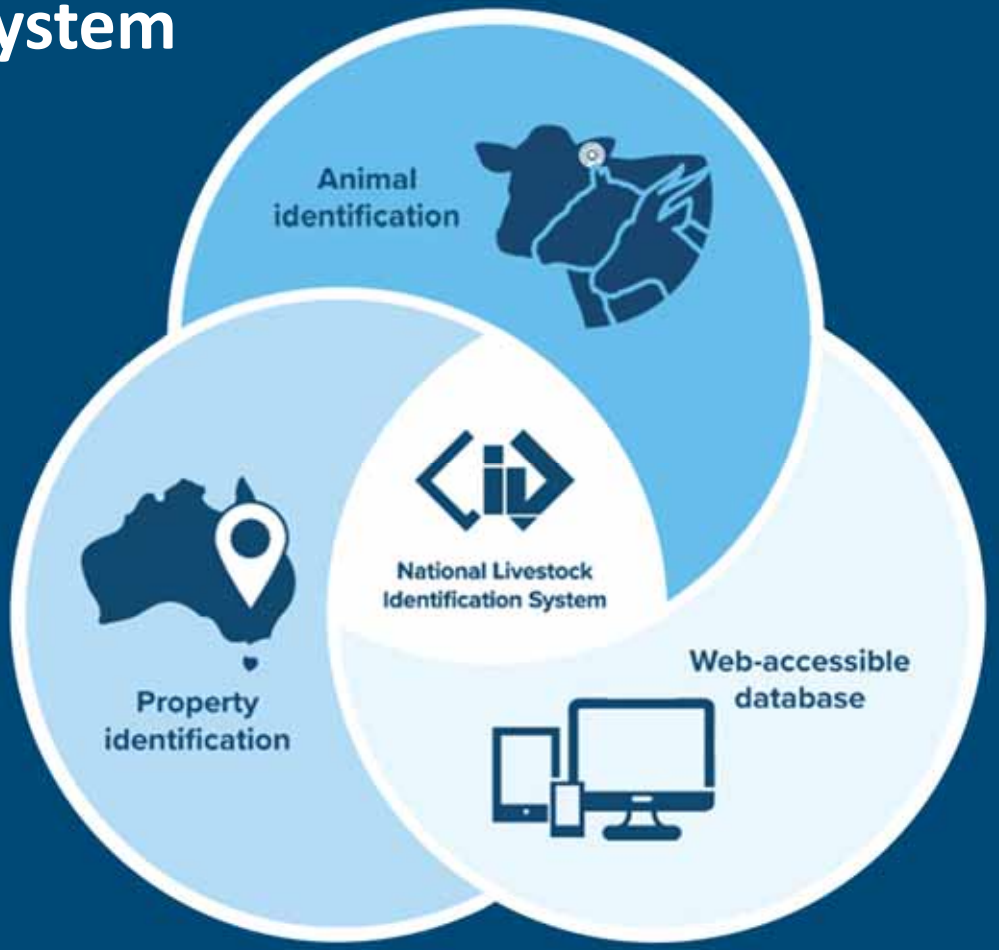
About us

- Administer the NLIS Database
- Approve all livestock identification used in the NLIS and monitor quality of supply
- Support industry and government with NLIS activities
- Also run the quality assurance programs for farms that connects into NLIS.
- Reporting, improvements, digital tools, communication, education, research, marketing.



National Livestock Identification System (NLIS)

- All physical locations are identified by a Property Identification Code (PIC)
- All livestock are identified by a species-specific NLIS approved ear tag/device
- All livestock location data and movements recorded in the NLIS database



National Livestock Identification System

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Lifetime Traceability for cattle, sheep and goats

1. Cattle

2. Sheep and lambs

3. Goats

Property Identification Codes

- Eight-character code allocated by state or territory government and stored in the NLIS database
- Farms, feedlots, saleyards and processors – all locations need a PIC

Why is this important?

- Required to move livestock on and off a property

PIC Statuses

- PICs can be assigned a status in the NLIS database to indicate market access or contamination risk

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NLIS Database – how it works

Receivers of livestock must record movements in the NLIS database within 2 business days of arrival

1	2	3	4	5	6
PIC registered Location in NLIS	**Producer orders eIDs** From accredited supplier	**eIDs uploaded to PIC** By supplier, then posted	**eIDs applied to animals** Device stays with animal for life	**Animal moves** eID transferred to new PIC	**eID retired** At processing / slaughter

180M+

animal records in the NLIS database

Cattle • Sheep • Goats

Mandatory lifetime traceability for all three species

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Animal identification

- All cattle, sheep and goats must be identified with an NLIS approved eID before moving off a property
- Device remains with the animal for its lifetime
- Low frequency Half-Duplex RFID technology
- All sheep and goats will have eID from 1 January 2027 to match cattle.

RFID & NLIS ID

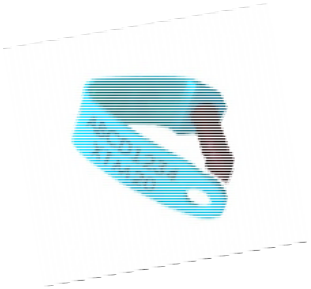
RFID - coded onto chip

9	0	0		0	1	2	3	4	5	6	7	8	9	9	8
Manufacturer code			Space	Unique serial number											

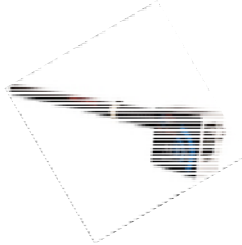
NLIS ID - printed on tag

3	A	B	C	D	1	2	3	X	K	V	0	0	1	1	3
Property Identification Code (PIC)								Manufacturer	Species	Year	Serial number				

Linked together in the NLIS Database



Character	Description	Value
1 – 8	PIC of Issue	The 8-character PIC of the Property to which the technologies are issued.
9	Manufacturer Code	The Manufacturer Code assigned to each Supplier by the Program Administrator.
10	Technology Type Code	See Table 2a.
11	Year of Manufacture Code	See Table 2b.
12 – 16	Serial Number	The first character can be a number or a letter, except O and I which cannot be used. The remaining 4 characters shall be numbers.



RFID Coding

Table 3: 64-bit RFID Transponder encoding

Bit number	Description	Value
1	Flag for animal (1) or non-animal (0) identification	Must be 1
2 – 4	Retag counter	Must be 0
5 – 9	User information field	Must be 0
10 – 15	Reserved field	Must be 0
16	Flag indicating the existence of a data block (1) or no data block (0)	Must be 0
17 – 26	Manufacturer code	Manufacturer code as issued by ICAR assigned for use specifically for that model
27 – 64	National identification code	In combination with the ICAR manufacturer's code, forming the Transponder's unique number.

Table 2a: Technology Type Codes

Species	Technology Type	Code
Cattle	Breeder ear tag	B
Cattle	Breeder rumen bolus	C
Cattle	Post-breeder ear tag	E
Cattle	Post-breeder rumen bolus	F
Sheep	Breeder ear tag	S
Sheep	Post-breeder ear tag	T
Goats	Breeder ear tag	K
Goats	Post-breeder ear tag	L

Animal Identification

- If a device falls out or breaks a ‘post-breeder’ device applied if animal is no longer on its property of birth
- Can link a lost/broken device in the NLIS to maintain traceability
- Cattle – white & orange
- Sheep & Goats – year of birth & pink colours

Year of birth tag colours for sheep and goats

COLOUR	YEAR	YEAR		
Yellow	2021	2029	**PINK** post-breeder devices must be pink	**Year of birth colours** are mandatory in WA and recommended in other states/ territories
Red	2022	2030		
Sky blue	2023	2031		
Black	2024	2032		
White	2025	2033		
Orange	2026	2034		
Light green	2027	2035		
Purple	2028	2036		

Breeder devices are used for animals born on your PIC – white for cattle, year of birth colour for sheep and goats.

Post breeder devices are applied to animals when they are no longer on their PIC of birth – orange for cattle and pink for sheep and goats.

NLIS Approved Electronic Identification (eID) for cattle

NLIS Approved Electronic Identification (eID) for sheep and goats

LEADER MULTIPIN
(RED CAP)

LEADER
MULTITRONIC

ZEE TAGS
TAGFASTER RFID

DATAMARS TAGFASTER with
TRANSPONDER

ENDURO TAGS
COMBO 2

ALLFLEX
LIGHTWEIGHT

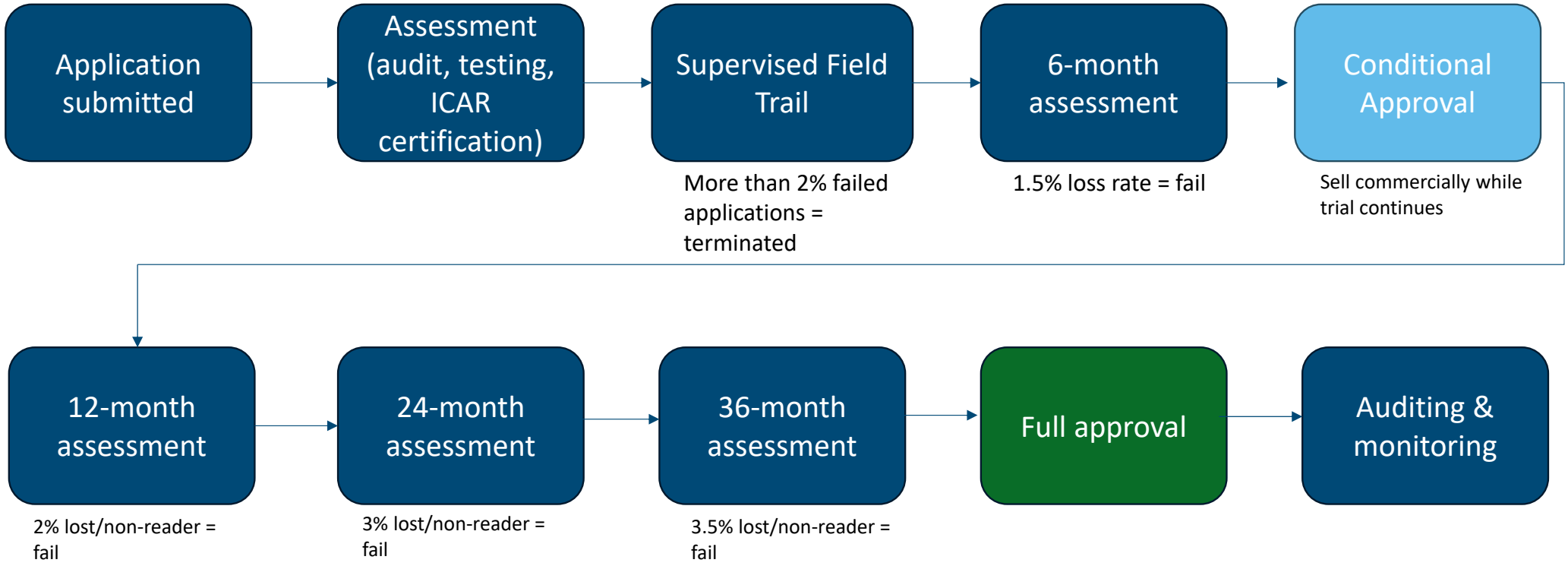
ALLFLEX RAPID

ZEE TAGS FET RFID

SHEARWELL ASET

DATAMARS GOAT
LEG BAND

Approval of livestock identification



Recording livestock movements in NLIS

- Users can create an NLIS account
- Person receiving livestock is responsible for the transfer
- Saleyards, feedlots & processors will complete the transfer as they are receiving
- Record movement document serial number in transfer

Legislation requires that the receiver of the livestock completes the transfer on the NLIS database.

Penalties imposed by government for failing to complete these transfers as required.

Losing lifetime traceability

PIC 'A' **PIC 'B'** **PIC 'C'**

Movement is **not** recorded on the NLIS database.

Movement **is** recorded on the NLIS database. To enable this transfer, NLIS retrospectively fills in the 'gap' between PIC 'A' and PIC 'B'. *'Warning' message generated to indicate the loss of lifetime traceability status.*

Life history of QIIR0116ZBN00024

Current Status

Current PIC	Lifetime Traceable	LossOfLT	In Saleyard	Extended Status
QCAY0044	N	Lifetime traceability has been lost due to the device being transferred from an incorrect PIC	No	

Tag Information

RFID	Upload ID	Tag IssueDate	Tag Colour	Tag Type	Manufacturer	Tag Upload Date
942 000026786922	43180393	13/04/2017	W	B	ZeeTags	13/04/2017

Transfers/Sighted

Upload Date	Event Date	Transaction Type	Source	Destination	Vendor Declaration	Upload ID	User ID	Deletion Upload ID
01/09/2021	15/06/2021	SYSTEM TRANSFER	QIIR0116	XXXXXXXX	1234567	83920712	4TPTYTSZ	
01/09/2021	15/06/2021	SYSTEM TRANSFER	XXXXXXXX	QFNB0070	1234567	83920712	4TPTYTSZ	
01/09/2021	16/06/2021	Producer Transfer	QFNB0070	QCAY0044	24515228	83920712	4TPTYTSZ	

National Livestock Identification System (NLIS) Database Uplift

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Why an uplifted NLIS Database is needed

- The NLIS database underpins market access, food safety assurances and is a key pillar in Australia's defence against potential outbreaks of exotic diseases
- Current NLIS database platform is ageing - 24 years old
- Enhancements are needed to ensure the NLIS database is future-proofed for decades to come
- Improve user experience

What will it deliver for Australia

The **same core functionality** but **in a modern way**

Easier to use and navigate (even if you don't use regularly)

Simplified processes to get the job done faster

Transactions **easier to access and perform**

Easier **integration with external systems**

Automated warnings and critical **notifications**

THANK YOU

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