

Cattle identification and traceability in Scotland

Partial Business and Regulatory Impact Assessment

April 2024

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1. Title of Proposal

Cattle identification and traceability in Scotland

2. Purpose and intended effect

Background

All cattle in Scotland, other parts of the UK and many other countries, are required to be uniquely identified with approved ear tags and their movements recorded throughout their lives. This is essential for disease control, prevention, eradication, and the protection of public health. The system is known as identification, registration and movement (IRM).

Mandatory use of electronic identification (EID) has been a longstanding industry request and has been supported through the ongoing funding of the Bovine EID pilot which has compared both Low Frequency (LF) and Ultra High Frequency (UHF) technologies.

Identifying cattle with an electronic tag on its own does not improve on current traceability requirements. For the successful introduction of bovine EID, the relevant electronic data systems need to be in place to record this data centrally. This is known as electronic data transfer (EDT).

The transition from the Cattle Tracing System (CTS) in October 2021 to ScotEID operated ScotMoves+ system for cattle births, deaths and movement recording in Scotland was a key milestone towards the future implementation of Bovine EID in Scotland.

Objective

- To introduce the use of EID enabled ear tags to identify bovine animals.
- To remove the requirement that all bovine animals be issued by way of a paper passport when identified using EID
- Alignment of holding register timescales and centrally recorded information
- The introduction of an online holding register

Rationale for Government intervention

The Bovine EID Industry Stakeholder Working Group have made clear to SG Officials and through correspondence with the Cabinet Secretary that their preference is that EID is mandated and that it be introduced using UHF encoded transponders embedded within the 'primary' ear tag. For the request to be progressed, any future changes will be subject to a full public consultation and changes would also need to be made to domestic legislation.

The completion of the ScotEID multi-species relational database to include all cattle birth, deaths and movement data was key for the EDT element and future introduction of Bovine EID.

3. Consultation

Within Government

The following government agencies and departments have been consulted in the preparation of the Business and Regulatory Impact Assessment (BRIA).

Rural Payments and Inspections Division (RPID).

Public Consultation

We have consulted with the Bovine EID industry led working group which is made up of various stakeholder organisations. The formal consultation will run for 12 weeks. See the list of organisations below.

Business

- National Farmers Union Scotland (NFUS) (Chair)
- Scottish Association of Meat Wholesalers (SAMW)
- Scottish Dairy Cattle Association (SDCA)
- Institute of Auctioneers and Appraisers in Scotland (IAAS)
- Scottish Beef Association (SBA)
- Quality Meat Scotland (QMS)
- Scottish Crofting Federation (SCF)
- Scottish Agricultural Organisation Society (SAOS)/ScotEID
- Markets and abattoir operators

4. Options

Option 1 – Mandate the use of UHF as a Primary means of identification for all new-born cattle in Scotland and allow the voluntary use of UHF for animals previously identified (historic herd) until a fixed date or ‘event’ (preferred) (UHF for all)

This option would mean that all new-born animals in Scotland would have a primary EID tag fitted upon initial identification utilising UHF technology.

Keepers of animals born prior to and identified before EID was mandated for would have the option to either a) remove and replace the existing conventional primary tag with an EID tag b) replace any lost/missing primary ear tag with an EID tag or c) do nothing, continue to use conventional primary ear tags. To retain existing identification numbers, it is proposed that for the historic herd, these animals be identified with a UHF chip which has been encoded using the ‘USDA’ standard. This is the standard currently used in the Bovine EID pilot within Scotland. This standard does not affect animal traceability, is compatible with existing I.T. systems used in other parts of GB and means that the existing identification number can be retained,

something which cannot be achieved under ISO (International Standards Organisation) standards due to the constraints with legacy IT systems because of how an identification number may be constructed.

Further options for consideration are that a date be set where voluntary tagging for the historic herd becomes mandatory and/or that the use of EID tags in the historic herd also be 'event driven' i.e. where an animal moves from a holding and changes keepership.

The use of UHF in Scotland would have no impact on existing visual only systems as EID tags are distance readable and meet the current requirements of conventional ear tags. The use of UHF would also have no negative impact on systems operated across borders which may utilise LF technology, given that it can coexist with new and existing LF tags.

Option 2 – Mandate the use of UHF as a Primary means of identification for all new-born cattle (only) in Scotland (UHF new-borns only)

This option would mean that only new-born animals would have a primary EID tag fitted upon initial identification utilising UHF technology. Historic animals would retain existing conventional ear tags leading to a 'dual system' whereby a herd of cattle would effectively become 'split' with some retaining 'read-only' visual tags and requiring more handling with others being capable of being read at a distance electronically.

Option 3 – Do nothing (ruled out)

This option has been discounted on the basis that EID will be introduced in other parts of GB, albeit in which form (LF or UHF) we are unsure. The current law of the EU allows for use of EID for official identification, but only if based on ISO 11784 (published by the International Standards Organisation), which utilises LF technology. A separate standard, ISO 6881 for UHF has been developed and was published in December 2023.

Sectors and groups affected

The following sectors are likely to be affected by the proposals:

- Cattle keepers
- Markets
- Abattoirs
- Enforcement bodies
- Consumers of beef

5. Options: positives/negatives and cost analysis.

Option 1 – UHF available for all

- Strengthens measures for disease prevention, control, eradication, and the protection of public health.
- The introduction of UHF technology introduces important health and safety benefits allowing longer and wider read ranges.
- Electronic reading and data transfer will reduce the administrative burden on the livestock sector.
- Food processing establishments e.g., slaughterhouses and markets will benefit from a reduction in administration and labour costs.
- Provides a tool to improve on farm management supporting the competitiveness of the livestock sector.
- Online holding register.
- Fraud prevention, genetic improvements, and trade.
- Reduces administration and labour costs, including the removal of cattle passports.
- Voluntary tagging of historic animals reduces keeper and inspectorate burden.

Option 2 – UHF for new-borns only

- Strengthens measures for disease prevention, control, eradication, and the protection of public health.
- The introduction of UHF technology introduces important health and safety benefits allowing longer and wider read ranges.
- Electronic reading and data transfer will reduce the administrative burden on the livestock sector.
- Food processing establishments e.g., slaughterhouses and markets will benefit from a reduction in administration and labour costs.
- Provides a tool to improve on farm management supporting the competitiveness of the livestock sector.
- Online holding register.
- Fraud prevention, genetic improvements, and trade.
- Reduces administration and labour costs, including the removal of cattle passports.
- ‘Splits’ herds with multiple types of ear tags, increasing keeper burden and adds burden to inspectors having to differentiate animals between EID/non-EID.
- Continued costs associated with passport amendments/replacements.

Option 3 – Do nothing

- May mitigate any alignment issues both within GB and other trade partners if we are in step with other GB administrations (provided they choose also to do nothing).
- Persistent health and safety issues.
- Persistent keeper burden.

- Reduced competitiveness in the supply chain both within GB and Internationally.
- Continued administration and labour costs, including the issuing of cattle passports.

6. Costs

Readers

As part of the Bovine EID pilot, all critical control points (CCPs) in Scotland have been fitted with panel readers which are bespoke to each situation. Panel readers are used in CCPs so that multiple animals can be read, for example, when moving through a race at the speed of commerce. It is important to highlight the cost of readers, particularly panel readers, due to maintenance and potential replacement costs.

Average costs of different types of readers are noted in the table below. However, it is also important to note that individual business costs will vary due to size/layout/environmental factors of their respective business. It is also important to note that the use of readers on-farm is entirely at the discretion of the keeper. If they are happy to continue to manually visually read ear tags that is a business decision. Keepers will be best placed to determine whether the size of their herd justifies the cost v benefit to their individual needs.

Type of reader	Average cost
Fixed panel UHF reader for a single file race or cattle crush	£375
Fixed panel LF reader for a single file race or cattle crush	£2000 (More than one may be required)
UHF Handheld display	£710
LF Stick reader	£905 (NB. cheaper handheld LF readers are available but are designed for companion animals and are not suitable for livestock in an often-harsh working environment)
4-port UHF reader with 4 antennae and a Raspberry Pi computer capable of reading multiple animals passing through a passageway or wide race	£1600 (A comparable LF system is not available, due to the cost and complexity of overcoming the lack of anti-collision properties and shorter reading distance)

Ear tags

Cattle keepers are required to ensure that ear tags are attached to all animals on their holdings. When calves are born on a holding they must be tagged within the following timescales:

- Beef Cattle: An approved ear tag should be fitted in each ear within 20 days of birth or before it moves of the holding where it was born before it is 20 days old.
- Dairy Cattle: Must have at least one approved ear tag fitted within 36 hours of birth, with the second ear tag fitted within 20 days from birth. Both ear tags must be fitted before it leaves its holding of birth before it is 20 days old.
- Bison: Are the only exception to the above timescales. They must be tagged within 9 months of birth, but they must be tagged if they leave the holding of birth or when they are separated from their mother, whichever is sooner.

There is no requirement to tag animals that have died before these timescales.

From 1 April 2022 to 31 March 2023, the Livestock Unique Identification System (LUIS) figures show that in Scotland:

- 571,970 'primary' ear tags were issued
- 570,220 'secondary' ear tags were issued
- 138,407 replacement 'primary' tags were issued
- 36,211 replacement 'secondary' tags were issued

The number of cattle registered for the first time on the ScotEID database between those dates was 564,435.

Ear tag costs vary between manufacturer and most keepers will have their own preferred suppliers. As keepers have the choice of which ear tag supplier they use, other factors such as manufacturer special promotions can also come into play. The size of herd that a keeper has can also makes a significant difference.

The table below gives an average cost for first-run ear tags and the 'conventional v EID' comparison.

First Run - Type of ear tag	Average ear tag cost	Average cost of tagging cattle registered on ScotEID April 2022 - March 2023	Conventional pair v EID
Conventional ear tag with secondary flag tag (pair)	£2.02	£2.02 x 564,435 = £1,140,158.70	
Conventional ear tag with secondary button tag	£1.75	£1.75 x 564,435 = £987,761.25	
Conventional ear tag with secondary LF EID flag/button tag	£3.83	£3.83 x 564,435 = £2,161,786.05	
UHF EID Primary* with secondary flag tag	£4.82	£4.82 x 564,435 = £2,720,576.70	+ £1,580,418
UHF EID Primary* with secondary button	£3.48	£3.48 x 564,435 = £1,964,233.80	+ £976,472.55

**Due to there only being two tags available for comparison the costs reflected within the table are higher than expected but based on the average of what is currently available*

Currently if an animal loses one or both of its ear tags, or it becomes illegible, it is a legislative requirement for the keeper to replace the ear tag within 28 days. The average cost of a replacement ear tag ('primary' or 'secondary' and excluding metal fold over) is £2.49. Figures obtained from LUIS show from 1 April 2022 to 31 March 2023 that the total number of 'replacement' ear tags issued in Scotland was 174,618. This comprised of 138,407 replacement 'primary' ear tags and 36,211 replacement 'secondary' ear tags. It is proposed that EID tags should voluntarily be used when replacing the conventional 'primary' ear tag. A future date may be explored where voluntary uptake may become mandatory.

Type of ear tag	No. of replacements x average ear tag cost	Total
Primary conventional	£2.70 x 138,407	£373,698.90
Primary EID tag	£2.85 x 138,407	£394,459.95
		£20,761.05 additional to replace using primary EID tags

**The table assumes that the replacements would be for animals which had been previously identified using conventional primary tags (the historic herd)*

If it were mandated that replacement EID ear tags be used rather than the current conventional ear tags, it is expected that EID would be used in relation to most of the Scottish national herd, which contains around 1,650,000 million cattle, within 4 years.

This 'perfect' scenario is on the basis that:

- a) numbers of first identified animals remain consistent;
- b) numbers of deaths mirror those first identified and are animals identified using a primary conventional ear tag;
- c) replacement tags all relate to animals only using a primary conventional ear tag; and
- d) replacement ear tag numbers remain consistent.

Year	Historic National Herd minus deaths and cattle with EID replacement tags (702,842 per year)	Births – Fully EID (Constant 564,435 per year)	National Herd (based on current figures)
1	1,650,000	564,435	1,650,000
2	947,158	1,128,870	1,650,000
3	244,316	1,693,305	1,650,000
4	0	2,257,740	1,650,000

Passports

All cattle born in or imported into Great Britain since 1 July 1996 must have a cattle passport. This applies whether the cattle are male, female, dairy or beef and applies even if the animal is still on the holding on which it was born. A cattle passport must remain with an animal throughout its life. A keeper must apply for passports within 7 days of the animal having been tagged (a maximum of 27 days in total from the date of birth).

Currently, passports are issued to keepers on behalf of Scottish Ministers by ScotEID. Last year ScotEID issued 564,435 passports to Scottish keepers at a cost of £510,865. Further to that, ScotEID issued 1032 replacement passports at a cost of £20,640 to keepers.

Number of Passports issued to Scottish keepers	Total
564,435	£510,865

Number of Replacement Passports issued to Scottish keepers	Passport Replacement cost	Total
1032	£20	£20,640

With the introduction of bovine EID it would no longer be a requirement for cattle to be accompanied by a paper passport. Passports would exchange between keepers electronically and lead to significant savings not only in terms of production costs but also the administrative burden when transferring passports between keepers. The ScotEID system, however, would still allow keepers to print off a document which would contain the details held on the passport if required. Discussions around what documentation, if any, would need to accompany an animal when leaving Scotland (cross border) are ongoing.

Time savings & wellbeing

Handling passports represents a significant administrative burden for critical control points (CCPs), which could be reduced by EID. For example, even if only 1 minute per animal was saved, aggregated across all annual movements through marts and abattoirs this would equate to circa 14,000 hours.

This would be in addition to costs savings already offered by improving the ease with which IDs can be read during various routine actions. For example, when moving animals on-and-off of vehicles in loading bays, sorting them into different holding pens and moving them through the ring. Research suggests that this could save around 30% of current staff time, or around 4 minutes per animal, equating to circa 21,000 hours.

Experience with piloting UHF at Scottish marts has also confirmed health and safety gains. For example, a reduction in injury rates of 25 - 50% and lower levels of staff stress and fatigue. This is obviously of direct benefit to individual workers but is also helpful to businesses in recruiting and retaining staff.

Providing training programs and educational resources for keepers, livestock managers, and other stakeholders will be crucial for successful implementation of bovine EID. Costs associated with training sessions, workshops, and technical support should be factored in.

While initial implementation costs and ongoing operational expenses are factors to consider, it is important to evaluate these costs within the context of the potential benefits, such as improved disease control, efficient livestock management, health and safety improvements, time and cost savings and increased market access.

7. Regulatory and EU Alignment Impacts

Intra-UK Trade

Officials do not consider that the use of UHF technology within Scotland will have any impact on current international trade or export agreements, including any future cross border movements of animals across GB.

Full Impact will be assessed under a full BRIA following consultation.

International Trade

Officials do not consider that the use of UHF technology within Scotland will have any impact on current international trade or export agreements, including any future cross border movements of animals across GB.

Full Impact will be assessed under a full BRIA following consultation.

EU Alignment

The use of UHF technology would diverge from current EU law requirements. However, officials consider that it would be reasonable to introduce bovine EID based on UHF technology, particularly following the publication of ISO 6881 which lays down an international standards for use of UHF for animal identification.

Officials also consider that any adoption of the USDA standard as an interim measure for any category of animal would not prohibit the future implementation of either ISO compliant LF or UHF.

Full impacts will be assessed under a full BRIA following consultation.

Scottish Firms Impact Test

This will be completed once the data from the consultation is collected and analysed.

Competition Assessment

Using the Competition and Markets Authority Competition Filter questions we have concluded that the proposals will neither directly or indirectly limit the number or range of suppliers, limit the ability of suppliers to compete or reduce suppliers' incentives to compete vigorously.

Test run of business forms

There will be no specific business forms involved with the implementation of the proposed legislation.

Legal Aid Impact Test

The proposal is unlikely to have an impact on the legal aid fund.

Enforcement, sanctions, and monitoring

- APHA
- RPID
- FSS
- LA's
- ScotEID

Implementation and delivery plan

Following consultation and assuming the responses are favourable we envisage enactment of domestic legislation to implement the necessary reforms.

Post-implementation review

Commitment to review within 10 years

8. Summary and recommendation

Option 1 is preferred at this stage. This option, based on discussions with the Bovine EID Industry Stakeholder Working Group, would deliver most benefit. It would also improve the traceability of cattle in Scotland which will aid in disease prevention, control, and the protection of public health. Adoption of this option is, however, subject to consideration of responses to the consultation.

Summary costs and benefits table – subject to the outcomes of the consultation and in discussion with the Scottish livestock sector, the financial impact of the implementation of bovine EID will be published alongside future measures to implement the final policy.



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The Scottish Government
St Andrew's House
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ISBN: 978-1-83601-046-3 (web only)

Published by The Scottish Government, April 2024

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS1430014 (04/24)

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