Resolving LF-EID cattle numbering in the UK by using ISO's replacement for 11784

1. Compliance with the twin requirements under EU bovine EID regulations for WYSIWYG tags and ISO11784 encoding is forcing each part of the UK to contemplate changing the numbering system for cattle before it can adopt LF-based bovine EID.

2. This has the potential to be a costly drawn-out process. In particular, it is apparent that migration to a new numbering system will require expensive and lengthy modifications to various existing IT systems i.e. the APHA SAM database.

3. A possibly less expensive and disruptive solution to the cattle numbering problem may be available from the new ISO standard that is currently being developed for electronic animal identification.

4. ISO11784 imposed constraints on some pre-existing visual identification systems, which had to be adapted to fit technical encoding constraints from a previous era but are no longer binding (notably physical limits on binary storage: 128bit storage replaced 64bits as a minimum some time ago). The new standard is intended to encompass both LF and UHF-based EID applications.

5. The proposed new standard seeks to cater for all existing visual systems, whether numeric or alpha-numeric, by using the greater storage capacity of modern transponders and allowing considerable flexibility in how transponders are actually encoded. The latter is to be achieved through the use of "National Schemes (NS)" tailored to the specific needs of each country (alongside two default encoding schemes, one of which will be ISO11784). A country may have more than one NS.

6. Reading equipment will be able to automatically and correctly interpret any encoding through a combination of reader-programming and the inclusion of a preamble in the transponder to indicate which particular NS encoding has been used.

7. This is analogous to what already happens under ISO11784 to distinguish between HDX and FDX encoding of LF transponders, but also to the similarly flexible interim UHF encoding standard issued by the USDA in 2016 or indeed to ongoing UHF work by ScotEID. Many existing LF readers could be updated to handle the new encoding.

8. The proposal for the new standard, now titled "ISO/AWI23636: International Numbering for Official Animal Identification Scheme", was accepted in October 2018 and is expected to take 36 months to finalise. This implies that it will be formally available in late 2021, which is perhaps later than might be desirable to introduce UK-wide bovine EID, but, may in fact be no later than can be achieved through adjusting existing IT systems to cope with cattle renumbering, or indeed later than the EU finally implements LF-based bovine EID.

9. The new standard will allow adoption of LF-EID whilst retaining the existing visual identification system, thereby avoiding the cost, disruption and confusion of renumbering.

10. A difficulty with this approach is that the EU will either need to be persuaded to accept the new standard (although the wording of the draft regs does imply some flexibility) or any live exports will need to be renumbered to conform to ISO11784 constraints, but either outcome could be preferable to the cost and disruption of renumbering.