Study on Labelling of products from cloned animals and their offspring

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• tendered study, carried out by external contractor (ICF international) in 2015

Implications for livestock breeding and reproduction
There are four core components of a system capable of supporting the labelling of food products derived from clone offspring:

1. **Ancestry recording in livestock breeding**
   - Needed to facilitate tracing of ancestry and the presence of clones in that

2. **Individual animal identification**
   - Needed to facilitate the recording of clone ancestry on an individual animal basis

3. **Information on cloning status passed forward through the supply chain**
   - Needed to facilitate the appropriate labelling of derived products

4. **A verification mechanism**
   - Needed because a system based on documentation only could be vulnerable to (undetectable) error and fraud
The practice of ancestry recording and the practice of assigning each animal an individual identity vary by species

• There is no compulsory system for ancestry recording in the EU
• Breeding animals are entered in herd books on a voluntary basis.
• There is variation across the EU and by species in the prevalence of ancestry recording
• Rates of ancestry recording, at least for sire and dam, have been estimated:
  - Clone offspring labelling would require recording of ancestry information for all animals and to make this cumulative across multiple generations (as determined by the clone offspring definition adopted)
  - Each individual animal would need an identity linked to its ancestry information and this information passed through the supply chain.
• Current rates of individual identity recording vary:

Source: ICF study, icons from freepik at flaticon.com
In summary for the livestock sector

- Additional operating costs imposed on EU livestock production could be in order of €800 million per year
- Figure could risk rises to more than €10 billion a year if a verification system based on DNA profiles was introduced
- Pig sector and, to a lesser extent, sheep production, would be most affected
- Additional costs would be incurred in EU food processing and manufacture
- Trading partners would also face significant costs in meeting EU requirements
- Upgrades information systems would also be needed – costs that would mostly fall on public authorities

*Ongoing training costs excluded, equine impacts too small to show separately
Implications for the food supply chain

- Considerable investments in traceability and/or segregated supply chains would be necessary because raw material from different animals is mixed (1 pack of butter can contain milk from 10 000 farms)

- Financial impact not quantified in the study (data availability)
Thank you!