

Assessing the future uptake of digital tools and technologies by sheep and goat farmers in the meat and dairy industries









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Factors influencing uptake



Series of stakeholder groups, across the 8 Sm@RT countries

Assessed factors influencing the **rate** and **peak level** of uptake of tools and technologies available to small ruminant farmers.



Using the Adoption and Diffusions Outcome Prediction Tool (ADOPT) *Kuehne et al.* (2017)

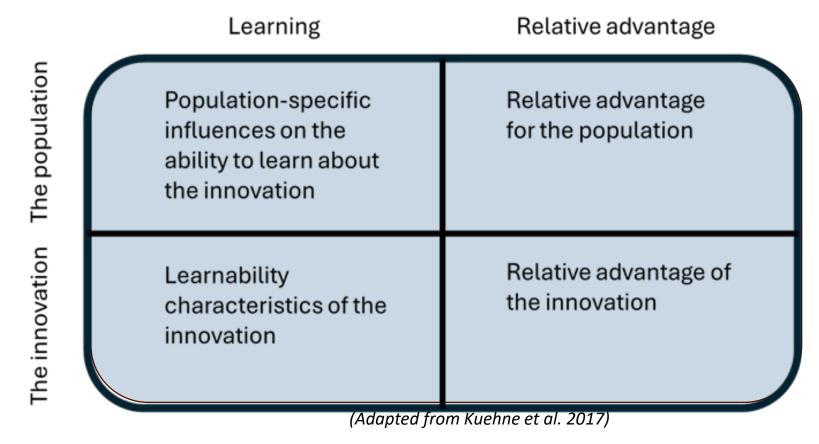
https://adopt.csiro.au/home.aspx



ADOPT process

Sm@RT Sm@ll Ruminant Technologies

22 questions



- the **peak adoption level**
- the time to near-peak adoption

Data collection



Sessions were held around Sm@RT events in each country

Participants - mainly farmers & some stakeholders

All were provided with information on each tool / technology before they answered the ADOPT questions.

A selection of possible answers were provided.

If a range of different answers received from participants - the most popular answer selected for the final analyses.

Enterprise scale

4. On what proportion of the target farms is there a major enterprise that could benefit from the innovation?



- a) Almost none
- b) A minority
- c) About half
- d) A majority
- e) Almost all

Relevant existing skills & knowledge

12. What proportion of the target population will need to develop substantial new skills and knowledge to use the innovation?



- a) Almost all
- b) A majority
- c) About half
- d) A minority
- e) Almost none

Tools & Technologies



33 different tools & technologies have been assessed using ADOPT.

54 different ADOPT sessions have been carried out.

6 tools & technologies assessed by participants in more than one country



Questions influencing peak adoption level



The most influential over all sessions were those related to:

- the scale of the sheep/goat enterprise.
- potential profit benefit during the years the tool/technology were used.

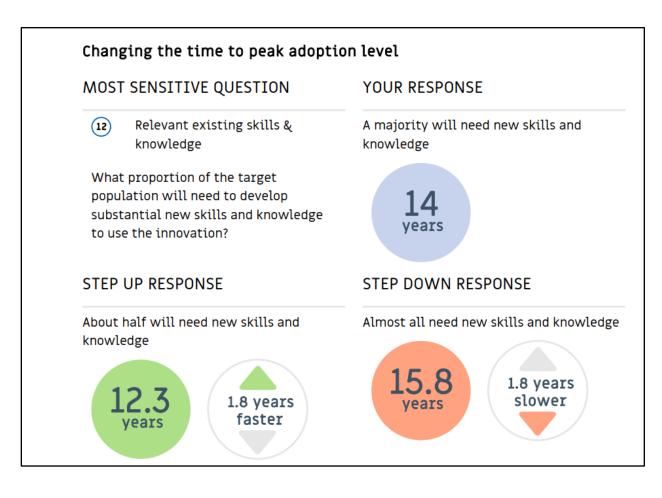
Changing the peak adoption level MOST SENSITIVE QUESTION YOUR RESPONSE Enterprise scale A majority of the target farms have a major enterprise that could benefit On what proportion of the target farms is there a major enterprise that could benefit from the innovation? 97% STEP UP RESPONSE STEP DOWN RESPONSE Almost all of the target farms have a About half of the target farms have a major enterprise that could benefit major enterprise that could benefit 98% 96%

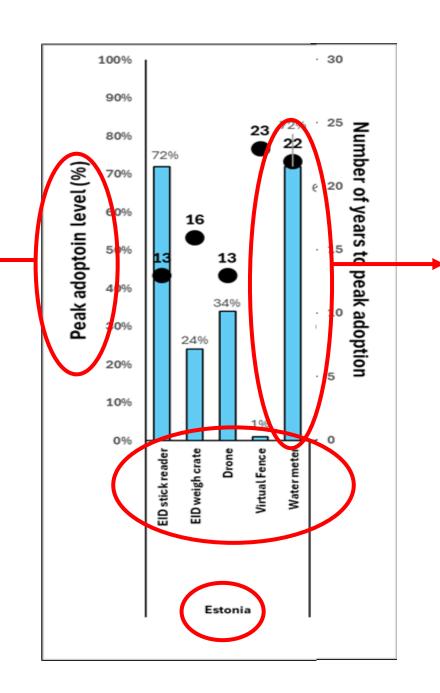
Questions influencing time to peak adoption



The most influential over all sessions were those related to:

- the proportion of farmers that would need to develop substantial new skills & knowledge to use the tool/technology.
- the learnability characteristics of the tool/technology.





Blue bars indicate the peak

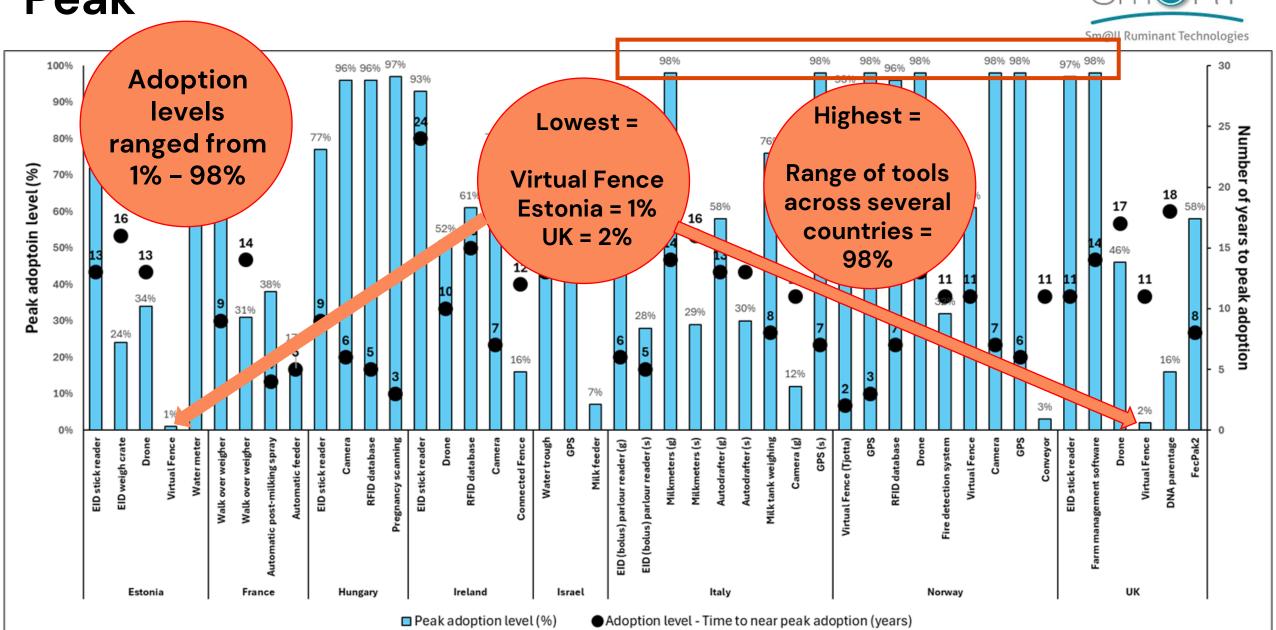
adoption level,

Higher is better!

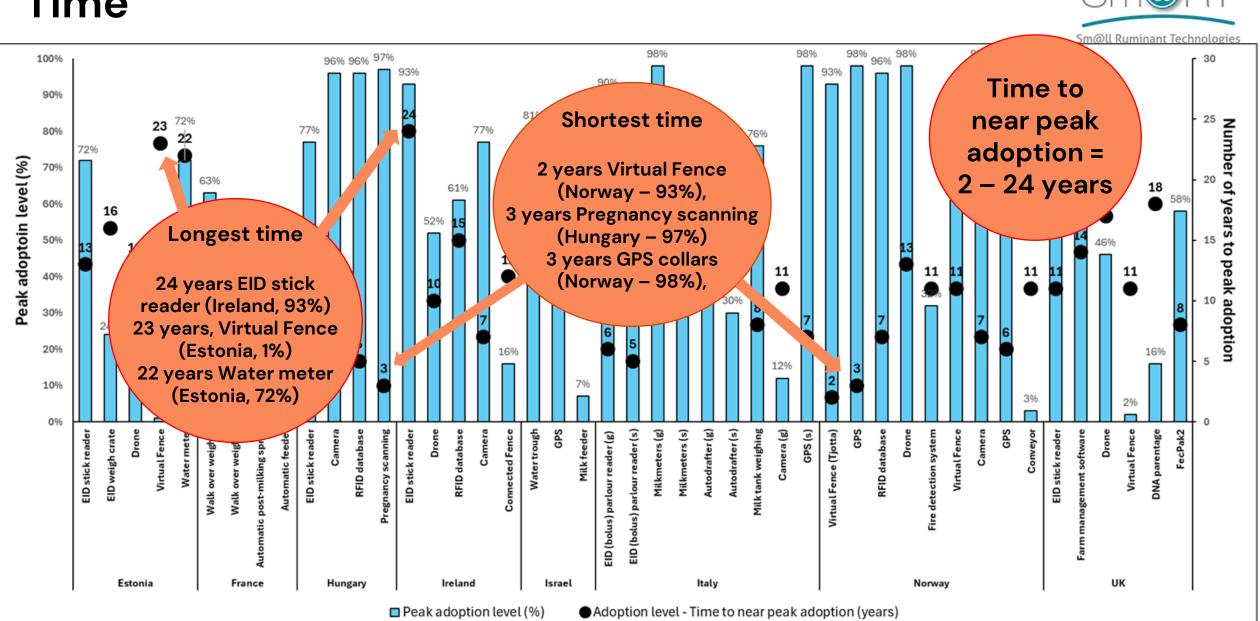


Black circles indicate the number of years to peak adoption level, Lower is better!

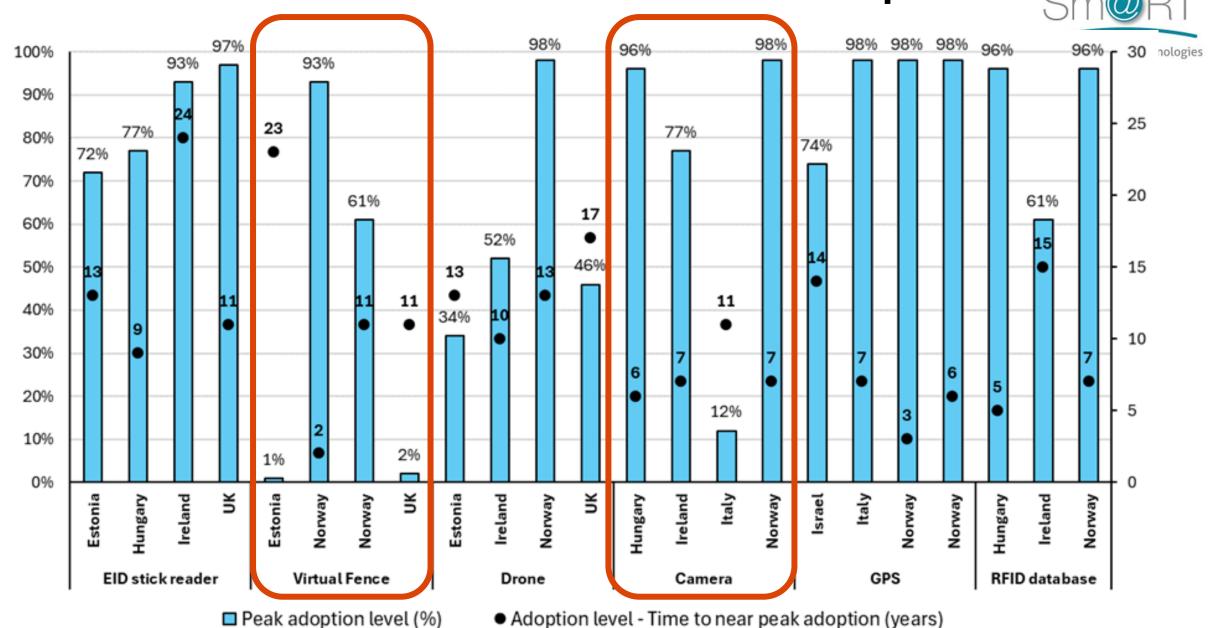
Adopt session overview across countries – Peak



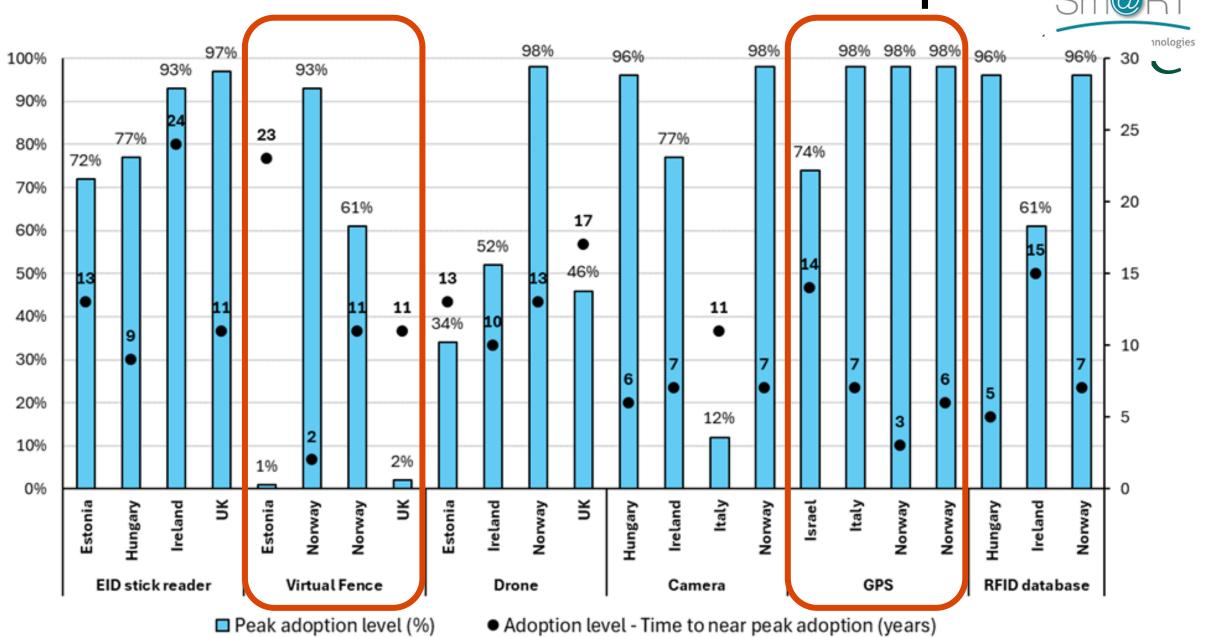
Adopt session overview across countries - Time



Differences between countries - Peak adoption



Differences between countries - Time to peak



Summary



33 tools/technologies assessed using ADOPT

Influential areas influencing the rate and peak level of adoption are:

- the proportion of the population that will need new skills/knowledge
- the proportion of farms that could benefit from the tool / technology

Variation observed between countries for similar tools







Feedback from the ADOPT sessions

- provided valuable information in terms of the **predicted future uptake and acceptance** of tools/technologies available to small ruminant farmers.
- highlights the importance of knowledge exchange, training & aftersales support









Acknowledgements

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