**Sm@RT**

Sm@ll Ruminant Technologies

# INNOVATIONS ON SMALL RUMINANT FARMS

## Sm@RT POLICY BRIEFS

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# Introduction

## *General introduction about the project*

Sm@RT (Small Ruminant technologies –Precision Livestock Farming & Digital technologies for small ruminants) is a European network to share experience of new technologies for sheep and goats. It brings together a network of researchers, farmers and advisors to improve awareness of innovative tools, demonstrating their potential and possible return on investment.

*Sm@RT involved 11 partners in 8 countries, and focus on dairy goats, dairy sheep and meat sheep farmers.*
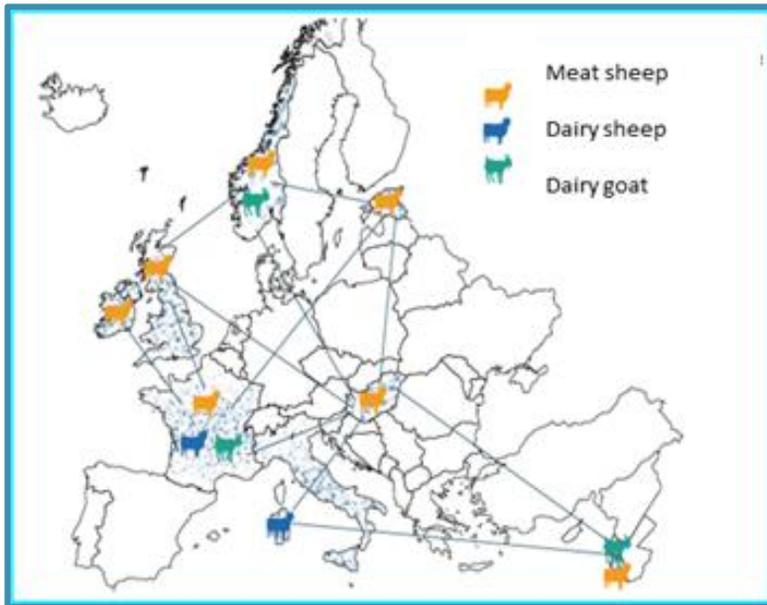


Sm@RT fostered exchanges on technologies between farmers during farm demonstration days on innovative farms and digifarms.

Sm@RT created resources for farmers regarding available technologies, to progress in their digitization process to meet their needs and objectives. Guidelines, cost-benefit analysis, farmers' testimonies and videos have been created to encourage uptake of solutions to needs.

# Findings

In general, the findings of this project confirm that:

- Although only 15 % of farmers surveyed have technologies on their farms, 79% of them would like to use technologies to help with feeding/grazing, health and welfare, reproduction, flock/herd management, fattening and/or milking

- A total of 166 ranked needs were identified and 60 innovative technology solutions were proposed to the farmers.

- Training sessions on Digifarms and Farm Demonstration on Innovative farms proved an ideal medium for peer-to-peer knowledge transfer regarding the use of technologies.

- The main barriers to uptake are linked to costs of technologies, but also to the lack of training options, after-sales advice, confidence in one's skills and compatibility between the devices.

- Sharing of knowledge and experiences between farmers, researchers and other stakeholders in different countries proved invaluable.

- There is a lot of information regarding cost of technologies, but the information is often dispersed and not always in a format (or language) easy to understand or to adapt to one's farming situation. Cost-benefit analyses are necessary for farmers to fully decide on investing in technologies or not.

The project identified 4 key messages, that are developed in policy briefs:

1. Focus on research needs

2. Peer-to-peer demonstration & training needs for farmers

3. Innovations on small ruminant farms

4. Adoption & uptake of innovative technologies

## This policy brief focus on key message #3 – Innovations on small ruminant farms

*The recommendations identified in the four policy briefs have been developed during the life of the project by the partners and in collaboration with* **over 1350** *stakeholders during the project's participatory workshops.*

*The project carried out an initial online survey to capture farmers' opinions, which gathered* **over 660** *answers. A total of* **52** *national workshops have been conducted, together with* **five** *transnational workshops,* **one** *final seminar and* **one** *international visit.* **Over 635** *individual farmers' evaluations have been collected during* **30** *training sessions and farm demonstrations days on Digifarms and Innovative Farms.*

# Recommendations at a glance

- ✓ **Global surveys are useful to provide an overview of technology uptake across the small ruminant industries.**

- ✓ **Information collected associated with barriers to uptake indicate the need for training & after sales support.**

- ✓ **Financial support would also help to encourage more innovation on farms.**

- ✓ **Implementing tools & technologies can provide several different benefits.**

- ✓ **Detailed cost-benefit analyses of the innovative technologies, including scale of the business, are needed**

# What is the challenge?

- There is a lack of uptake of innovative technologies by sheep and goat farmers in Europe and beyond.

- Common misconception is that there are not many tools and technologies relevant to small ruminant farms.

- Of small ruminant farms that do have innovation, there is very little knowledge as to what the tools and technologies are currently being used for and why.

- There is a need to highlight the different tools & technologies available and provide guidance to farmers in terms of how to use them, the potential costs involved and the likely benefits.

# What did we learn from Sm@RT?



- Across the Sm@RT Digifarms & Innovative Farms, a wide range of tools and technologies are being used.

- Benefits seen included = easier to collect data, better flock/herd management, time/labour saving & improved welfare.

- An online survey, carried out by Sm@RT, was designed to collect information from stakeholders involved in the small ruminant meat and dairy industries in each partner country.

- Results (across all productions & countries):

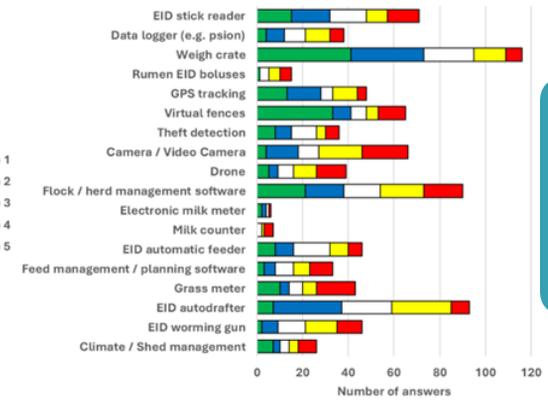  - Tools/ technologies currently on surveyed farms:
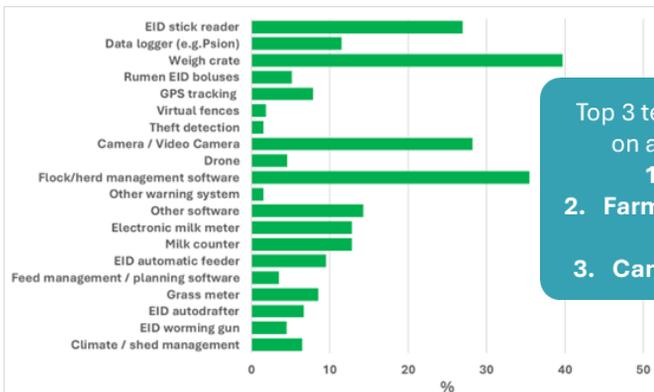


Top 3 technologies currently on all surveyed farms:
1. **Weigh crate**
2. **Farm / herd management software**
3. **Camera / Video Camera**

  - Tools/technologies deemed most beneficial:



Top 3 technologies that surveyed farmers deemed most beneficial (selected as top 1):
1. **Weigh crate**
2. **Virtual Fences**
3. **Flock / herd management software**

# What do we recommend?

- ✓ **Improve awareness of the tools and technologies available to small ruminant farmers.**

- ✓ **Training for farmers wanting to improve their knowledge of the tools and technologies available should be encouraged in future policies.**

- ✓ **Promote peer to peer knowledge exchange between stakeholders.**

- ✓ **Develop better after-sales support and regularly update guidance materials.**

- ✓ **Encourage local policy makers to provide financial support for equipment purchases/sharing.**