

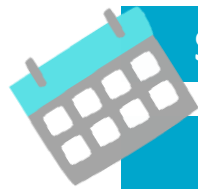
# Sm@RT: Innovative technologies training for small ruminant producers

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# Sm@RT project in few words!

## Sm@RT: Sm@ll Ruminant Technologies



Start: January 2021

8 countries

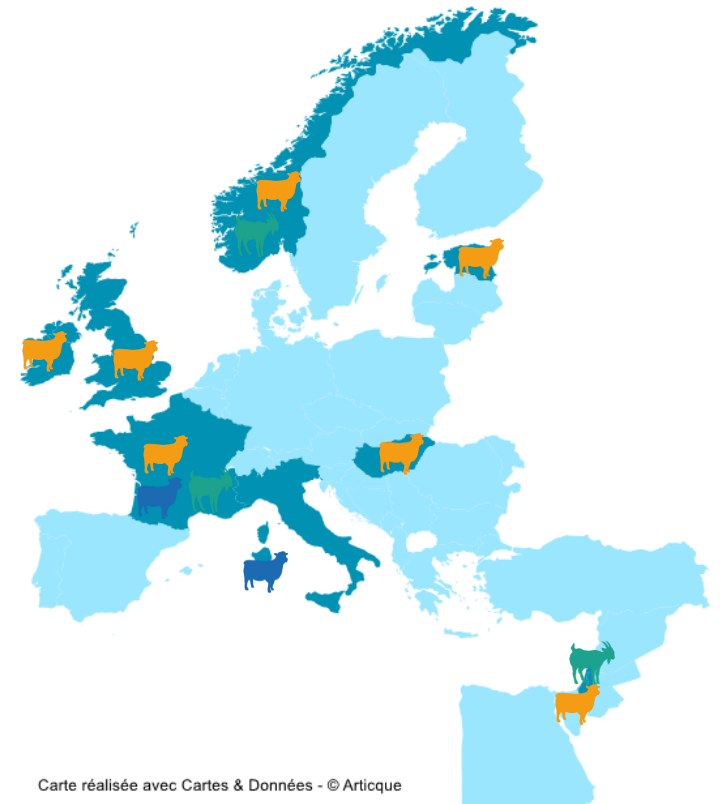
Duration: 3 years

11 partners



### Objectives

- Identify the needs for new technologies in the small ruminant sector.
- Create an inventory of existing technologies.
- Identify gaps, constraints and barriers to uptake and adoption.
- Evaluate the technical, economic, environmental and social impacts of these technologies and with demonstrations on "Digifarms" and "Innovative farms".
- Communicate, disseminate and share ideas between farmers, advisors & researchers.



Carte réalisée avec Cartes & Données - © Artique

 Dairy Goat
  Dairy Sheep
  Meat Sheep

# Around 50 relevant digital tools selected

- 3D imaging
- Air ventilation system in milking room
- Auto weighing drafting/ Eid tag and recording database
- Automatic concentrate feeder according with EID ear tag readers
- Automatic feeder
- Automatic lamb milk feeder
- Automatic weighing scale
- Automatic weighing scale and sorting
- BioControl feed intake modules
- Bluetooth printer
- Breeding harness (tested)
- connected drenching gun
- Connected feed distributor
- Conveyor
- Dairy recording
- Digital weight + flow meter + EID
- Drone
- EID (RFID)
- EID 5 way auto-drafter
- EID ear tags and readers in milking parlour
- EID handheld
- EID Stick Reader
- EID weighcrate and autodrafter
- Electronic milk flowmeters
- Embryo transplantation, frozen sperm laparoscopy
- FECPAK G2
- Feedcar (automatic concentrate distributor in sheepshed)
- Feeding post dried hay by electric crane
- Flock management
- Gallagher stick reader
- GPS collars
- Grasshopper
- Grassmeter
- Herd management software
- Kingswood/ANIDATA
- Lactocorder
- LoraWan Network
- Milk machines for goat kids feeding
- Milk quality control by milk
- Milk quantity and milk quality control for health status of animal
- Milking parlour 24 x 2
- Ovitel (herd management software)
- PAC chambers (methane)
- Panel reader
- Pasture grazing app
- Positon data-logger
- RFID UHF tags (tested)
- Sheep recording system
- Sheep recording system (sheep Ireland)
- Smartfence
- TGM K- sheep recording system
- Virtual fences (collars Nofence)
- Webcams
- Weighhead Allflex (XR3000 and XR500)
- Weighting + autosorter
- WOW (Walk-Over-Weighing)



# Focus on those of interest for farmers



Drone



GPS Collar



Camera



Virtual fences



EID stick reader



Weighing crate



WoW (Walk over Weighing)



# Example of a farmer's meeting in Sm@RT

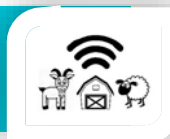
- Welcome with tea and coffee
- Workshop
  - Presentation / Progress of the project
  - Feedback on an event / some results of the project
  - Work in groups
    - Need identification
    - Use of ADOPT
    - ...
- Convivial lunch
- Farm visit / Tools demonstration



# Trainings on *Digifarms* and demo days on *innovative farms*

## 2 types of days

### Trainings on Digifarms



**Digifarm**: A demonstration/experimental sheep or goat farm with digital tools

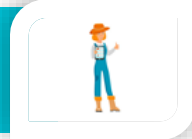
**8-10 farmers**

Presentation and demonstration of the digital tools on the Digifarm.

Farmers have the opportunity to:

- use the technologies in real life situation,
- Learn how to use them with animals
- Learn how to upload or download the collected information...

### Demo days on innovative farms



**Innovative farm**: commercial sheep or goat farm with digital tools

**2-6 farmers**

The innovative farmer testifies how he use the technology → Information from farmers to farmers

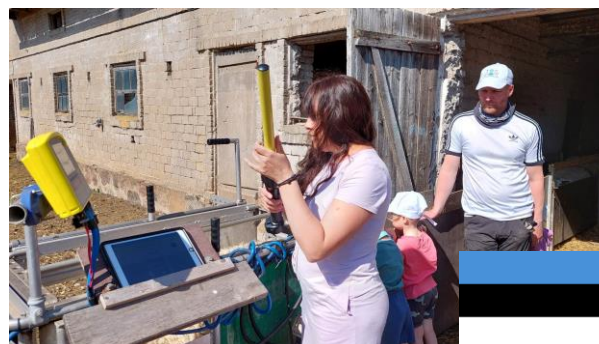
Farmers have the opportunity to:

- Ask practical questions
- See and touch the digital tool
- Discuss any issues



# Trainings on *Digifarms* and demo days on *innovative farms*

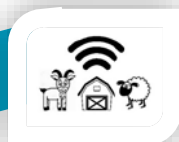
- At least 1 training and demo day per partner country done



# Trainings on *Digifarms* and demo days on *innovative farms*

- Farmers completed a questionnaire to evaluate the tools before and after the demonstration/test of the tool

Digifarm training



Training on Digifarms – [Country name]

[Date]

Questionnaire

<b>Name of PLF tool tested:</b>			
<i>BEFORE WE START</i>			
What do you think of this technology? -> smiley, neutral or grumpy			
Would you put it on your farm? Yes or No or Neutral			
<i>AFTER THE TRAINING</i>			
What do you think of this technology?			
Would you put it on your farm?			

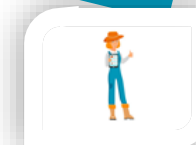
Innovative farm demo

Farm Demo – [Country name] [Date]

Questionnaire

<i>BEFORE THE DEMONSTRATION</i>		Yes	No					
Do you have the tool?								
Do you think it is worth investing in it?								
Would you like to implement on your farm?								
				1	2	3	4	5
Level of practicality (1=low, 5=high)								

<i>AFTER THE DEMONSTRATION</i>		Yes	No					
Do you think it is worth investing in it?								
Would you like to implement on your farm?								
				1	2	3	4	5
Level of practicality (1=low, 5=high)								







# Trainings on *Digifarms* and demo days on *innovative farms*

- Farmers completed a questionnaire to evaluate the tools before and after the demonstration/test of the tool

Digifarm training



- More than 50 farmers
- 14 tools evaluated

Innovative farm demo



- More than 80 farmers
- 8 tools evaluated

→ 20 different tools evaluated in total

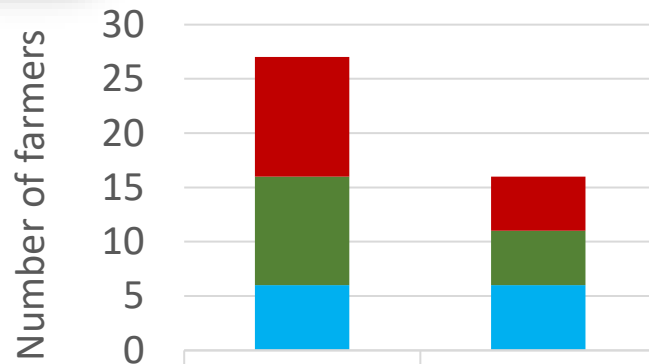
# Results – EID stick reader



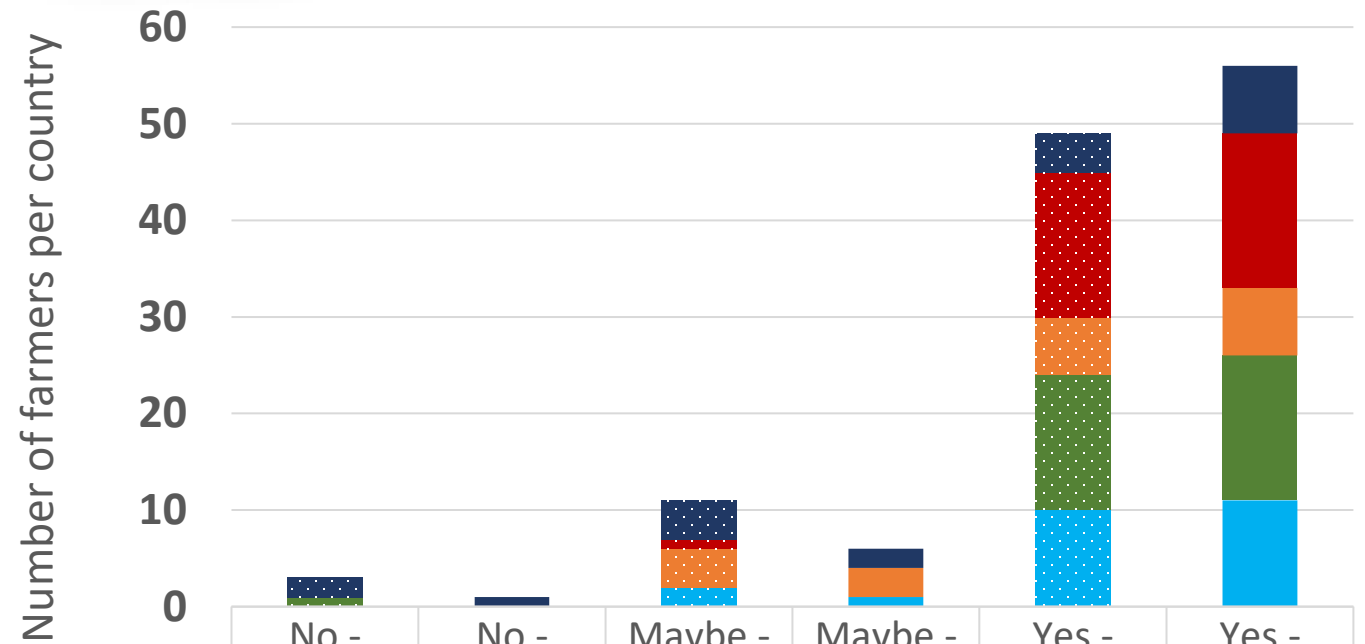
Would you like to implement it on your farm?



Do you have this tool ?



■ Norway	11	5
■ Hungary	10	5
■ Estonia	6	6



■ UK	2	1	4	2	4	7
■ Norway			1		15	16
■ Ireland			4	3	6	7
■ Hungary	1				14	15
■ Estonia			2	1	10	11

Answers

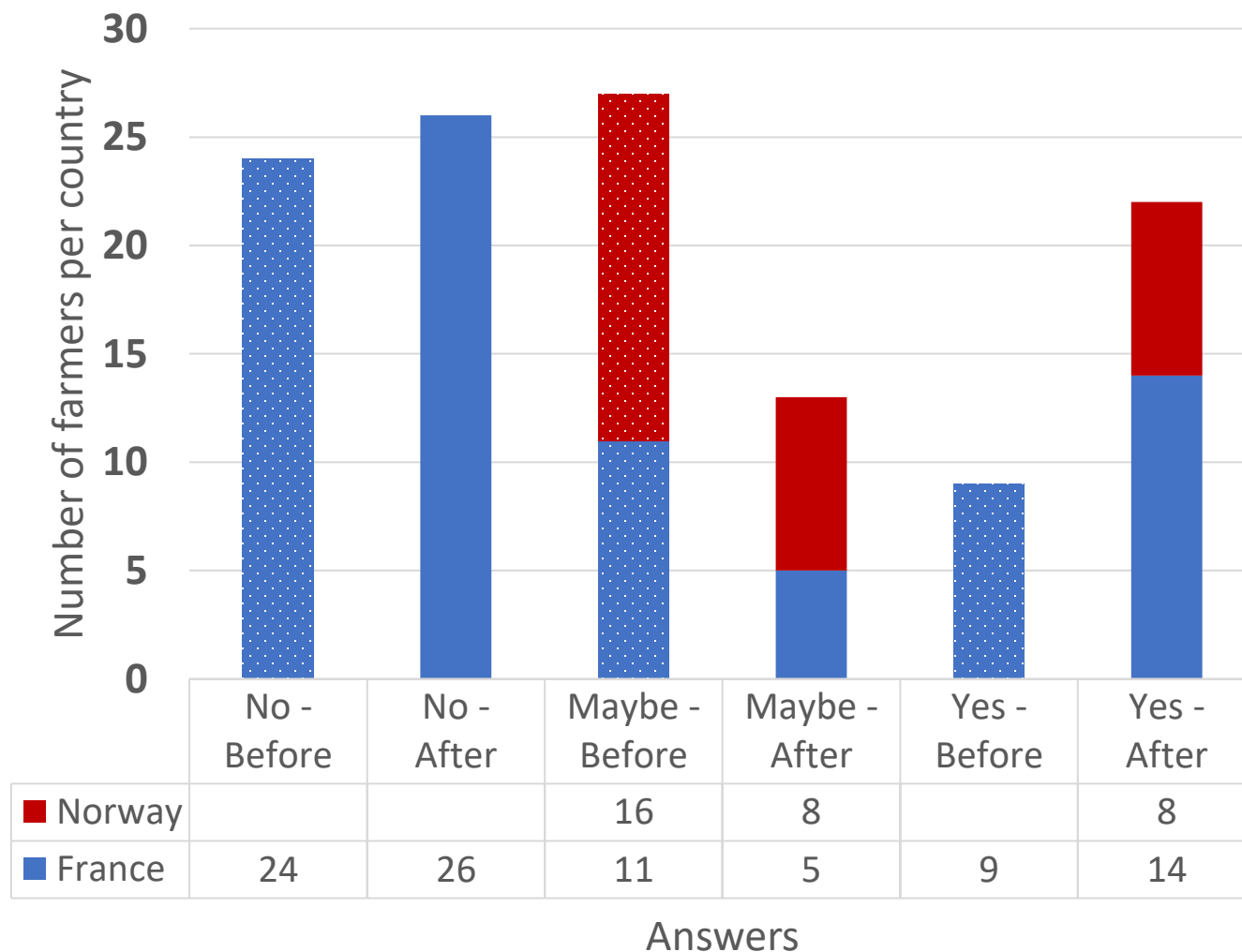
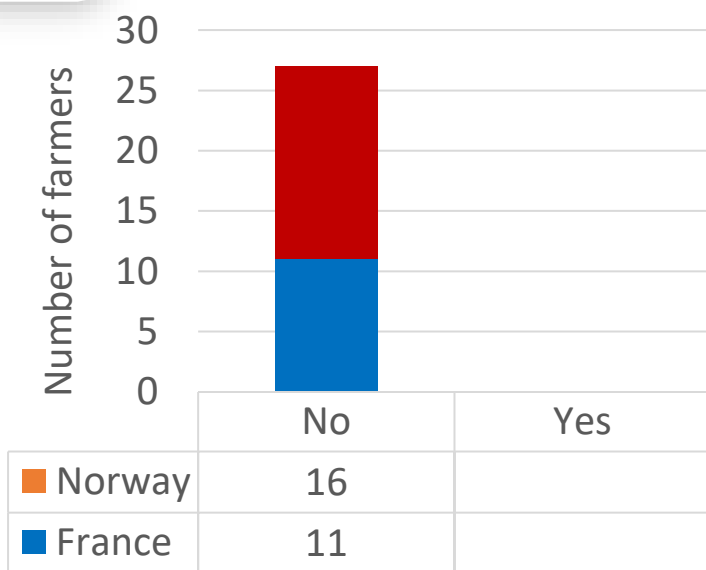
# Results – Virtual fences



Would you like to implement it on your farm?



Do you have this tool ?



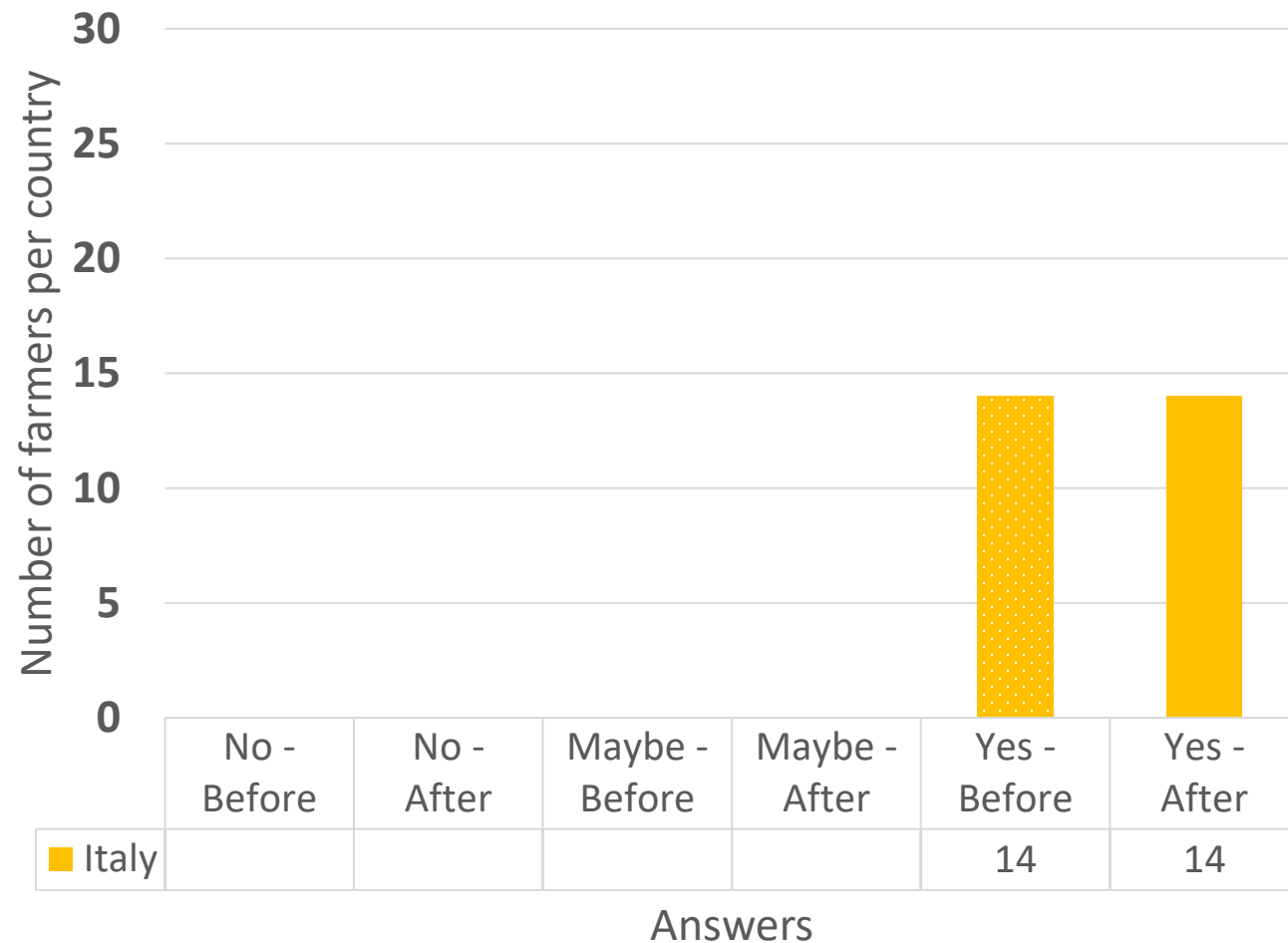
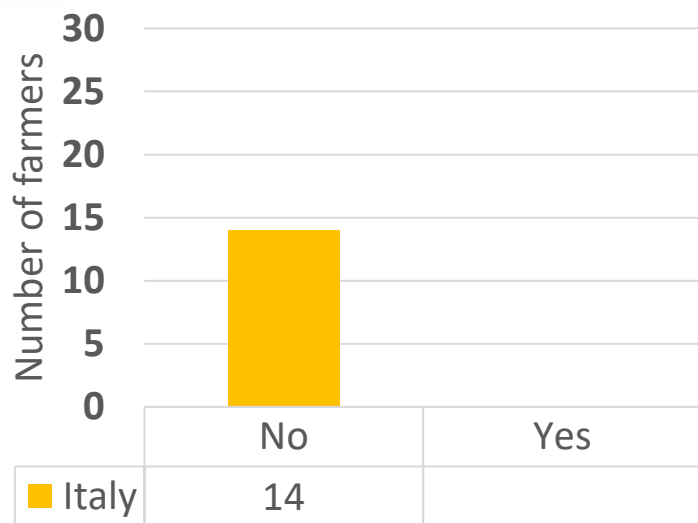
# Results – Milk meter



Would you like to implement it on your farm?



Do you have this tool ?



# Conclusion and what next ?

- A lot of farmers' meetings done in the 8 countries
  - 10 Training days on Digifarms
  - 9 Demo days on innovative farms
- 20 tools evaluated by more than 100 farmers
- Other training days and demo days will be done in each country
- A more complete questionnaire has been done during the training days on Digifarms → Upcoming results !



# Thank you for your attention!

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