TECH CARE

**Integrating innovative TECHnologies along the value Chain
to improve small ruminant welfARE management**

Innovations – what do farmers think?

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TechCare final conference
University Foundation - Room Felicien Cattier
Brussels
17-18 June 2025

TechCare – Technological devices chosen

In the TechCare project, the partners participating in the large-scale trials chose several technological devices to measure parameters related to well-being indicators and create predictive alarms of unwanted events.

1.-Weather Station & Indoor Sensors

2.-Individual milk meter

3.-Electronic reader for EID (bolus or e-ear tag) and antennas

4.-Milk Tank Weighing Scale

5.-Automatic weighing scale with electronic ear tag or ruminal bolus

6.-Electronic ear tag identification (r. bolus or e-ear tag)

Through a survey, trial participants have expressed their views on the phases in which they have worked:

1.-Design or collaboration on the trials

2.-Installation of devices

3.- Use of devices

4.-Maintenance of devices

5.-Data collection

6.-Animal welfare assessment

The survey consists of 26 questions, which try to collect:

The degree of ease or complexity found in the different stages.

As well as to quantify the time spent on some of them.

Assess the perceived usefulness of installed technologies in the medium and short term.
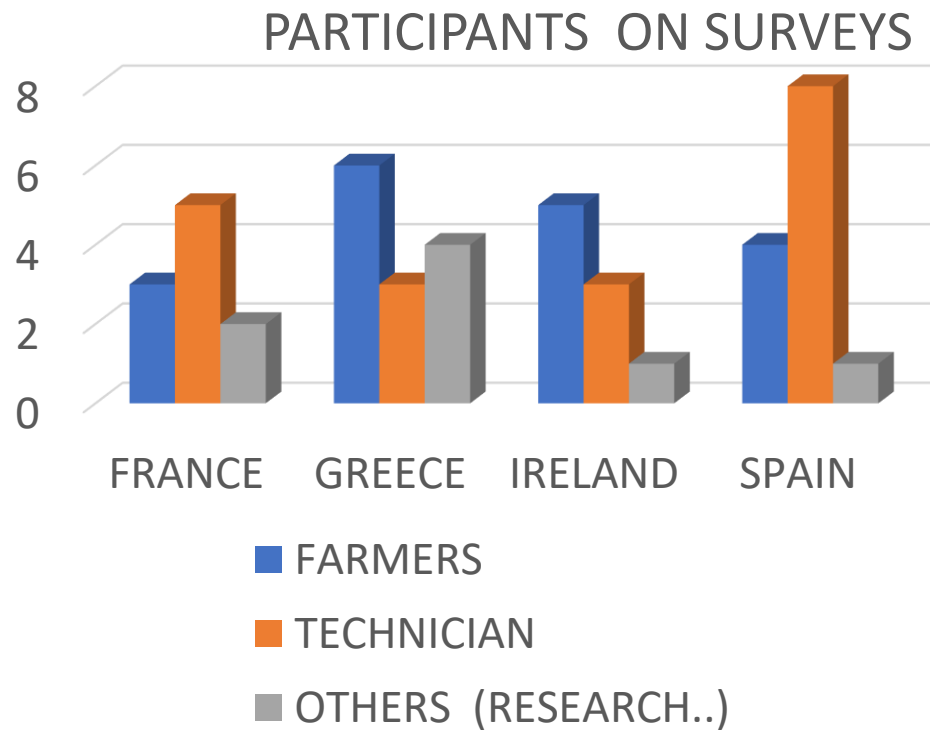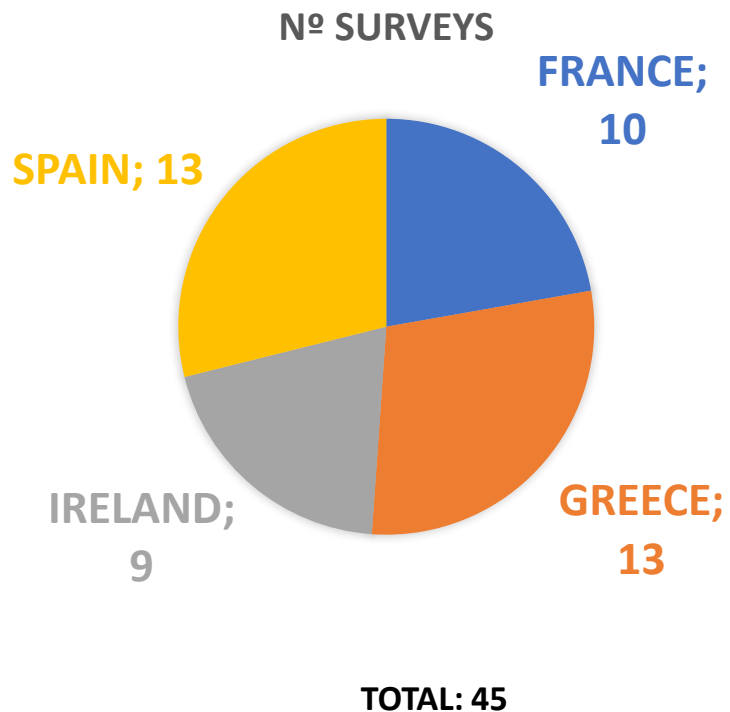
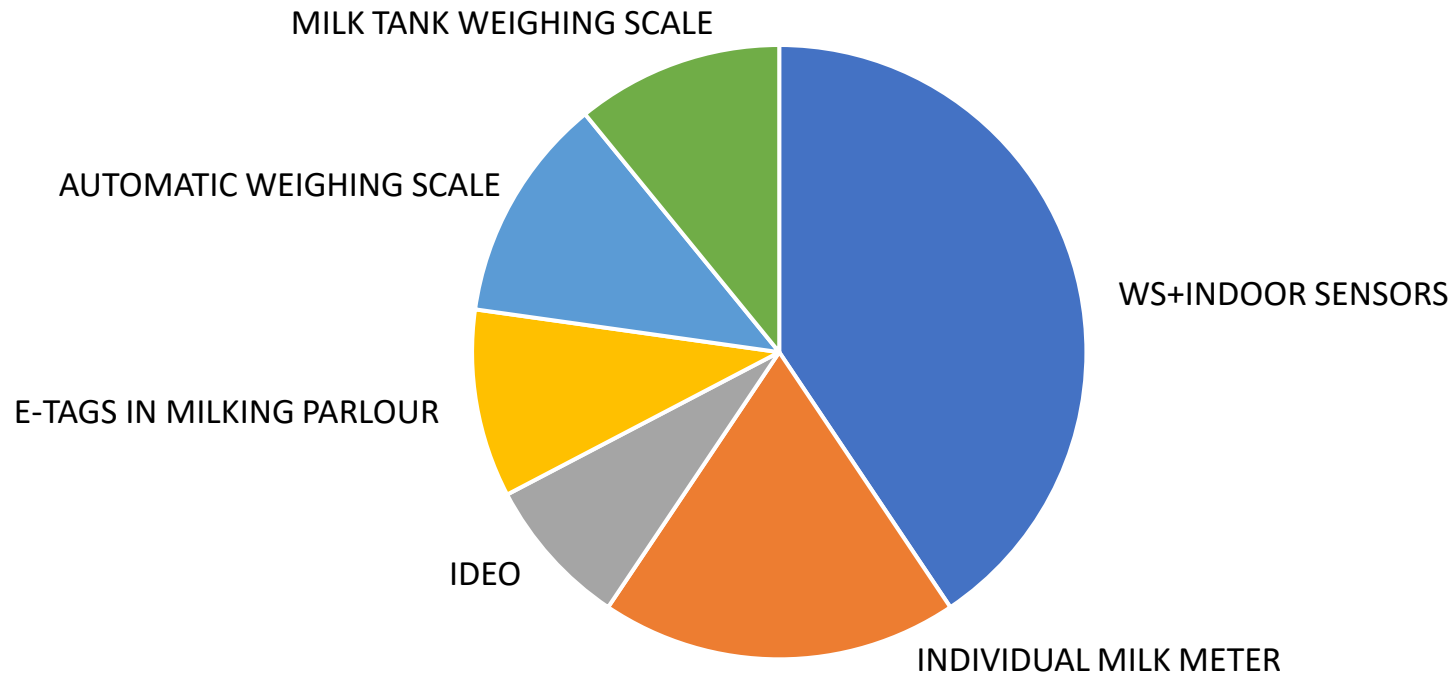They have been made on paper or online via a FORMS link

Microsoft Forms

and translated into 5 languages

Global information

Nº SURVEYS

FRANCE; 10

SPAIN; 13

IRELAND; 9

GREECE; 13

TOTAL: 45

PARTICIPANTS ON SURVEYS

- FARMERS
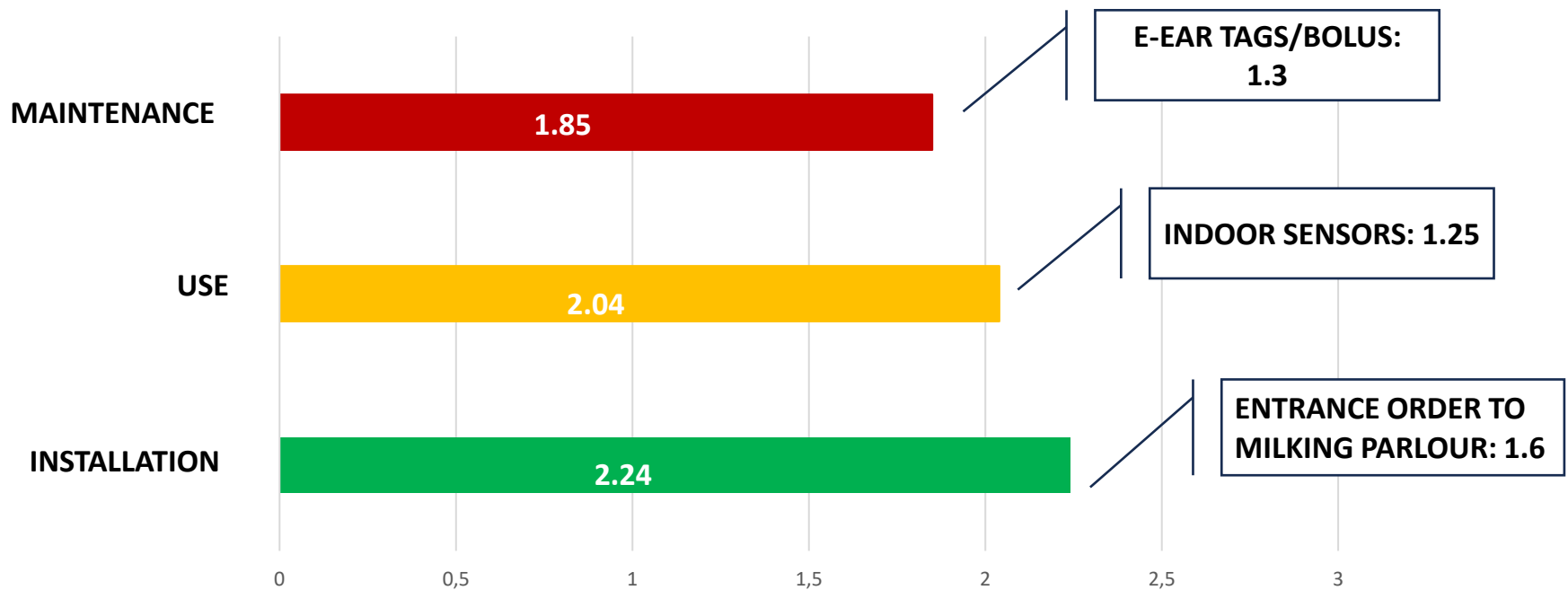- TECHNICIAN
- OTHERS (RESEARCH..)

Technologies installed

Technologies difficulties

1: a little- 5: a lot

E-EAR TAGS/BOLUS: 1.3

INDOOR SENSORS: 1.25

ENTRANCE ORDER TO MILKING PARLOUR: 1.6

	Value
MAINTENANCE	1.85
USE	2.04
INSTALLATION	2.24

Difficulties encountered and how to solve it: WS + indoor sensors

						Best solution
🔋		++				Recharge dust sensor´s batteries every month
📡			+	++	+	- Avoid metallic surroundings - Distance btw tablet-sensors: 50-100m - SD card in farms without WiFi
📱 breakages				++	+	Extra protection: - Soil sensors: plastic bottle + concrete brick - Tablet: plastic box
❓ losses				++		Identify sensor´s location with a special mark / flag /...

TechCare – Survey´s results

Difficulties encountered and how to solve it: Individual milk meters

	Main problems	Best solution
	Different frequency of E-ear tags Ewe´s head movements	LF E-ear tags/bolus
	Differences btw databases - milk meters	

Difficulties encountered and how to solve it: Milk tank weighing scale

	Main problems	Best solution
	WiFi signal	Install/ amplify WiFi
STABILITY	Weight deviations when the tank is empty/full	Recalibration

**Difficulties encountered and how to solve it: Automatic weighing scale**

	Main problems	Best solution
📖	Instructions poorly understandable	Technician support
🐑	Entrance of two ewes at the same time	Adaptation of a previous door

Difficulties encountered and how to solve it: EID Antenna – E- Tags/ bolus

	Main problems	Best solution
📡	Metal surroundings	Recalibration
⇄	Farms where entrance of animals = exit	Arch reader
📡🐑	Different frequency of E-ear tags	LF E-ear tags/bolus

Data collection

1: a little- 5: a lot

INFO RELIABILITY	3.2
EASE	2.4
TIME REQUIRED	2.1

1   1,5   2   2,5   3   3,5   4
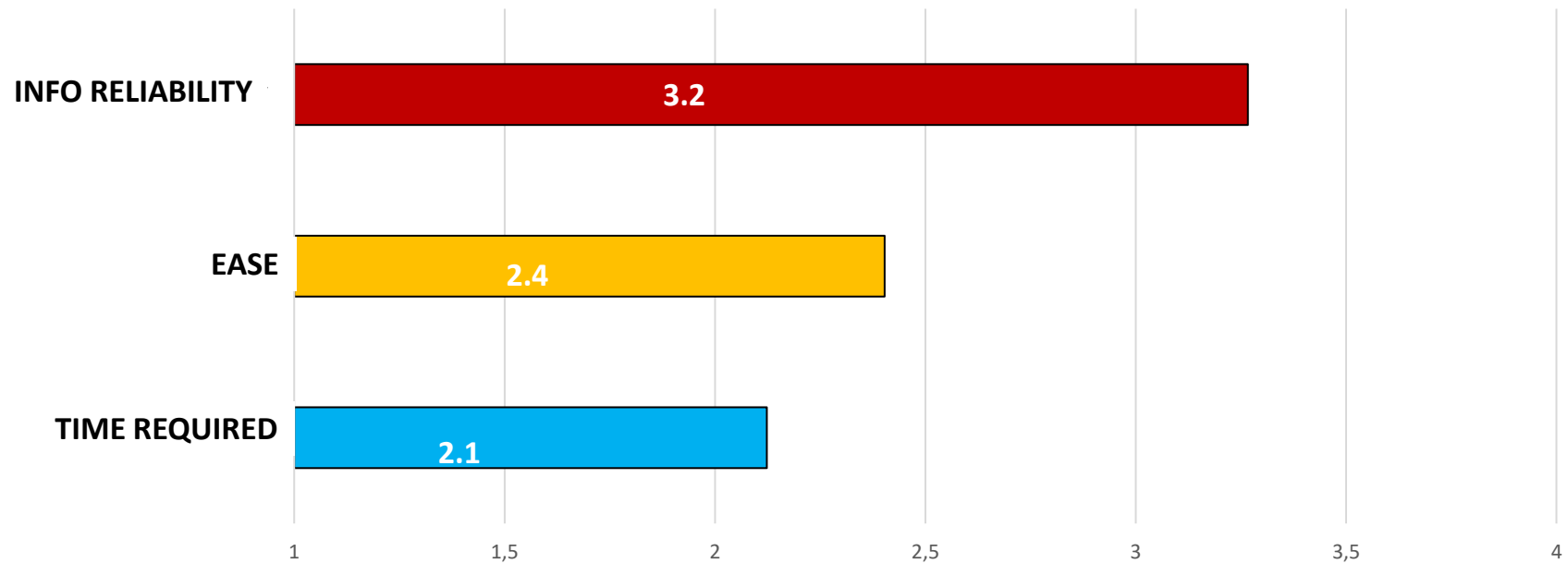
Animal Welfare Assessment

1: very poor- 5: excellent

FREQUENCY: 12.9 days …......... ⭐ 3.7

EASE:……………………… ⭐ 3.4

TIME USED: 2.7h……………… ⭐ 3.4

Is the information from these tools useful for animal welfare management?

100% YES

Thank you for your attention

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