



DIGI-Rangeland

EAAP Mountain Grassland and Livestock Joint Conference

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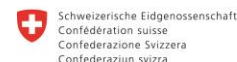
Understanding the needs, obstacles, and expectations of farmers and advisors regarding digital innovation and technology for rangeland livestock systems across Europe.

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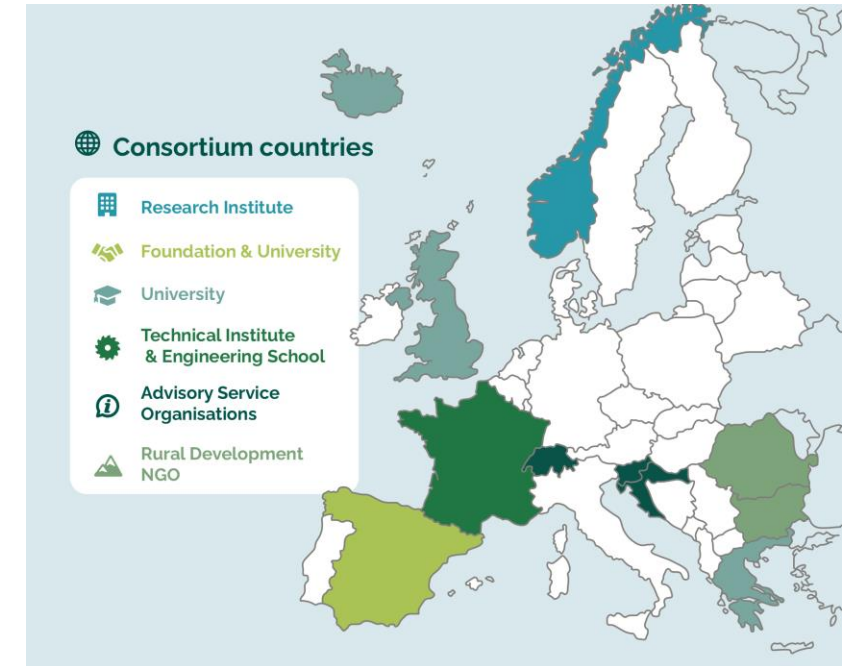
Context: DIGI-Rangeland EU project

DIGI-Rangeland project aims to support the **uptake of Digital Technologies and Innovations (DTI)** in rangeland livestock farming systems.

Key question:

How can digital technologies and innovations help maintain rangeland livestock farming systems and support rural activities?

- **3 Thematic areas:**
 - Improving **farm management** of extensive livestock systems and practices.
 - Facilitating **land use** and **land sharing** in the territories.
 - Developing and **promoting** of rangeland quality **products**, and **awareness** of the **services** provided by rangeland livestock farming systems.



11 countries & 13 partners
2025 -2029



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Identify farmers and advisors's needs, challenges and barriers to DTI adoption

- A 1st survey to provide the network wide assessment of expectations and constraints regarding DTI.
- **Survey methodology**
 - Online questionnaire translated into 11 languages.
 - Open from October 2025 to March 2026 (LimeSurvey)
 - **1234 completed responses** from 11 countries.
 - Main respondent groups:
 - ✓ **Farmers, farm workers and herders: 47% (n=583)**
 - ✓ **Advisors/consultants: 20% (n=245)**
 - ✓ Researchers/teachers: 13%
 - ✓ Students: 9%
 - ✓ Veterinarians: 4%

- Survey themes:



Meat sheep flock,
Southern Alps, France
Photo crédit: MRE PACA

Identify farmers and advisors' needs, challenges and barriers to DTI adoption

Table: Number of respondents per country

	Total	Farmers / Workers	Advisors / Consultants
Bulgaria (BG)	80	20	26
Croatia (HR)	26	4	7
France (FR)	282	111	78
Greece (GR)	171	58	16
Iceland (IS)	138	96	13
Norway (NO)	88	67	12
Romania (RO)	53	18	6
Slovenia (SI)	117	51	38
Spain (ES)	89	46	17
Switzerland (CH)	115	65	19
Unit. Kingd. (UK)	62	43	11
Other countries	13	4	2
Total	1234	583	245



*Cow on mountain pasture,
Switzerland
Photo credit: AGRIDEA*

Current use of digital technologies

- 36% of farmers use DTI regularly.
- 32% have never used DTI.
- **Most common technologies:**
 - Surveillance cameras (50%)
 - GPS tracking (47%)
 - Herd management software (46%)
 - EID tags/readers (45%)
- Users are generally satisfied with technologies they adopt (most scores around 4/5).

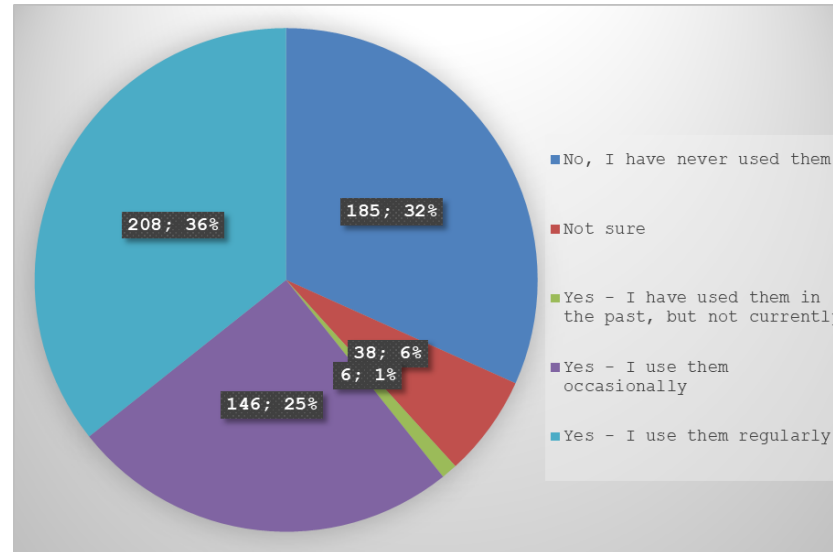


Figure: Farmers, farm workers and herders: **Do you currently use, or have experience with DTI in your work?**

(number of respondents; % of all respondents to this question)

Adoption remains moderate, but user satisfaction is consistently high

Main challenges in rangeland livestock farming



*Goats in rangeland, Spain
Photo credit: Diego Vazquez, USC.*

Top challenges reported by farmers:

- Fencing and boundaries
- Harsh working conditions
- High labour demand
- Predation losses
- Health monitoring
- Promotion of environmental and social benefits of rangeland farming

Cross-country pattern:

- Similar ranking of challenges across countries.
- France and Greece generally report higher challenge intensity.
- Norway consistently reports lower challenge levels.

Where stakeholders expect DTI to help

Highest expectations for DTI:

- Remote animal monitoring (4.40/5)
- Herd tracking and herding (4.24/5)
- Grazing and pasture management (4.11/5)
- Health and disease detection (4.05/5)
- Administrative support (4.05/5)

Observation across all countries:

- Expectations are very similar across countries and livestock sectors.
- Strong demand for technologies supporting day-to-day farm management.



*Sheep herding Réttir Iceland 2024
Photo crédit: Tinna Stefánsdóttir*

Barriers to adoption

Top barriers:

- High cost of tools
- Poor connectivity
- Lack of funding/subsidies
- Lack of training and support
- Lack of awareness of available solutions

Lower-ranked barriers:

- Data reliability
- Privacy concerns
- Relevance of technologies



Farm visit, Romania. Photo credit: FEUGA.



KOM, Scotland. Photo credit: FEUGA.

DTI uptake is limited primarily by economic and infrastructural constraints, not by lack of interest.

Conclusions and perspectives

- **Three key take-home messages**

- Rangeland farmers and advisors show strong interest in digital technologies
- Priority needs concern animal monitoring, herd tracking and grazing management.
- Adoption is mainly constrained by cost, connectivity and access to training/support.

- **Implications for DIGI-Rangeland**

- Focus on practical, field-oriented solutions.
- Strengthen demonstration activities and peer learning.
- Improve training and advisory support.
- Address connectivity and affordability issues.

Conclusions and perspectives

Next steps:

- Identification of challenges from non farming land users and managers
- Identification of relevant technologies and innovations
- Testing of solutions with stakeholders
- Evaluation, Demonstration, Training
- Development of the DIGI-Rangeland knowledge and innovation network: join us! 😊

Our online consultation continues throughout 2026:
Participants of the EAAP Mountain Grassland & Livestock Conference,
take part in this work by completing our surveys:

- as researchers here:



- as citizens visiting the rangelands for tourism & outdoor activities:





**Thank you
for your attention!**

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