

Farmers' perspectives on large carnivores damage prevention tools and management alternatives in mountain livestock systems



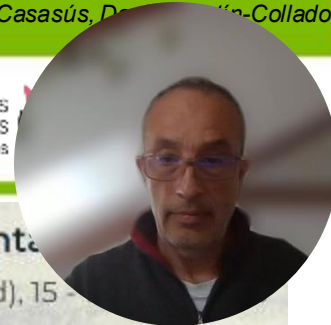
Co-creating coexistence: Advancing policies, practices, and stakeholder engagement for integrating wildlife and livestock into sustainable multi-functional landscapes in Europe

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**CENTRO DE INVESTIGACIÓN Y TECNOLOGÍA
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Project CoCo. Approach

- Pastoralism and high nature value farming systems face multiple challenges in terms of economic and social viability.
- Finding effective animal husbandry practices to deal with wildlife return represents an additional difficulty on top of many others.
- It is essential that dealing with this issue does not fall on one part of society only.



iNN
University of
Inland Norway

salix
Salix Centre for
Sustainable Land-Use Research
Oslo

Land Use & Land-Use
Research Institute

cita
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Innovation and
Technology in
Agriculture

NINA
Norwegian Institute
for Nature Research

IEA
Institute for
Ecological
Applications

CALLISTO

INRAE
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de la Recherche
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adelphi

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Institute for Wildlife and
Mountain Conservation

UMEA
UNIVERSITY

SILVIA
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EAAP
European Association
of Animal Pathologists

Hushållnings
sällskapet

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Material and methods

- 1,077 in-person farmer surveys; 12 countries, 30 regions
- 1.5-2.5 hours/interview, >30 pages,
- Study areas with permanent presence of at least one large carnivore species: wolf, bear, lynx, or wolverine
- Sampling targeted areas with reported livestock losses; not representative of entire countries



Objectives

Overall survey aims:

- To understand how pastoral systems, husbandry practices and livestock protection measures shape interactions between livestock and wildlife across Europe, while placing these interactions within the broader social, economic and governance challenges faced by pastoralists.

Specific aims of this work (in Spain)

- To analyse farmers' perspectives on damage prevention tools, compensation schemes and management alternatives.
- To explore how these perspective depend on case study context and attacks.





N=107
Face-to-face farmer survey

In Spain



Guadarrama, n=17

Central Mountain
System

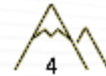


Gredos, n=31

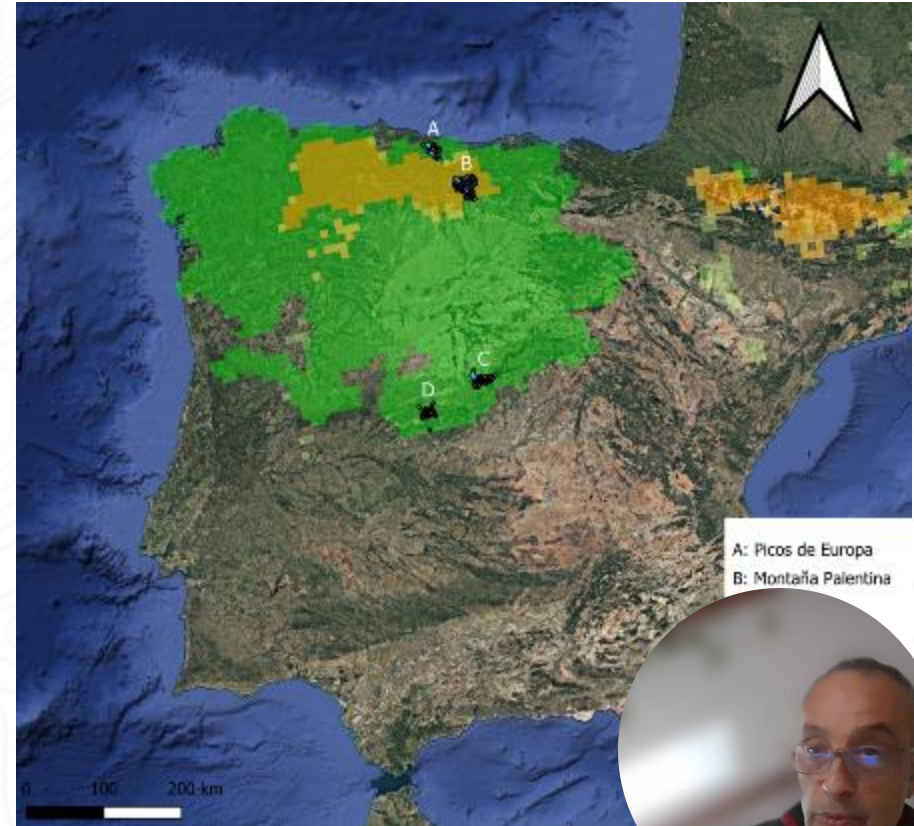


Montaña Palentina, n=29

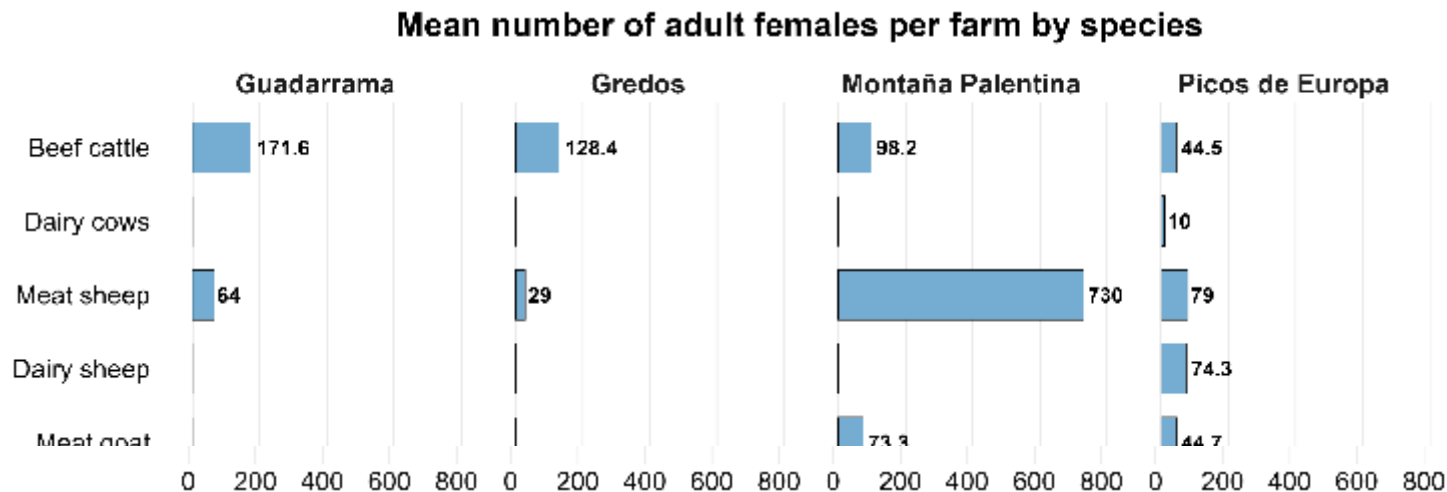
Cantabrian Range



Picos de Europa, n=30

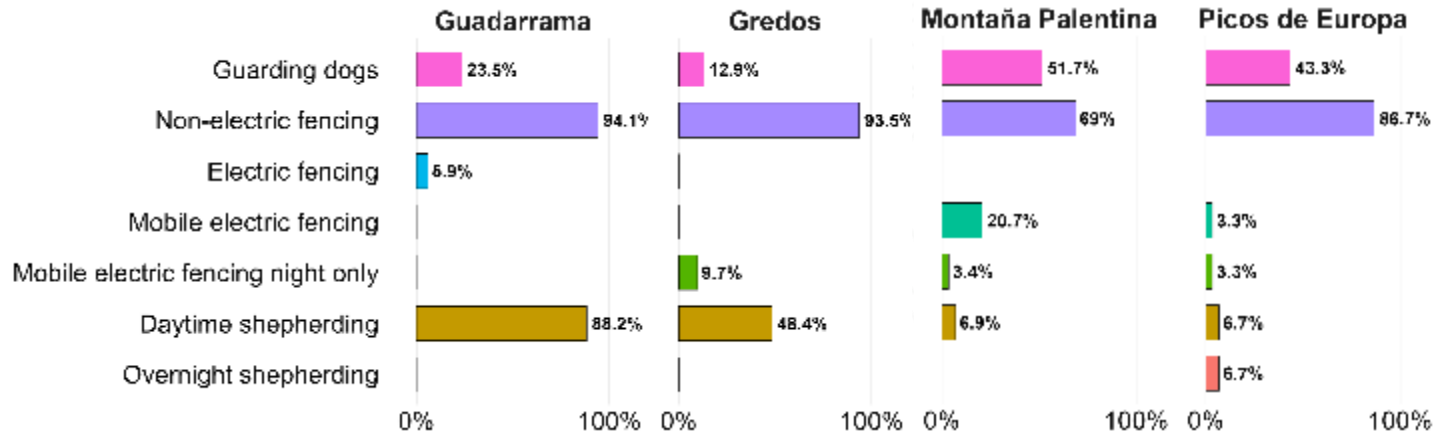


Case studies farming systems

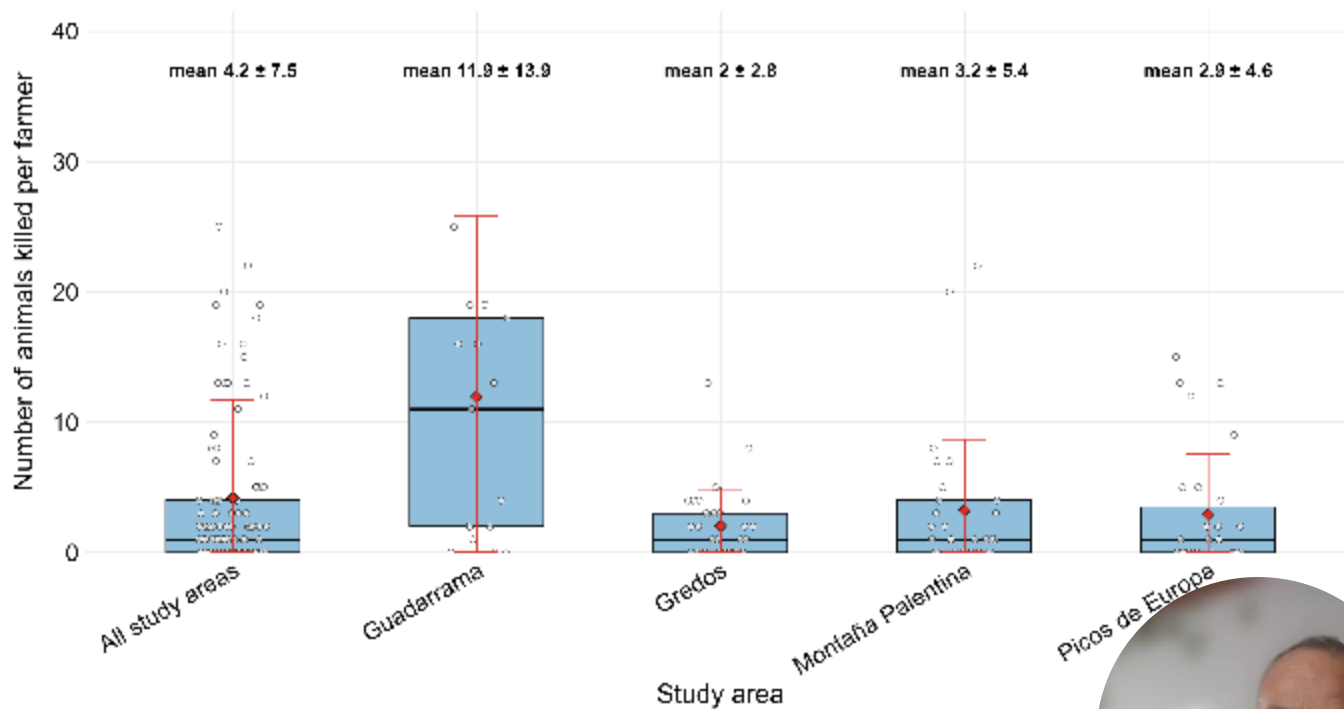


Implementation of prevention measures

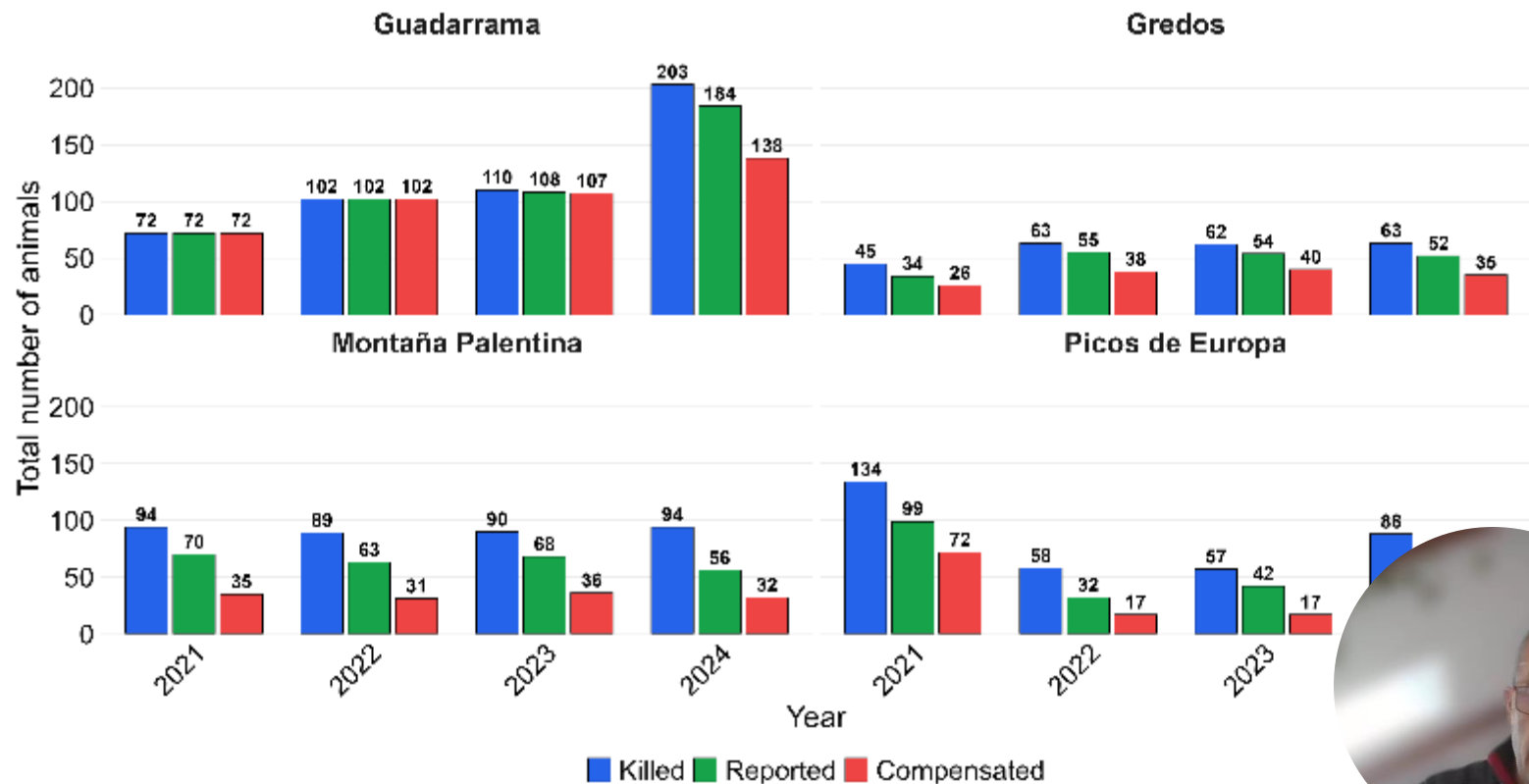
Protection methods by study area



Predator attacks by study area (2024)

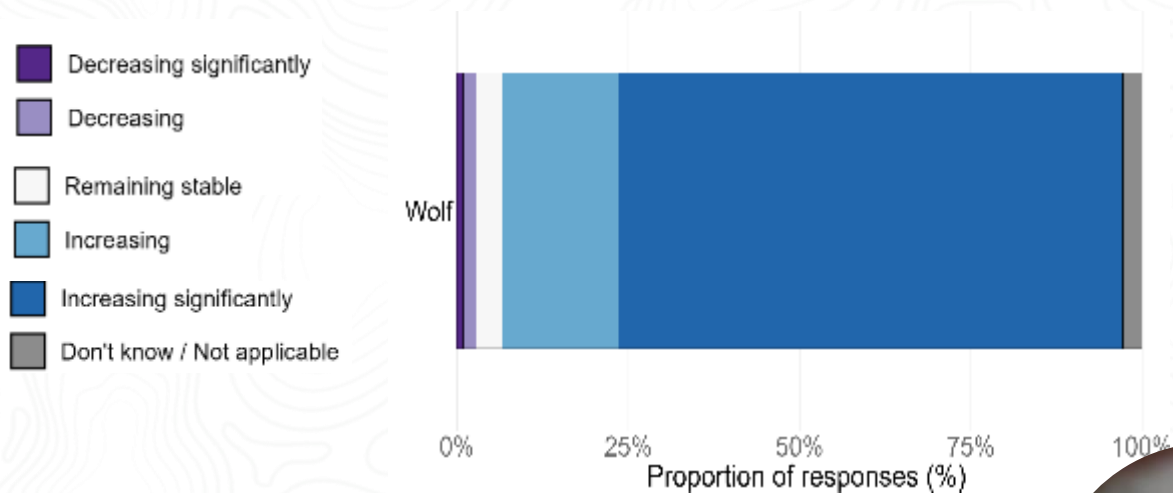


Predator attacks by study area





To what extent are **damages increasing, decreasing or remaining stable** in your area since the last 4 years?

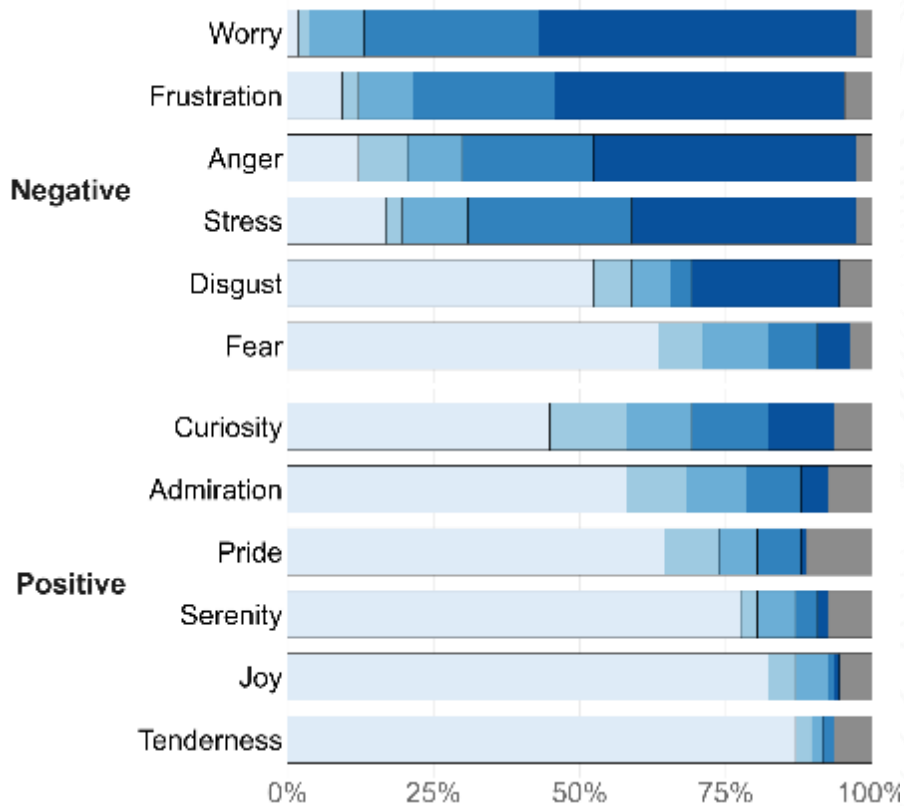


No differences in perceptions according to **area...** or **damage level**





How does living with large carnivores in your area affect you?



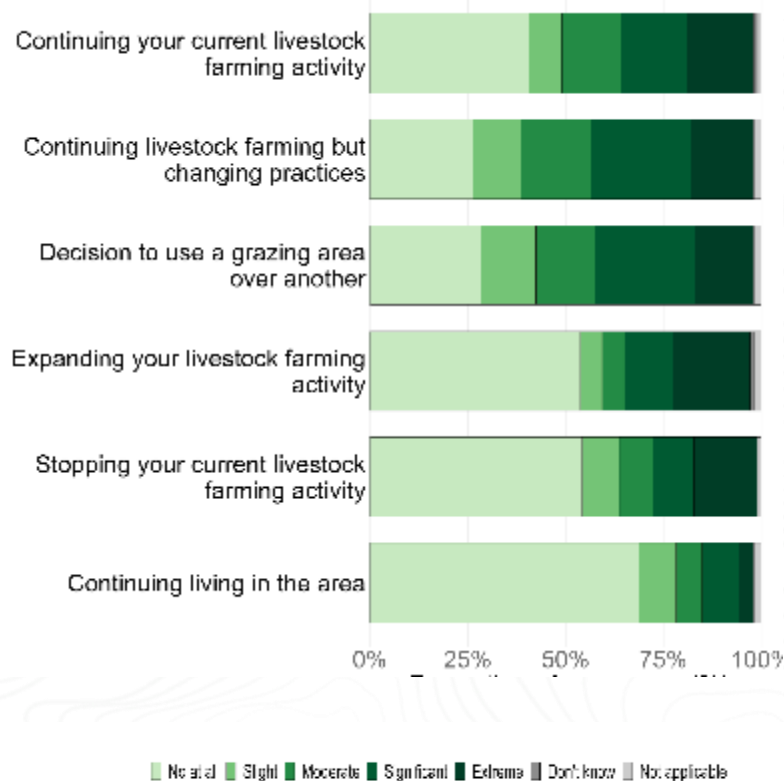
Farmers in **Picos de Europa** (highest social conflict) and **Guadarrama** (highest damage) areas have **more negatives feelings**

No differences in perceptions according to **damages**





To what extent does the presence of large carnivores in your area impact your decision-making with regards to the following actions?



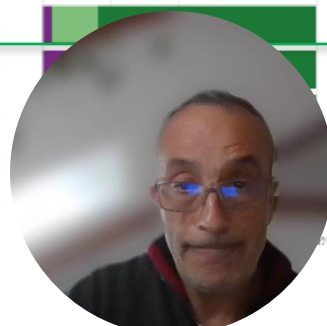
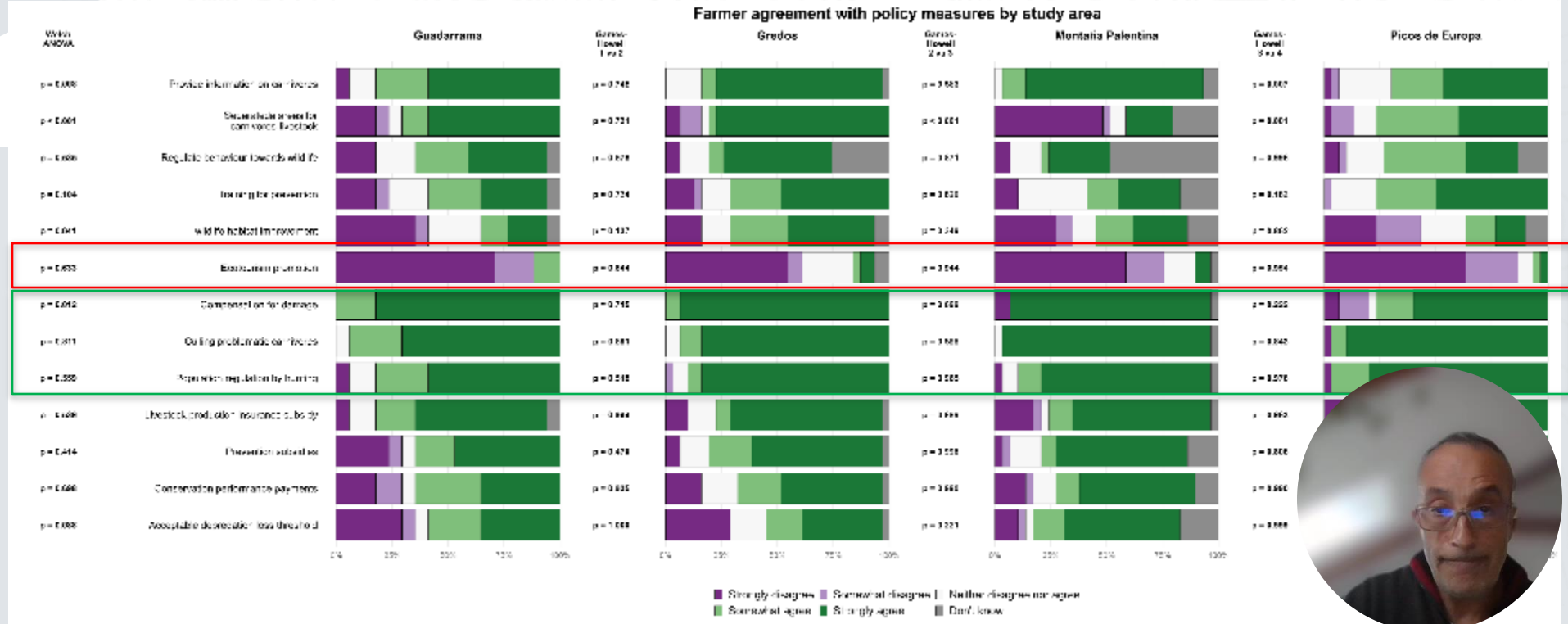
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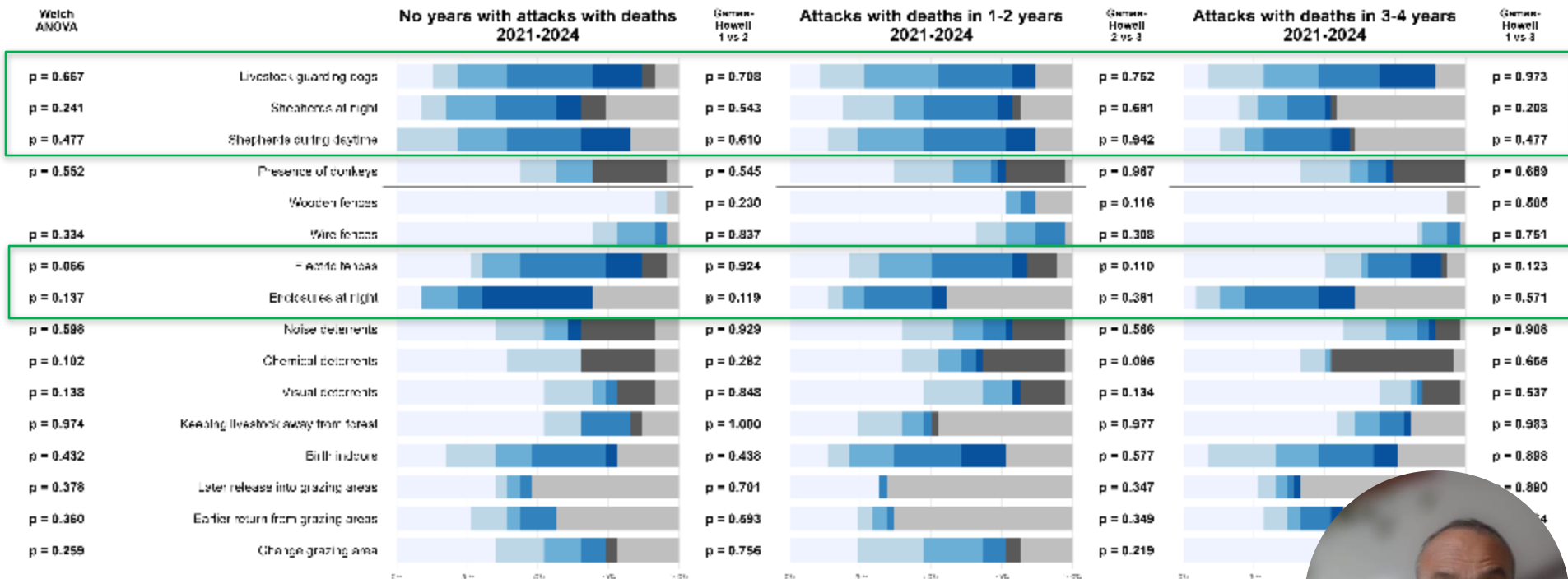


Farmer agreement with policy measures

No differences in perceptions according case study area nor damage level



How would you rate the potential effectiveness of the following damage prevention measures in protecting livestock on your farm from attacks by large carnivores?



No differences in perceptions according to damage level

Not at all effective
 Slightly effective
 Moderately effective
 Very effective
 Extremely effective
 Don't know
 Not applicable



Conclusions

- Farmers' perceptions of conflict with large carnivores, damage prevention tools, compensation schemes, and management alternatives do not appear to depend on individual damage level or case study area.
- Overall, negative views are more frequent.
- There is strong support for compensation and culling programmes.
- Support for tourism-oriented activities is low, suggesting potential conflicts among rural stakeholders.
- Many farm management alternatives and livestock protection tools cannot be applied across all farming systems; mountain and free-ranging systems are particularly vulnerable.
- Further in-depth analysis is needed.



THANK YOU!



FUNDING THROUGH HORIZON EUROPE



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