SUPER-G – Developing sustainable permanent grassland (PG) systems & policies

### **Future pathways for grassland management**

Paul Newell Price & the SUPER-G consortium

GO-GRASS FINAL EVENT Unlocking the Potential of Grass: New business opportunities for rural areas 12<sup>th</sup> March 2024



#### Outline

- What range of ecosystem services can grasslands deliver?
- The importance of multifunctionality
- Influencing factors
- Future pathways for grassland management



# **Grasslands can deliver a range of ecosystem services**

• Food production



#### • Water quality



 Biodiversity & pollination



Mediation of water flows & erosion control



• Climate regulation



• Landscape & recreation



#### **Conclusions of large-scale integrated systematic review**

Schils *et al.* (2022) Permanent grasslands in Europe: Land use change and intensification decrease their multifunctionality, *Agriculture, Ecosystems & Environment* 

- Preventing the conversion of permanent grassland to cropland or temporary grassland secures the provision of multiple ecosystem services
- Intensification of existing permanent grasslands threatens multifunctionality
- Prioritizing non-feed ecosystem services comes at a cost for the provision of animal feed



Multifunctional permanent grasslands increasingly important in agricultural systems



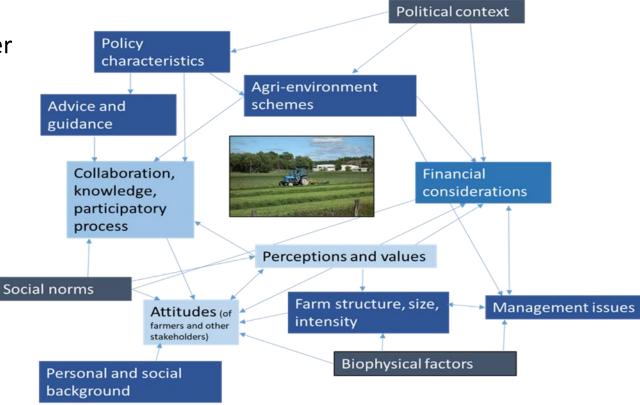
Protection needed to prevent further decline



Optimise management intensity on existing permanent grasslands

## **Unlocking their potential for multifunctionality**

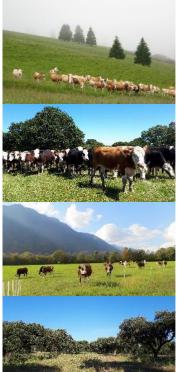
A conceptual map of factors affecting farmer decision-making in relation to grassland management



# Future pathways – *less is more*?

- Less reliance on fertiliser
- Less reliance on purchased feed
- Less focus on specialist breeds
- Better grass utilisation
- Integrate livestock into arable rotations
- Lower cost and energy base
- Policy that recognises the value of ecosystem services
- From exploitation to stewardship

- More legumes
- Focus on meat & milk from grass
- Greater focus on hardy, 'easy care' & native breeds
- Forage systems that are more resilient and sustainable
- Greater rewards for cultural ecosystem services
- Where less demand for meat & dairy products:
  - Bio-based industries?
  - Re-wilding?



"Because we have the capacity to ruin the biosphere on which we depend, we have the necessity to steward it" - Daniel Schmachtenberger, 2024



# Thank you!

On behalf of all colleagues from the SUPER-G team

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