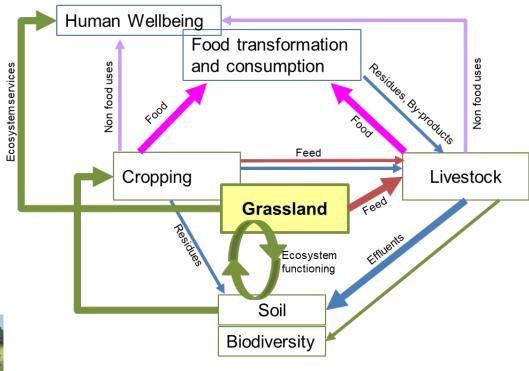
# Grassland at the heart of circular and sustainable food systems

**Synthesis** 







#### Future of grasslands and interactions among stakeholders

- Importance & vulnerability of grasslands in a very changing and uncertain environment (climatic, economic, societal) (Guyomard, Poux)
- Great adaptability potential of the grassland ecosystem (Lüscher, Dumont)
- Solving environmental issues must remain a high priority, even during times of food supply tensions (Guyomard)



#### Future of grasslands and interactions among stakeholders

- Co-creation
  - Stakeholder attitude and perceptions (Tindale, Tonn, Klaus)
  - Participatory approaches, Citizen science (Fernandez-Habas)
  - "Involve the farmers in the initial stage of the research" & "no one size-fits-all strategies" (panel discussion, Dumont, Fleurance)
- Communicating the benefits of grasslands and grassland-based ruminant systems. "Grasslands are not being supported because they are grasslands (Guyomard)"

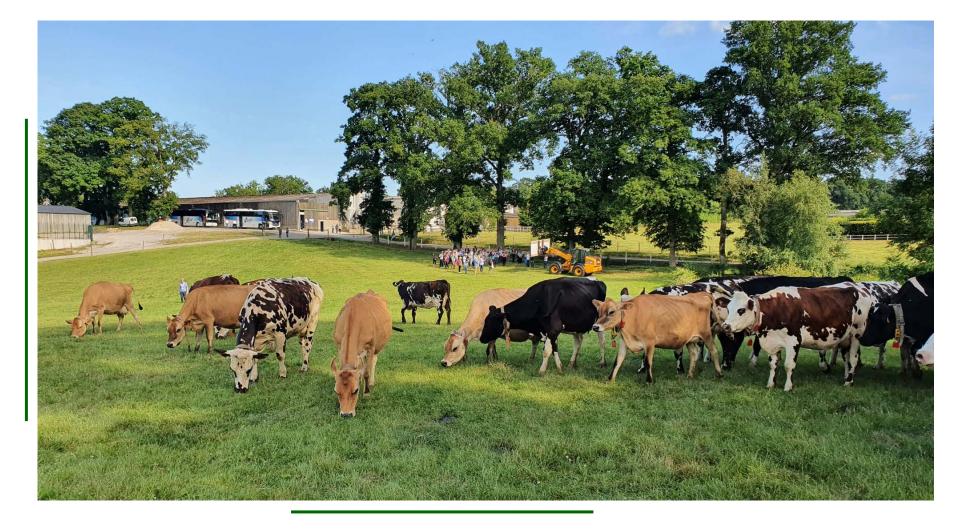






 Avenues to use plant, animal to system diversity to improve resilience to climate and other changes (Lüscher, Dumont, Geffroy, Spani, Wetrom), as well as to plant and animal invasion (Bouchon, Gaier, Klötzi; Morvan-Bertrand, Titera)



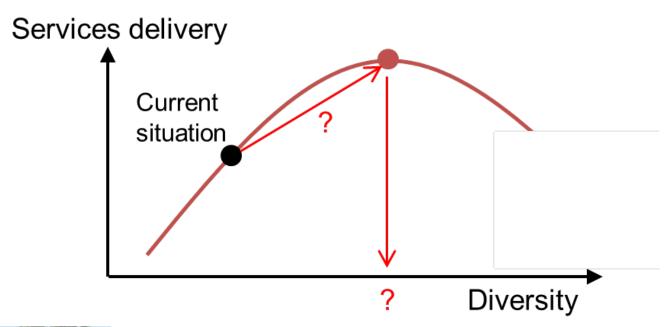




 Understand and learning from experience in "marginal conditions" dry, hot, highlands, .... (Fraser, Komainda) and apply in European present and future climate conditions



#### **System scale**





#### Synergies between animal production, grasslands and crops

 Role of grasslands in reconnecting crops and livestock for circularity and environment (Franzluebbers)



### Coupling at the farm level is not always possible

Lack and cost of infrastructures





Lack of knowledge and skills







#### Synergies between animal production, grasslands and crops

- New technologies to better manage grasslands (Amputu, Männer, Hamidi), or for traceability (Abou el qassim)
- Microbiota diversity of the soil, of the phyllosphere (Dalmasso, Fox, Meuriot)
   Bacterial diversity of pastures → cheese sensory properties (Manzocchi)



#### Bundles of services provided by grasslands

- How permanent or temporary grassland diversity help provide a bundle of services (Allart, Baker, Hearn, Patterson, Cummins, Joly, Mesbahi, Patton, Sidlaukatie)
- Tools for assessing services on-farm (Brun-Lafleur, Carrère, Geffroy)



#### Bundles of services provided by grasslands

- Multifunctionality of grass-based systems in relation to reduced CH<sub>4</sub> emissions (Poux)
- Uncertainties in the quantification of services
   "Available data did not allow for meta-analysis" (Lindborg)
- Convincing the Ruminosceptics requires bulletproof research



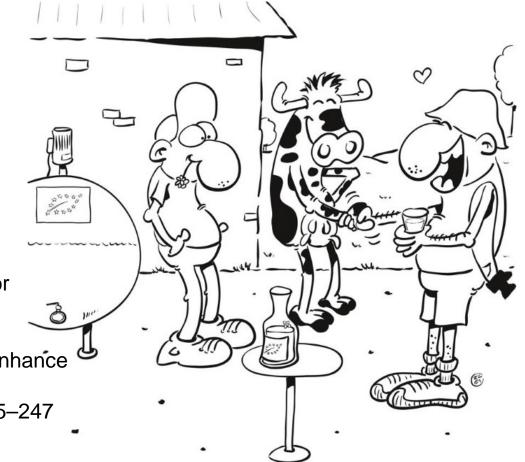
So that we can point even more clearly toward our research





→ Multifunctionality
of Grasslands &
ruminants at the heart
of circular and
sustainable food
systems

Illustration by Z'Lex for Bouttes et al., 2019.
Converting to organic farming as a way to enhance adaptive capacity.
Org. Agr. (2019) 9:235–247



## Multifunctionality of EGF Meetings: For Science, Food and Wellbeing



29th GENERAL MEETING





#### Thank you



Sylvain Plantureux & René Baumont

All the photographs!

