# CONTEXT PROFILE





**FARMER** Mark Bateman



INNOVATION

Use of clover scoring on Pasturebase Ireland application



MAIN DOMAIN OF THE INNOVATION Improvement of nutrient cycle



AGROCLIMATIC AREA Atlantic north



**CLIMATE** Very high rainfall



**SOIL TYPE** Loam



**MANAGEMENT** Pasture dairy



**TECHNICAL** Computer-based











FINANCE/INVESTMENT

**MARKET** Local-rural

**SOCIAL** Full-time farmer



# **CONTEXT PROFILE** IRELAND

Case Study: IE_07	Agroclimatic Zone						
Item (Key Innovation Elements)	Alpine	Atlantic Central	Atlantic North	Atlantic South	Boreal	Continental North	Contin Sou
Availability and access to locally adapted, user-friendly decision support tools	++	+	+++	+++	+++	+++	++
Capability to operate decision support tools (e.g. <i>PastureBase Ireland</i> ) for farm management	+++	+++	+++	+++	+++	+++	++



Generic information/not relevant



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## **Implementation Gaps**

- Lack of availability of locally adapted reliable grassland management decision support tools
- Time effort to perform measurements (e.g. compressed sward height) to be fed into the decision support tool (if required by the tool)

### **Research Gaps**

• Reliable models of various variables (e.g. remote sensing data, biomass quality and quantity, animal movement data, weather data etc.) need to be synthesized and put into a practical app for farmers to use on a daily basis

• Make use of the herbage measurements with the help of an advisor



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## **Suggestions to Adapt**

# **COST-BENEFIT ANALYSIS**

#### **INVESTMENT COSTS**

Total initial investment costs at start up:

- Initial authorisation costs (e.g. sanitary, veterinary, etc.)
- Initial advisory costs
- Initial buildings and machineries
- Initial certification costs
- Initial working capital (personal qualification, marketing and promotion, etc.)

#### **ON-GOING COSTS**

On-going advisory costs	not applicable/not known
On-going certification costs	low
On-going buildings and machinery costs	high
On-going working capital	not applicable/not known

#### **BENEFITS RELATIVE TO ORIGINAL SYSTEM**

#### • Economic

Reduction in energy consumption (electricity; fuel consumption)

Reduction in input use (fertilizers; pesticides; feed) etc.

Payback period

Product value added

Additional farm income through agroecological/agri-environmental payment schemes

• Environmental

Animal feed self-sufficiency increase

Biodiversity increase

Improved nitrogen cycling

Soil regeneration

Animal health and welfare improvement

• Social

Workload reduction

Engagement of young generation



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low	
not applicable/not known	
low	
mid	
not applicable/not known	
low	

mid
high
mid
not applicable/not known
not applicable/not known

not applicable/not known
mid
high
not applicable/not known
not applicable/not known

not applicable/not known
not applicable/not known

# Literature

## English

- https://doi.org/10.1079/9781780644981.0139 PastureBase Ireland: A grassland decision support system and national database ScienceDirect
- <u>https://doi.org/10.1111/gfs.12577</u> (Study on the general potential of decision support tools in grazing)
- <u>https://doi.org/10.1117/1.JRS.18.017502</u> (Study on the general potential of decision support tools in grazing)
- <u>https://www.teagasc.ie/media/website/publications/2019/Pasture-Base-Ireland.pdf</u>
- <u>https://www.researchgate.net/publication/339264599\_PASTORI\_A\_Smartphone\_Application\_to\_Facilitate\_Grazing\_Management</u>



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