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# Palus Demos

## Introducing Palus Demos Large Scale Paludiculture Demonstrators (50ha+)

Presentation by Niall Ó Brolcháin to the PaluWise Kickoff Meeting in Oulu Finland

18<sup>th</sup> to 20<sup>th</sup> March 2025



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# Our Team

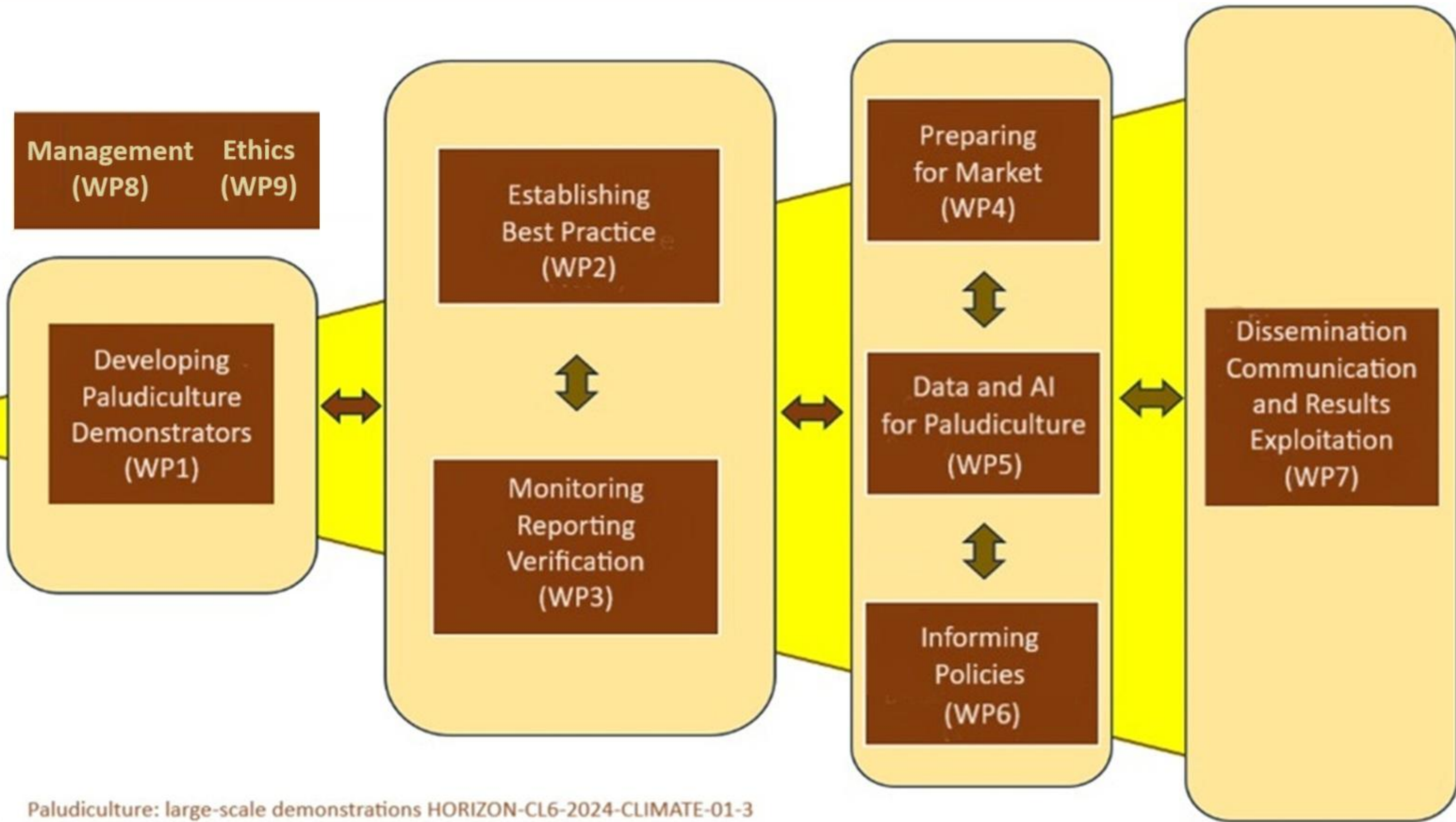


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# Delivering 3 Large Scale Paludiculture Demonstrators

# Palus Demos

## Project countries:

Ireland, Netherlands, United Kingdom,  
Austria, Germany

## Budget:

€10 million

## Project duration:

4 years (Feb 1<sup>st</sup> 2025 – Jan 31<sup>st</sup> 2029)

## Project partners:

26 Partners from 5 countries

## Paludiculture 50ha Demonstrators:

Ireland – Ballaghurt

Netherlands – Burkmeer

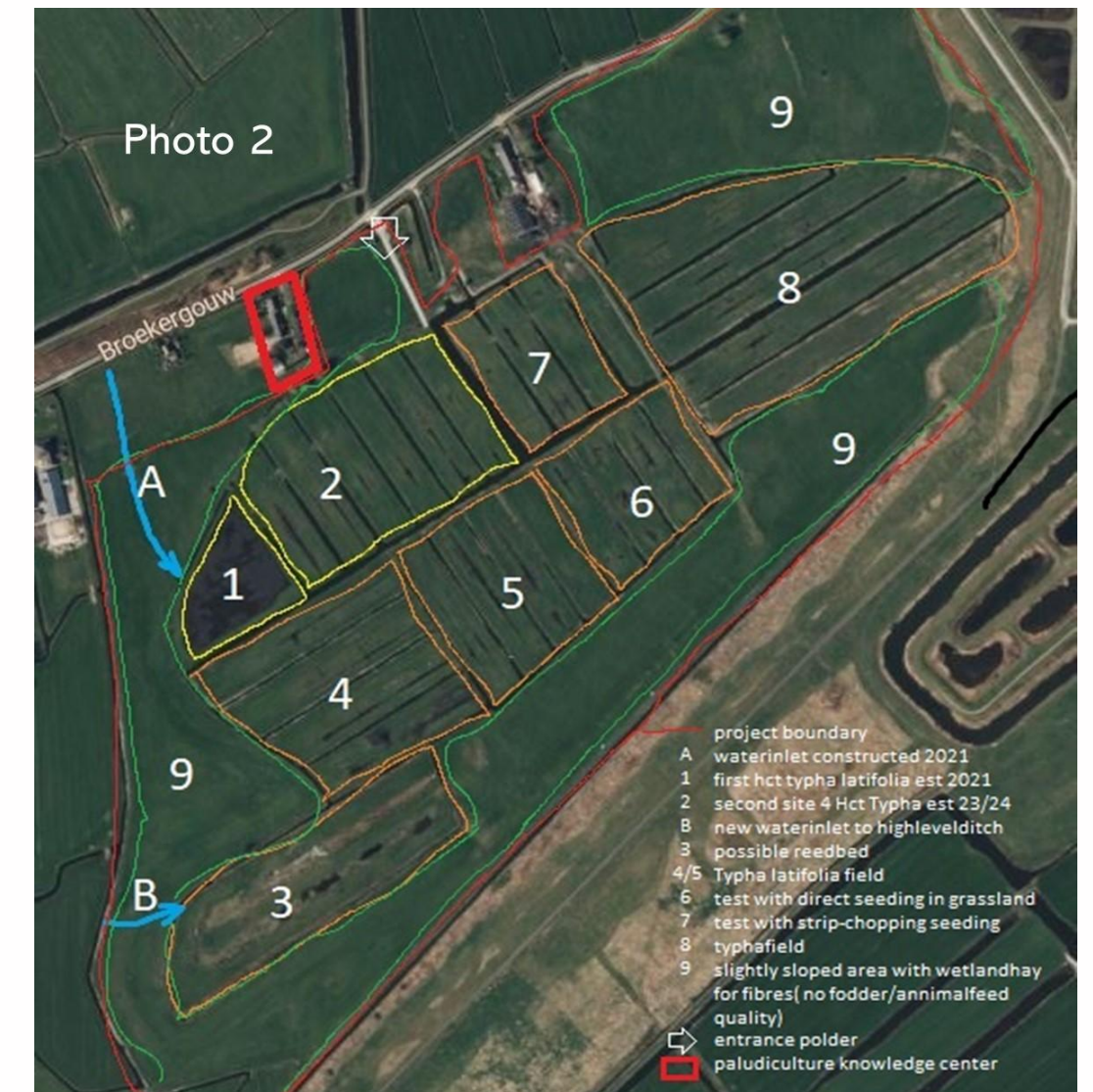
United Kingdom – Greater Manchester &  
Lancashire Mosslands





## Paludiculture Demonstrator Netherlands

**Partners:** Struunhoeve Agri B.V., Van Hall Larenstein Uni. Appl. Sc., Uni of Applied science Utrecht, Universiteit van Amsterdam, Vrije Universiteit Amsterdam and Stichting Wetland Products collaborating with Municipality of Amsterdam, Aarhus University, Province Friesland, Kingspan International (Netherlands), Biositrum and Landscape Noord-Holland.



### *Burkmeer near Amsterdam*

The ultimate goal of the Dutch site is to produce enough Typha-biomass to facilitate a small factory producing mineral-binded “Typhaboard”, and in this way to kickstart the local biobased circular building industry as well as delivering a stable, viable income for Farmers!



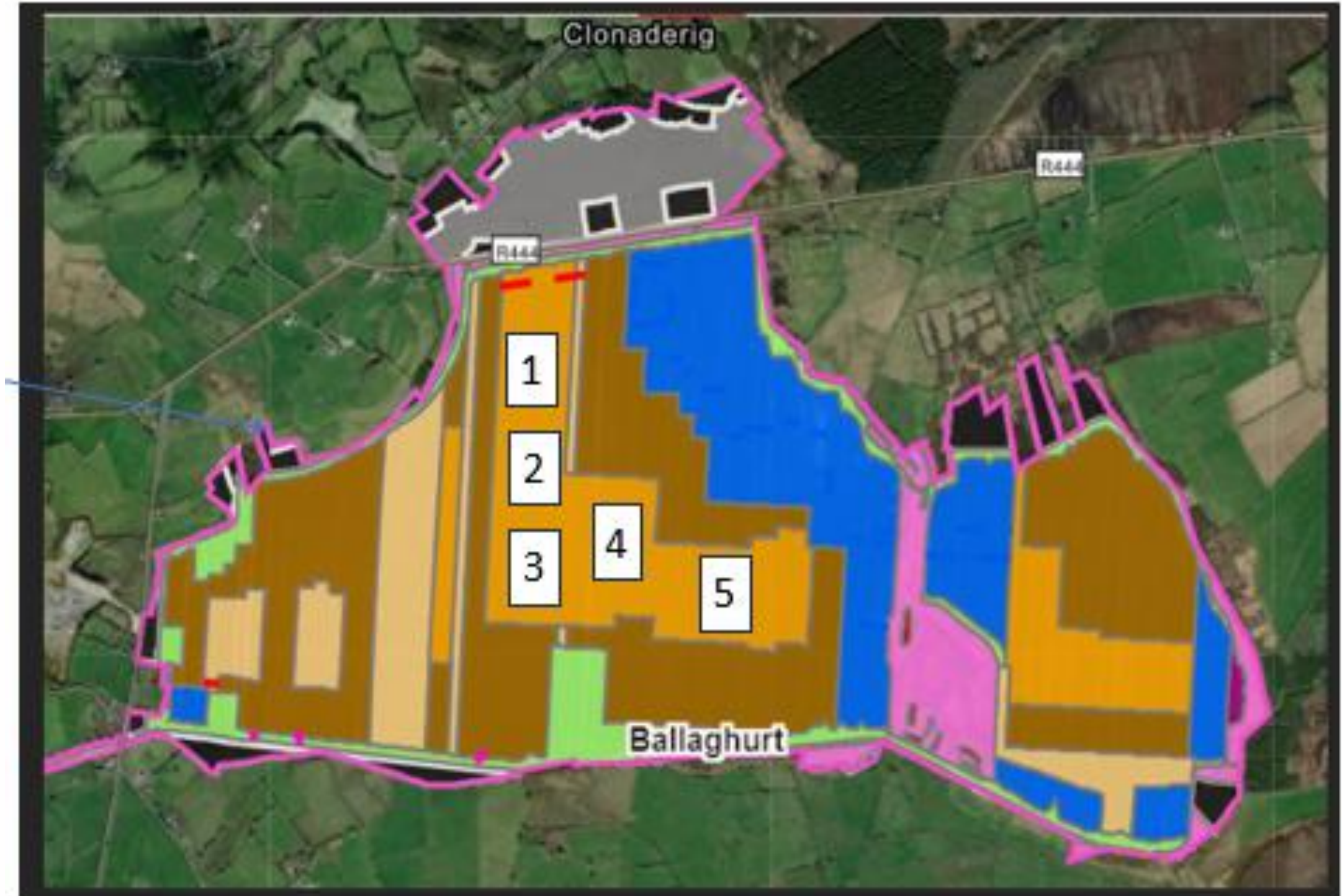
# Paludiculture Demonstrator Ireland



**Partners:** University of Galway, (Coordinator), Bord na Móna, Aibhainn Beo (The Rivers Trust), Growing Media Ireland, Forum Connemara, Peatland Finance Ireland

## Ireland's demonstrator actions:

- 1) Further establish soil-carbon storage
- 2) Inform future voluntary carbon markets
- 3) Wetland farming by Sphagnum cultivation
- 4) Carbon farming by diverse paludiculture crops
- 5) Create Knowledge Transfer groups
- 6) Generate landscape-scale financing
- 7) Demonstrate low-cost monitoring
- 8) Establish a Peatland Centre of Excellence



**Irish Demonstrator site at Ballaghurt**





# Ballaghurt Demonstrator

Bord na Mona





# Derreighter Farms

## Crop Options

Blueberry

Aronia

Sphagnum

Cranberry

Typha

Herbs

Swamp  
Ash

Hemp





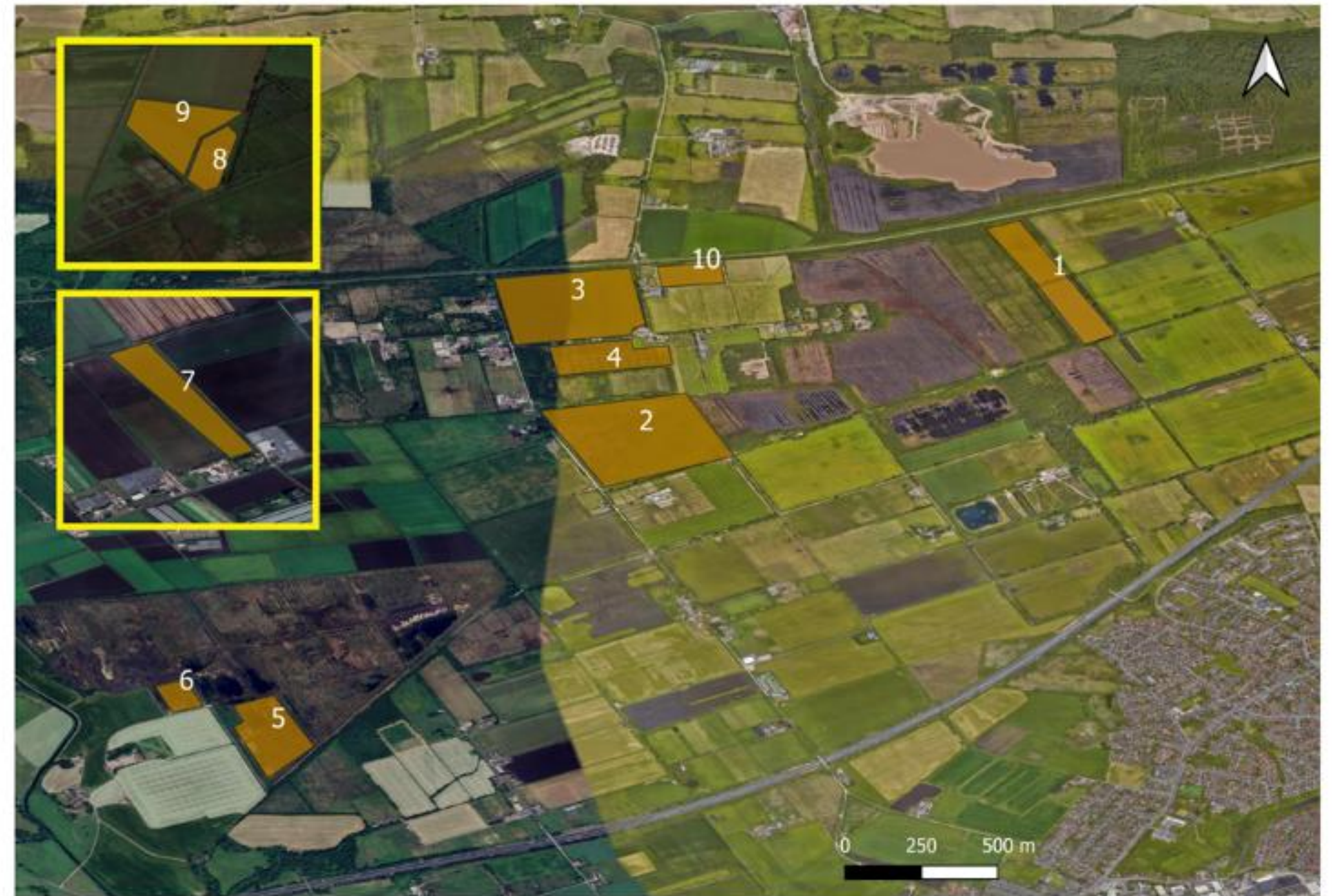
# Paludiculture Demonstrator United Kingdom



**Partners:** Manchester Metropolitan University, Liverpool John Moores University, Natural England, IUCN UK Peatland Programme, Micropropagation Services, Wright Farm Produce Ltd, Saltyco, Lancashire Wildlife Trust, The Andersons Centre

## The UK demonstration site will seek to:

- Support monetisation for carbon crediting
- Enhance and extend existing wetter farming sites
- Complete crop cycles to harvest for Sphagnum, Typha and wetter food
- Create pathways for conversion of degraded agricultural land
- Add additional carbon into peat
- Demonstrate paludiculture at landscape level

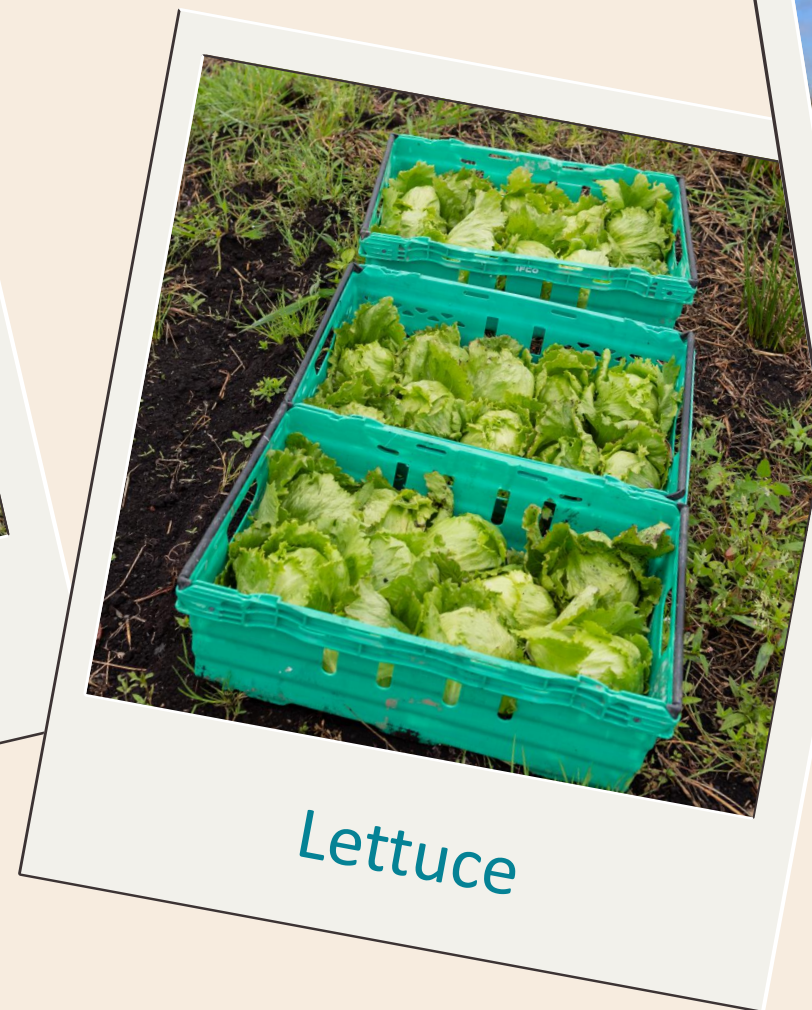


## *Greater Manchester and Lancashire Mosslands*



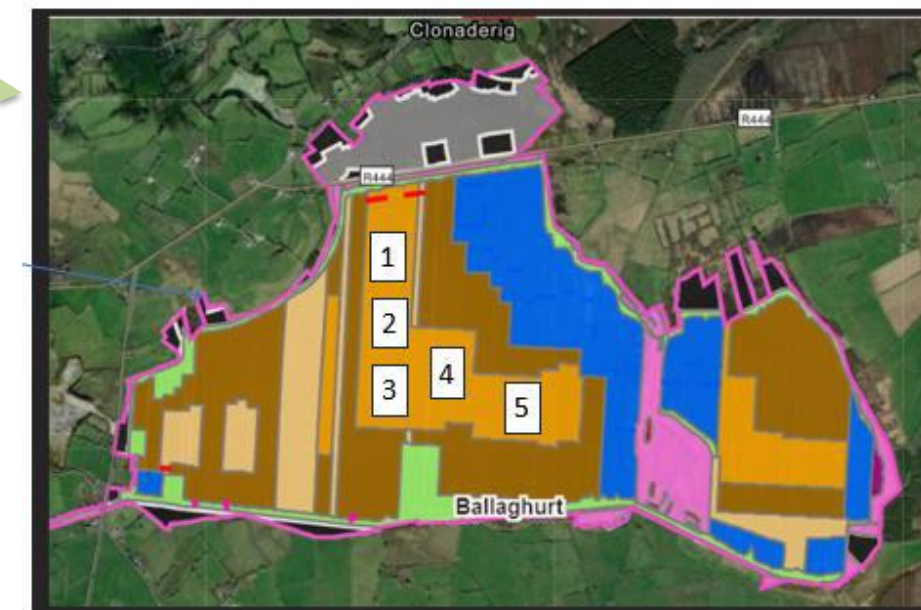
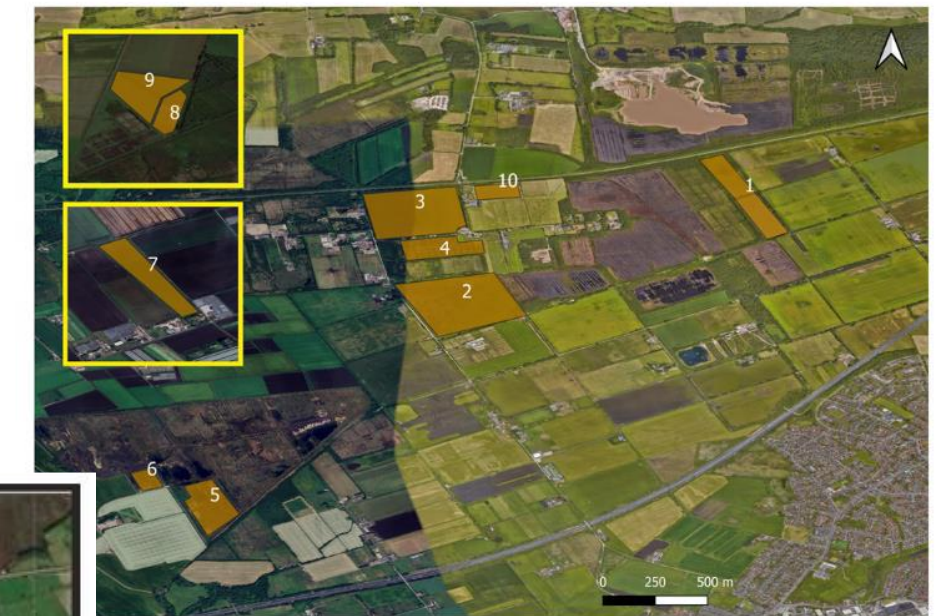
# Palus Demos

## UK Trial sites overview





# WP1 Developing Paludiculture Demonstrators



(WP 1)  
Developing Paludiculture  
Demonstrators



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LOON- EN MAAIBEDRIJF



WP leader - Developing Paludiculture Demonstrators

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101182338 (Palus Demos HORIZON-CL6-2024-CLIMATE-01)





# WP2 Transitioning from degraded peat to a sustainable wet-agriculture production system

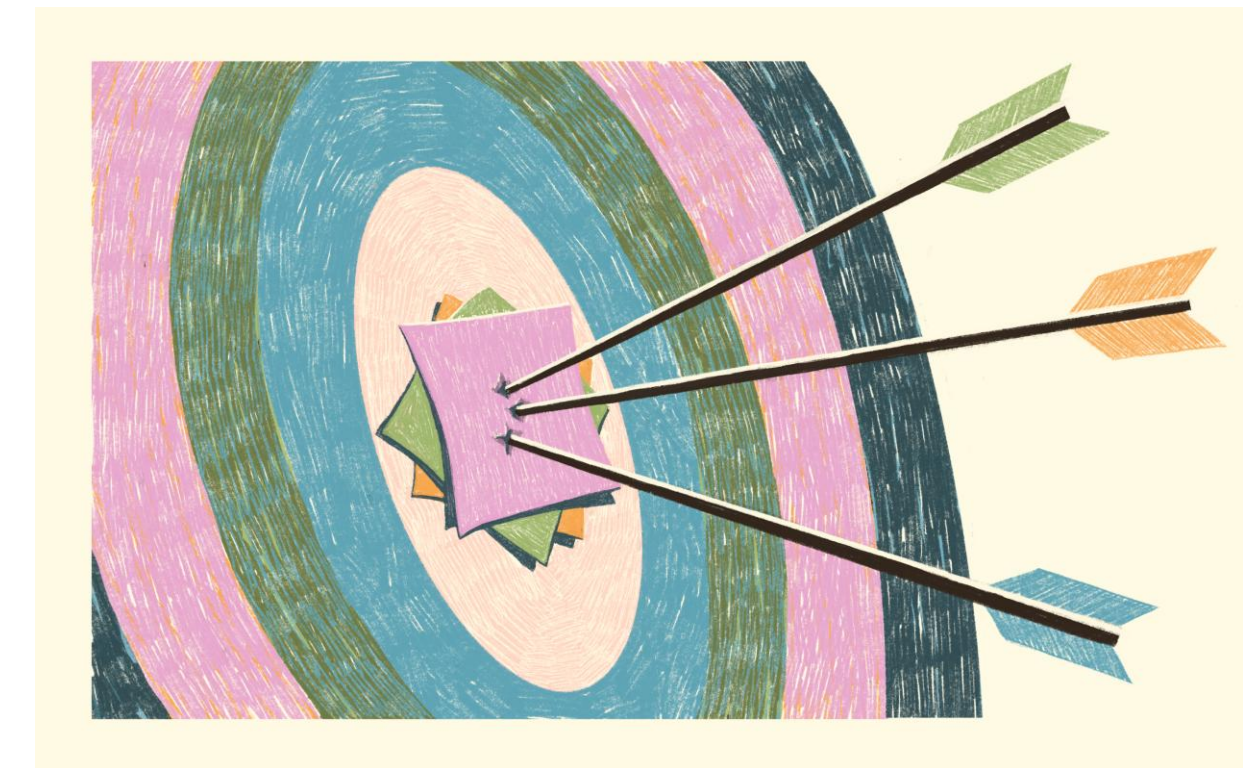
Know how to combine biomass production in wet conditions with peat protection (carbon and nutrient stock in the ground)

Know how to maximise ecosystem services: trade-off between provisioning and regulating/supporting services: water quality and buffering, and creating habitats for biodiversity

D2.1 – State of the art Review

D2.2 – Assessment Report from all sites

D2.3 – Best practice Handbook for Paludiculture





# WP3 Monitoring Reporting and Verification

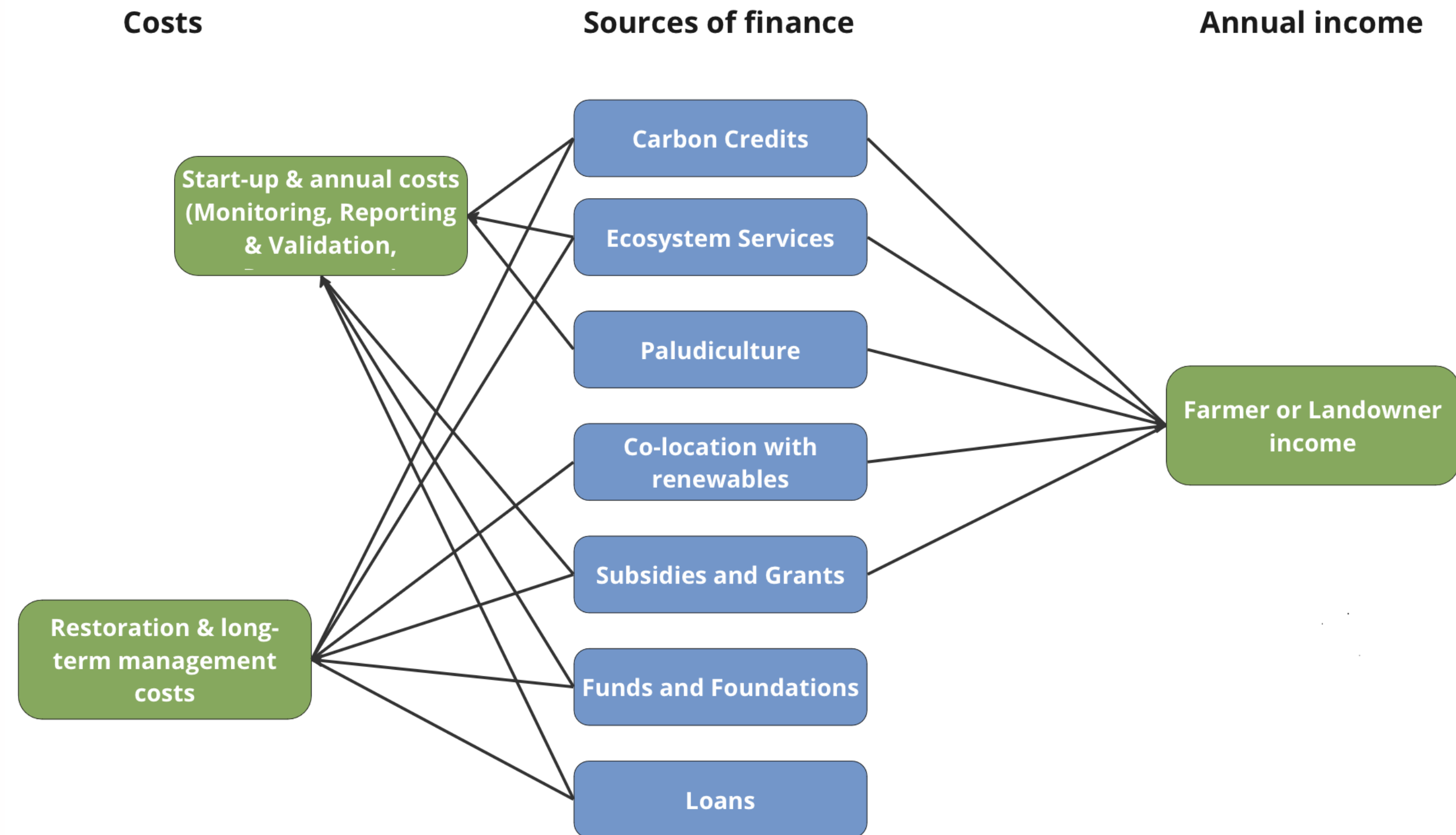
- Carbon credit schemes require robust data to validate carbon savings
- Subsidy schemes that reward rewetting also need evidence
- Traditional monitoring is expensive and limited both spatially and temporarily
- Current emissions and potential savings at a landscape scale are poorly understood
- Can we develop low-cost techniques to:
  - support land-owners to access low-cost technologies instead of research grade methods
  - link on-the-ground data with Earth Observation Models to provide landscape scale validation and predict GHG emissions reductions



# WP4 Preparing for Market

## Blended Finance Model

- Materials development and capacity building on landscape finance
- Co-creation workshops involving international experts
- Investment opportunities for paludiculture
- Develop sustainable socio-economic models
- Develop accounting methods for carbon removals
- Creating a long-term business plan for each demonstrator





# WP5 Developing the SmartPaludi decision support platform

## SmartPaludi Features:

- Data Integration and Diverse Sources
- Real-Time Data Processing
- AI-Powered Predictive Analytics
- User-Friendly Decision Support Platform
- Continuous Validation and User Engagement

### Visualizations and Insights



Sustainable policies  
and decision making



Accessible visual

### AI Model Development



### Data Collection and Integration



Paludiculture data

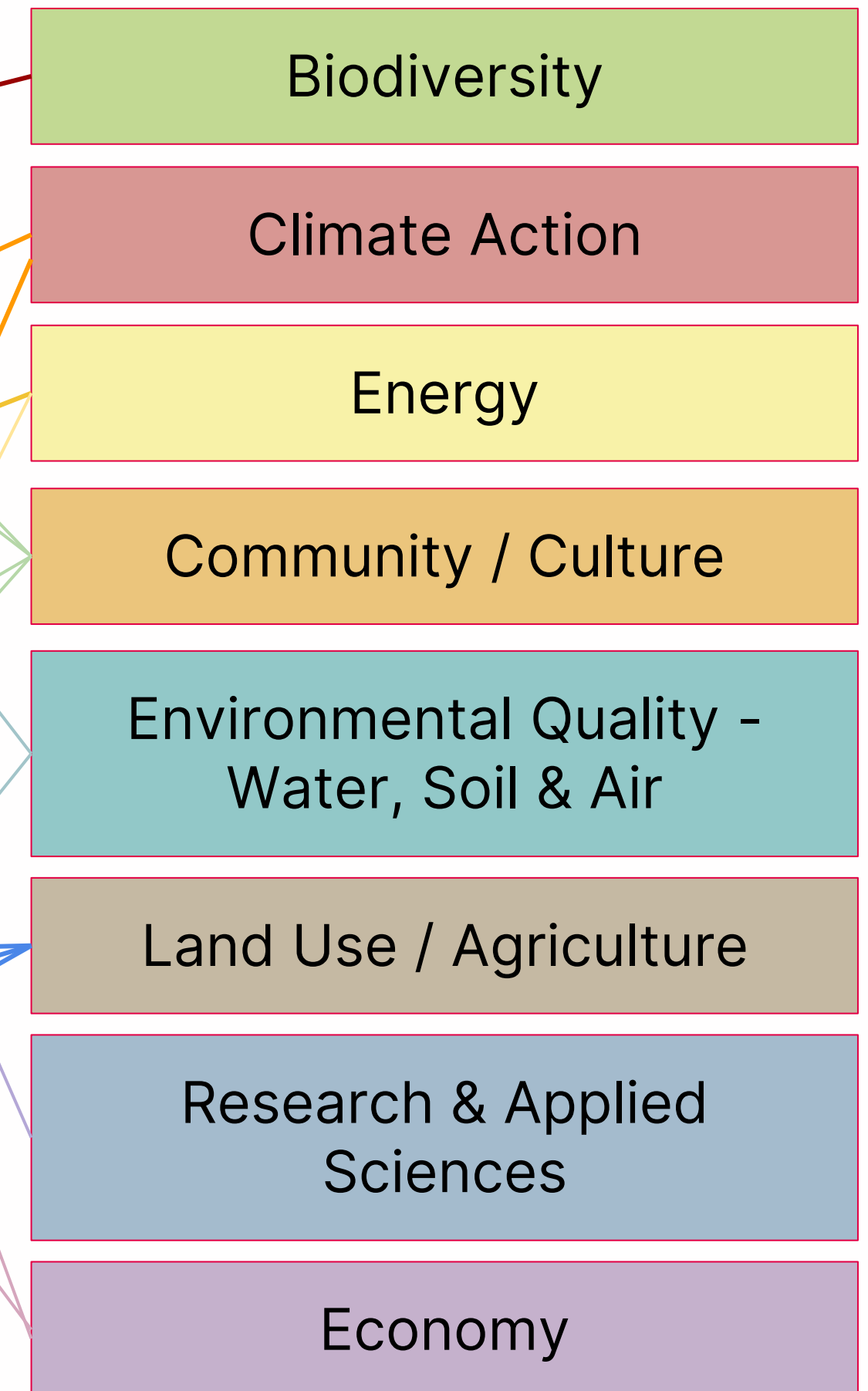


# WP6 Informing Policies

## EU Green Deal

|   |
|---|
| Transition to a circular economy                  |
| Preserving Europe's natural capital               |
| Sustainable Transport                             |
| Achieving Climate Neutrality                      |
| Clean, Reliable and Affordable energy             |
| Financing the transition                          |
| Leave no one behind (Just Transition)             |
| Towards a modernised and simplified CAP           |
| The transformation of agriculture and rural areas |
| Farm to Fork                                      |
| A zero pollution Europe                           |

## Policy Classifications



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# WP7 Communication WP8 Management WP9 Ethics

Management includes a task running for the duration of the project:

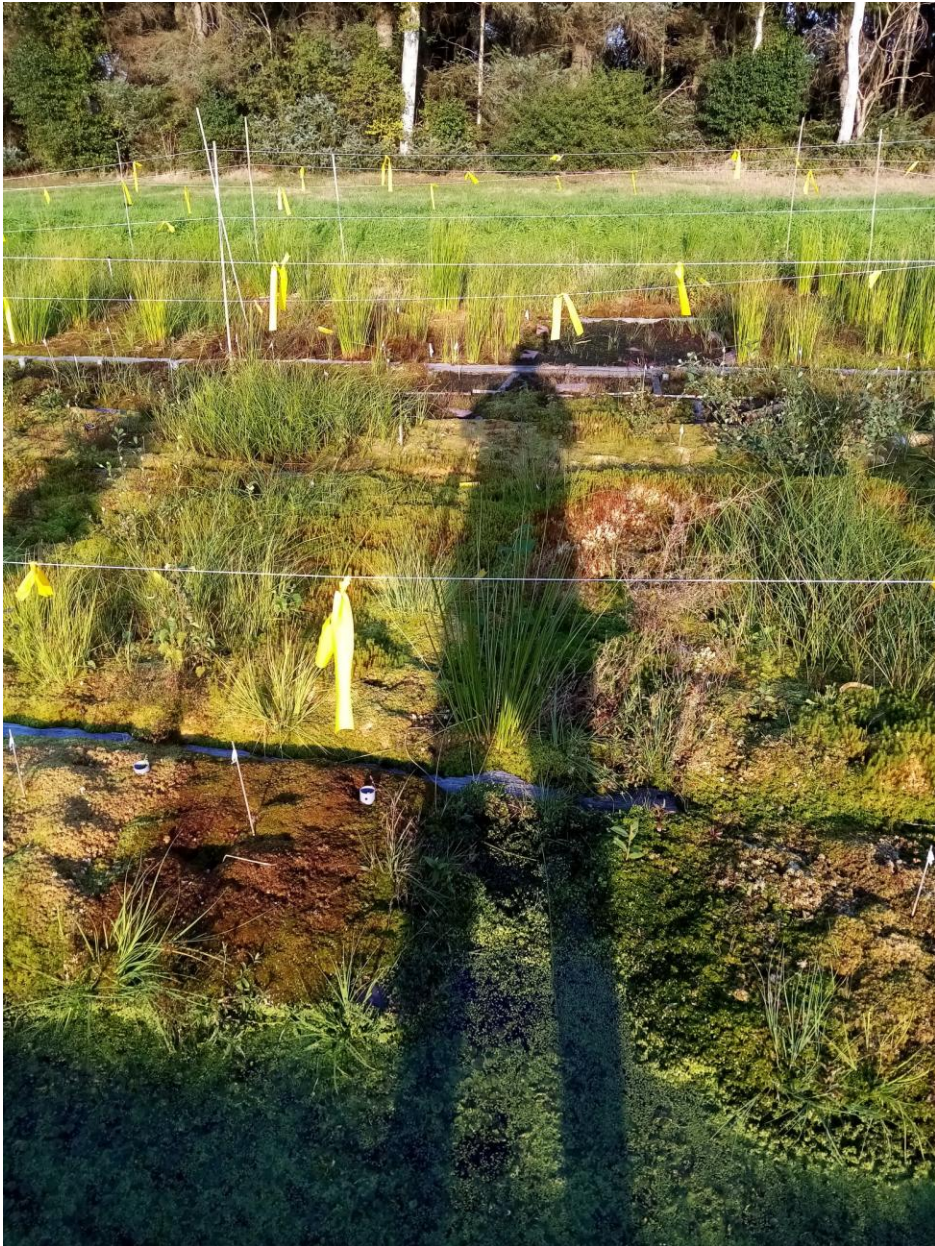
Task 8.5: Collaboration with related projects

And a deliverable due at the end of July 2025:

D8.3 Collaboration Roadmap



# Sphagnum Farming



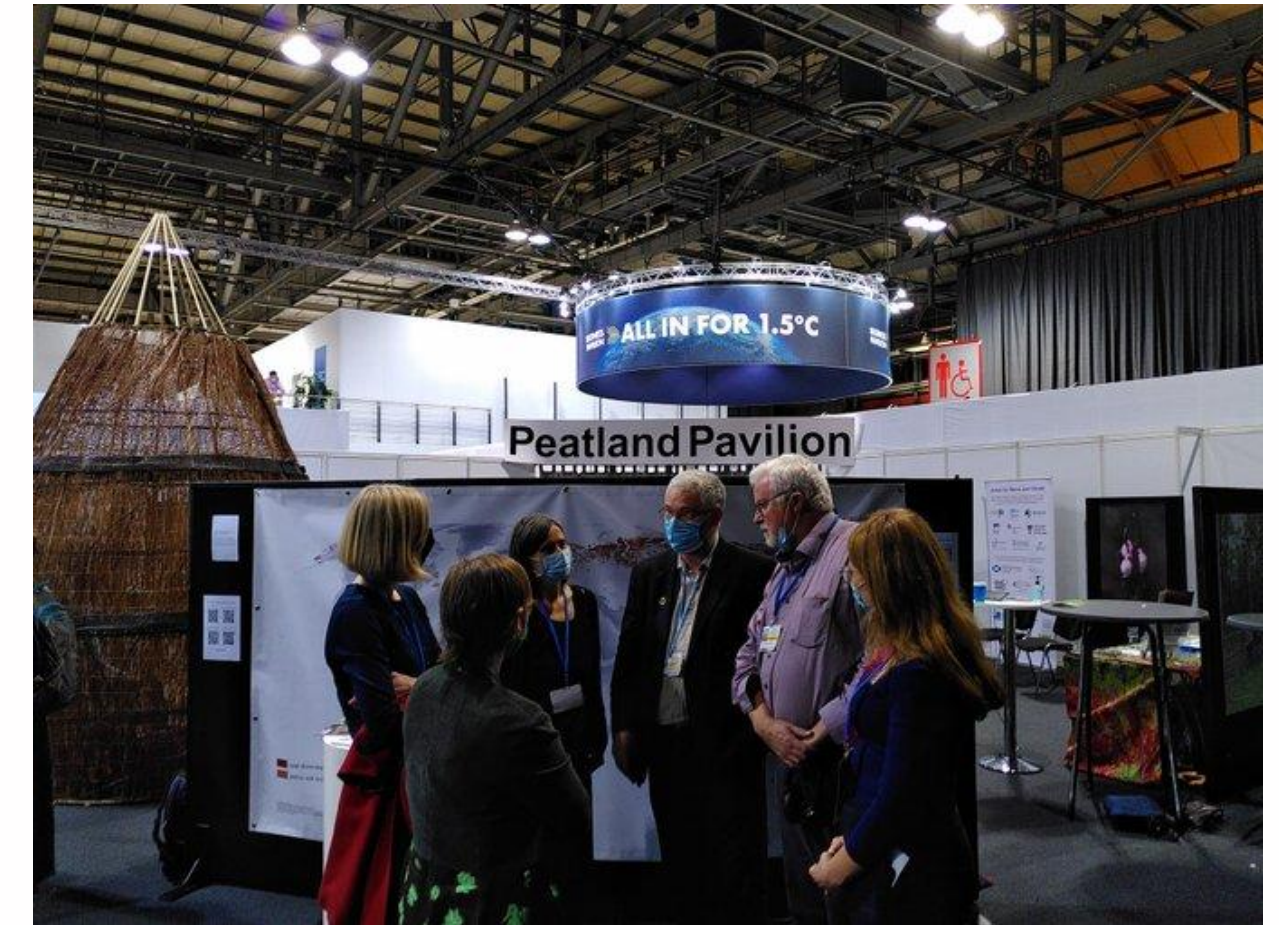


# Paludi Typha



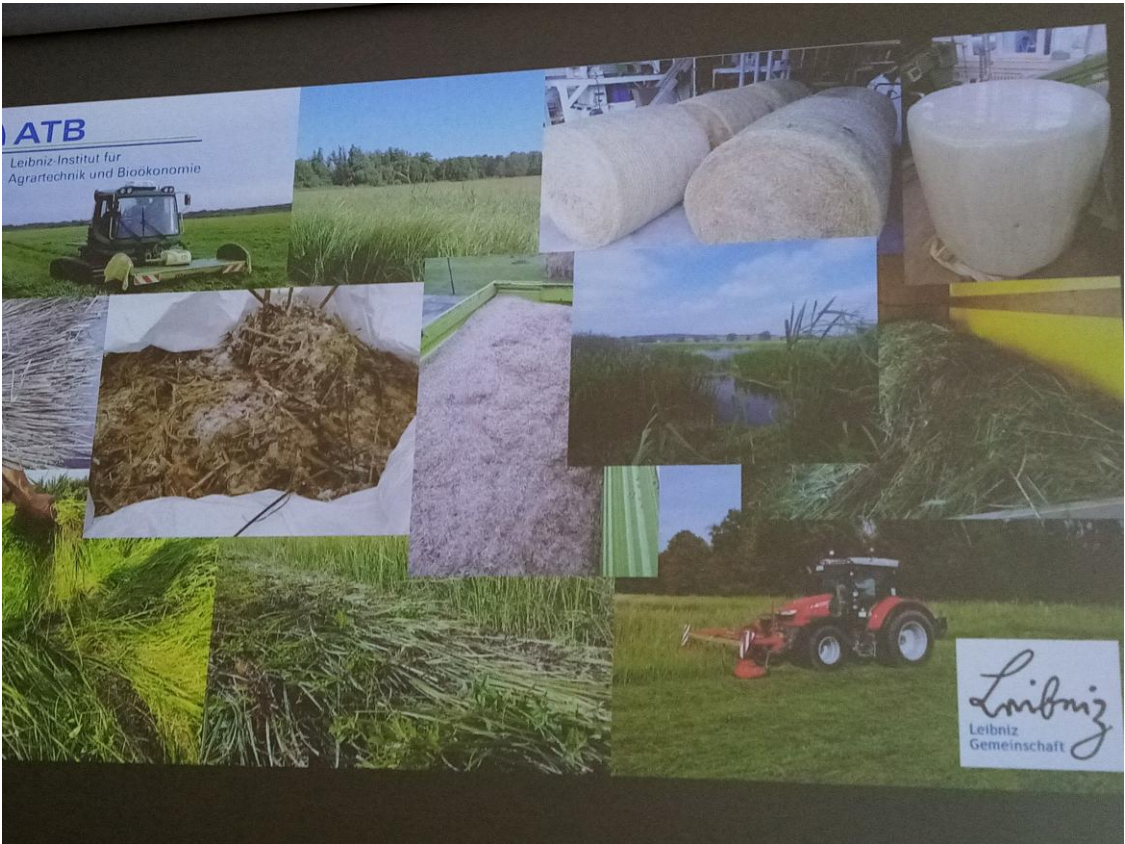


# Paludi Construction





# Paludi BioMass



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**Thank you!**  
**Any Questions?**



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