

# POTENTIALS AND CAPACITIES OF CLIMATE CHANGE MITIGATION BY PEATLAND REWETTING AND WET AGRICULTURE ON PEATLANDS (PALUDICULTURE) IN THE BALTIC COUNTRIES




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On behalf of:  Federal Ministry  
for the Environment, Nature Conservation  
and Nuclear Safety



Implemented by:





## EUKI – Paludiculture in the Baltics

Project Duration: 10.2017-08.2020

Implemented by:



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On behalf of:



Federal Ministry for the  
Environment, Nature Conservation,  
Building and Nuclear Safety



European  
**Climate Initiative**  
EUKI

# EUKI – Paludiculture in the Baltics

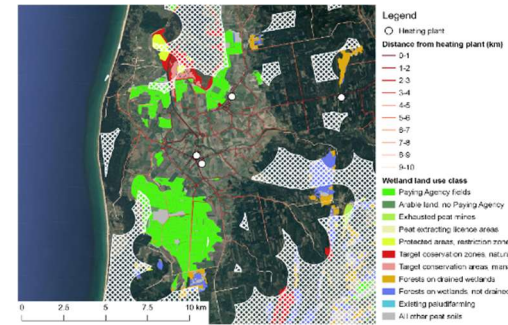
**Feasibility studies** (GIS, legal studies)  
=> Desktop analyses for Baltic paludiculture implementation potential

**Knowledge transfer** on paludiculture  
=> Stakeholder dialog and workshops, study tour

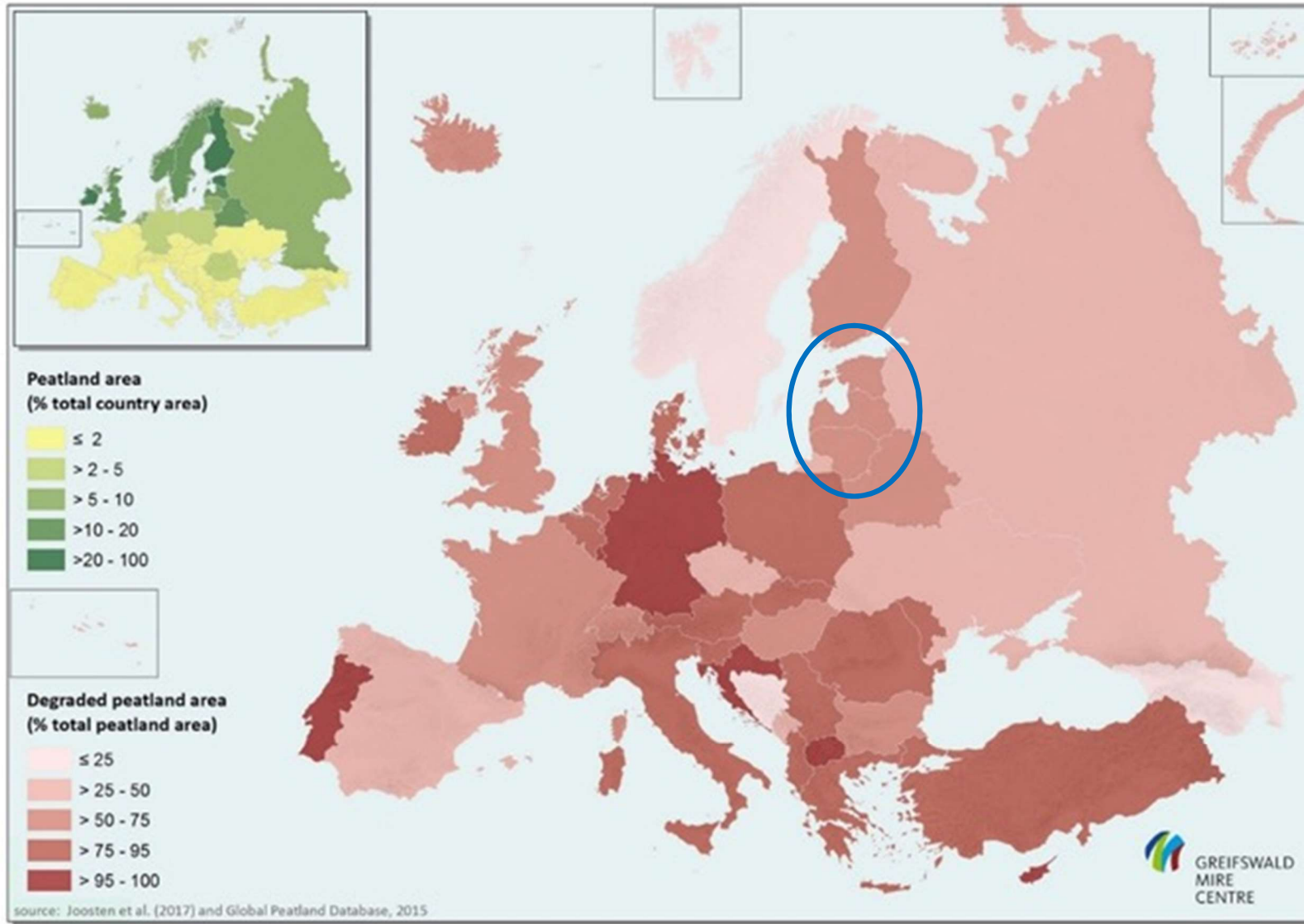
**Advocacy** on framework conditions and EU policies  
=> Policy briefs and continuing stakeholder dialog

**Project materials online:**

<https://www.succow-stiftung.de/en/peatlands-climate/euki-paludiculture>



## Peatlands in the Baltics

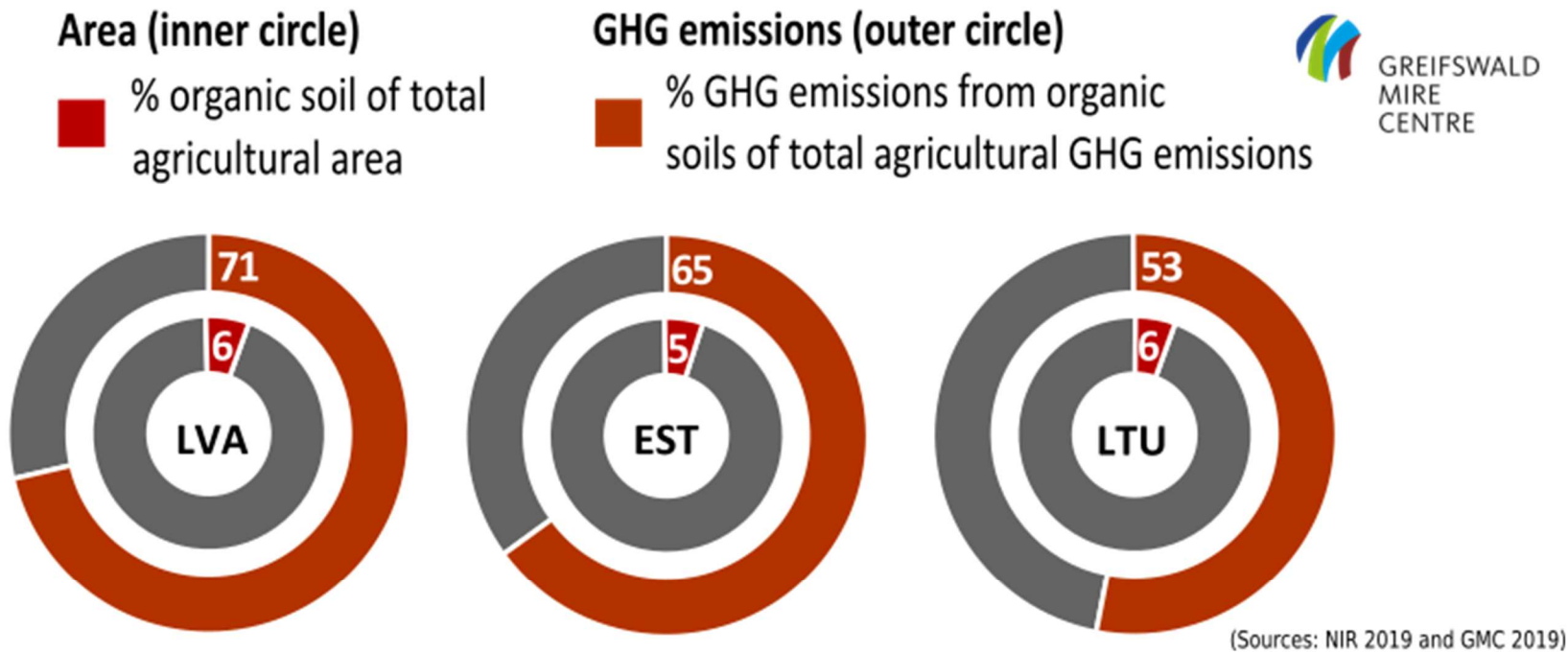


⇒ ~24 650 km<sup>2</sup> total peatland area.

⇒ ~70 % are drained and degraded (agriculture, forestry, and peat extraction).

⇒ Baltic countries top GHG emitters from drained peatland soils in Europe (LV 5th, EE 8th, LT 9th).

# Peatlands in the Baltics



⇒ Agricultural GHG emissions stem largely from drained peatland soils

⇒ Rewetting and transformation to low emission management in paludicultures is a promising CCM.

# Multistep feasibility analysis

## GIS spatial data modelling

**Step 1:**  
Land  
feasibility

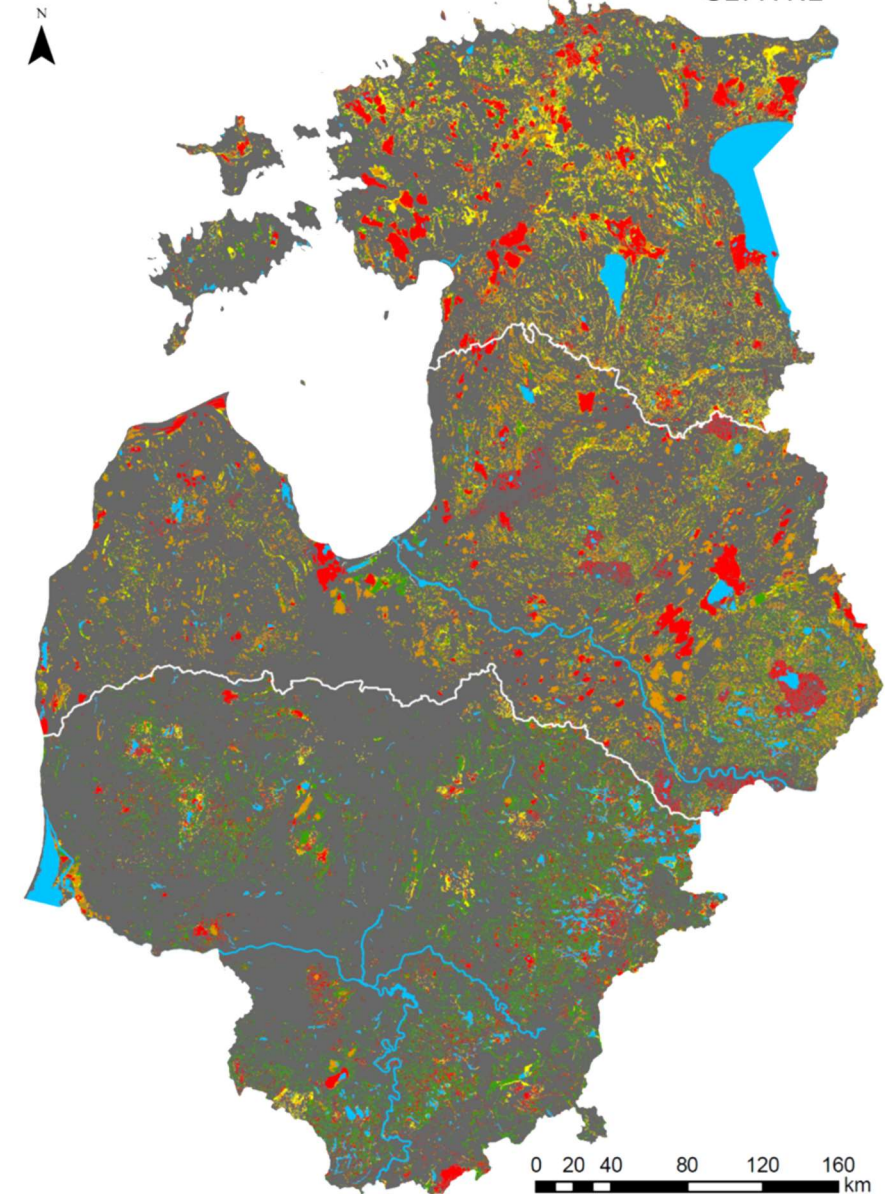
Land use, Soil inventories  
(peat soils, fen, bog,  
transition mire), land  
cover, drainage level

**Step 2:**  
Infrastruc-  
ture

Roads, railways,  
electricity & heat grids,  
biomass heating plants  
and processing  
enterprises

Pan-Baltic  
Readiness cluster  
Map

Detailed country  
readiness cluster  
Maps



## Suitability classes:





No restriction: Agricultural land **fully suitable** for near-term paludiculture implementation

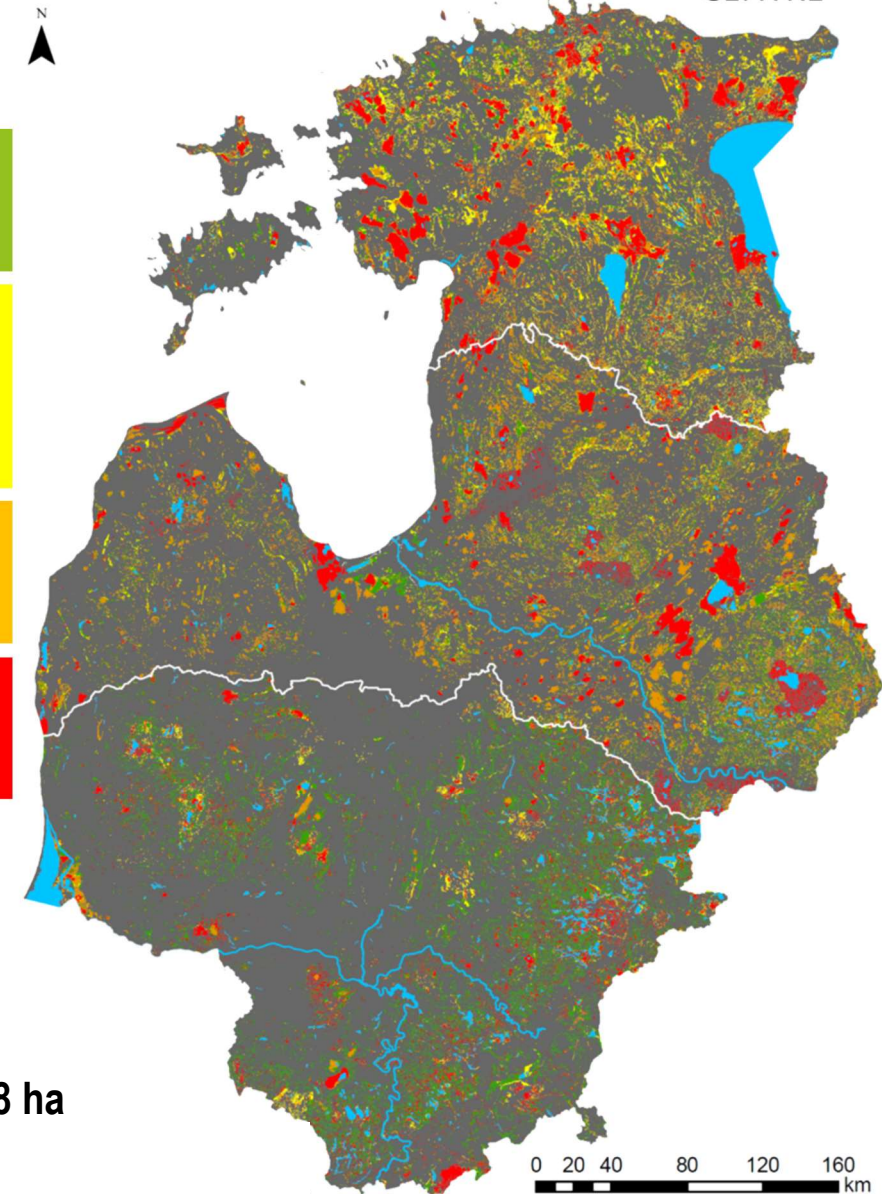
Minor restriction: Management or status which can be changed to paludiculture but might **exclude some options** e.g. special plantations and restricted management in protected areas

Medium-major restrictions: Management which **strongly limits options** or need major efforts to achieve permission for paludiculture e.g. forestry

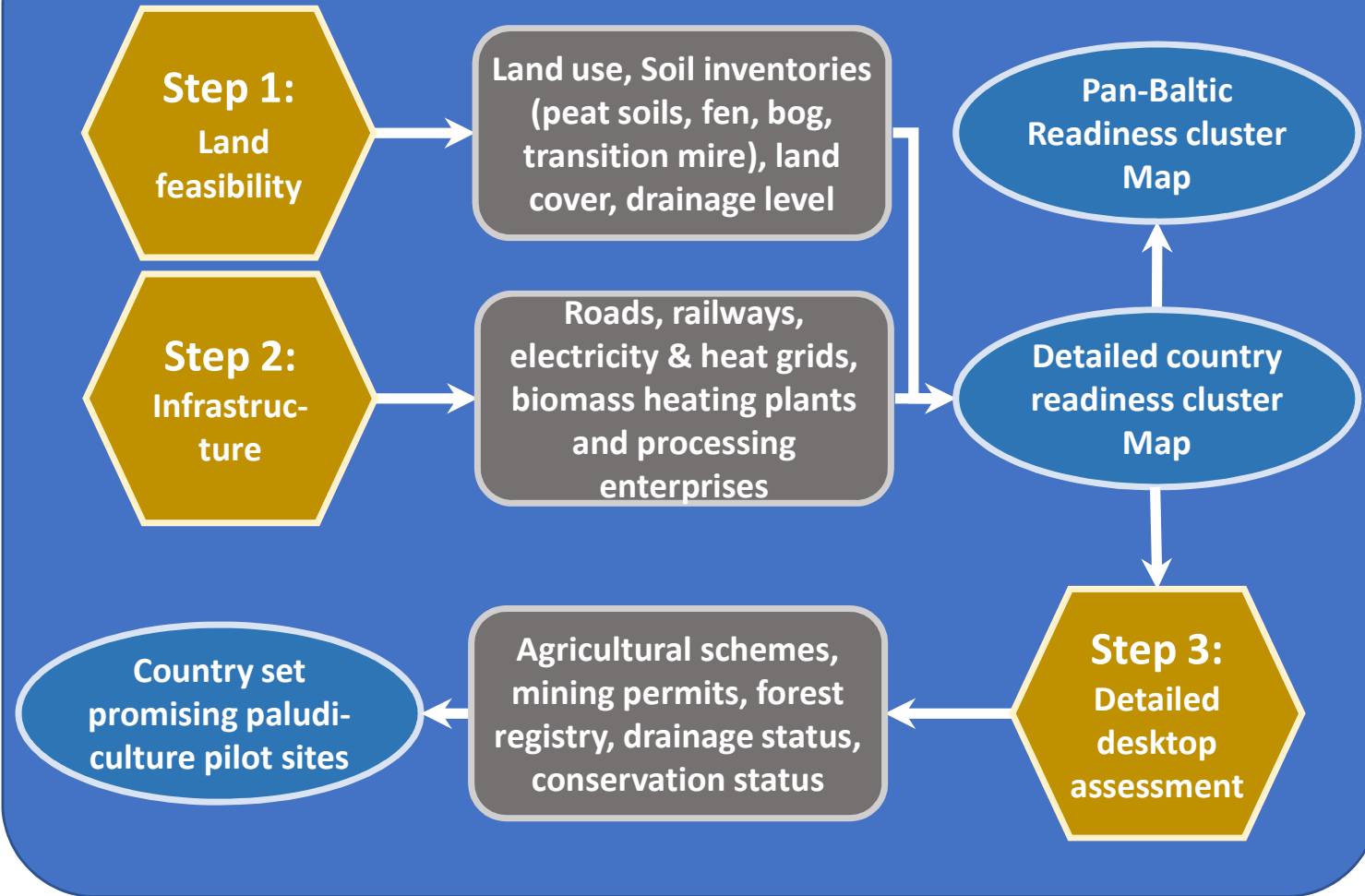
Major restrictions: Nature conservation, e.g. core zones **without management** or managed zones with **prohibition of economic activities**

### Suitability class - total Baltic area

-  Suitable - 450 668 ha
-  Potentially suitable - 97 662 ha
-  Conditionally suitable - 669 548 ha
-  Not suitable - 527 550 ha



## GIS spatial data modelling





## On-site Verification

**Step 4:**  
On site  
assessment  
and  
verification

Land cataster data,  
wetland inventory data,  
orthophotos, Field visits,  
stakeholder & expert  
assessment.

Selected  
paludiculture pilot  
for preplanning

- ⇒ Preplanning documents were compiled
- ⇒ Implementation planning is ongoing



## Next steps

### Research:

- Further **update** of Baltic peatland and GHG inventories, (e.g. [OrgBalt – LIFE project](#)).
- Assessment of **environmental benefits** of paludicultures.



### Framework:

- **Priorisation for upscaling** of peatland rewetting and paludiculture to emission hotspots
- Set up **incentive programmes** for peatland rewetting and paludiculture with remuneration options for provided ecosystemservices.
- Develop and Implement paludiculture **training modules** for practitioners.

### Implementation upscaling:

- **On-site activities** for peatland rewetting and implementation of paludiculture.
  - **Off-site activities** for development of paludiculture products and product valorisation chains.
- ⇒ Joint ventures between reseach, product engineering, and entrepreneurship

- ⇒ Implementation of paludiculture pilots is initiated – still a way to go for upscaling in the Baltics.
- ⇒ Stakeholder interest is present – further awareness raising and knowledge exchange needed.
- ⇒ Training programmes for practitioners (farmers/foresters) for paludicultures are wanted.
- ⇒ Further clarification and tackling of obstacles for rewetting and paludiculture implementation on the 767 170 ha (Yellow/Orange class) is needed.



Thanks for your attention!