

# Climate resilient water management: The peatland challenge – Living labs for sustainability transitions

Loes Witteveen  
Peter van der Maas

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# Content

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- Two professorships collaborating in joint research (transdisciplinary themes, methods & concepts)
- Experiences with Peatland transitions
  - Better Wetter - paludiculture
  - Serious game: [www.Peatland.eu](http://www.Peatland.eu)
- Q&A



# Climate resilient water management: The peatland challenge – Living labs for sustainability transitions

Dr. Loes Witteveen

Lectoraat CoPSEL

**Communicatie, Participatie & Sociaal- Ecologisch Leren**

Dr. Peter van der Maas

Lectoraat **Duurzame watersystemen**



# Joint projects

**Interreg**  
North Sea Region  
**CANAPE**

European Regional Development Fund



EUROPEAN UNION



The Competitive University for a Sustainable Society



**Interreg**   
North-West Europe  
**CCONNECTS**

European Regional Development Fund



# Climate change



Foto: Jannes Wiersema

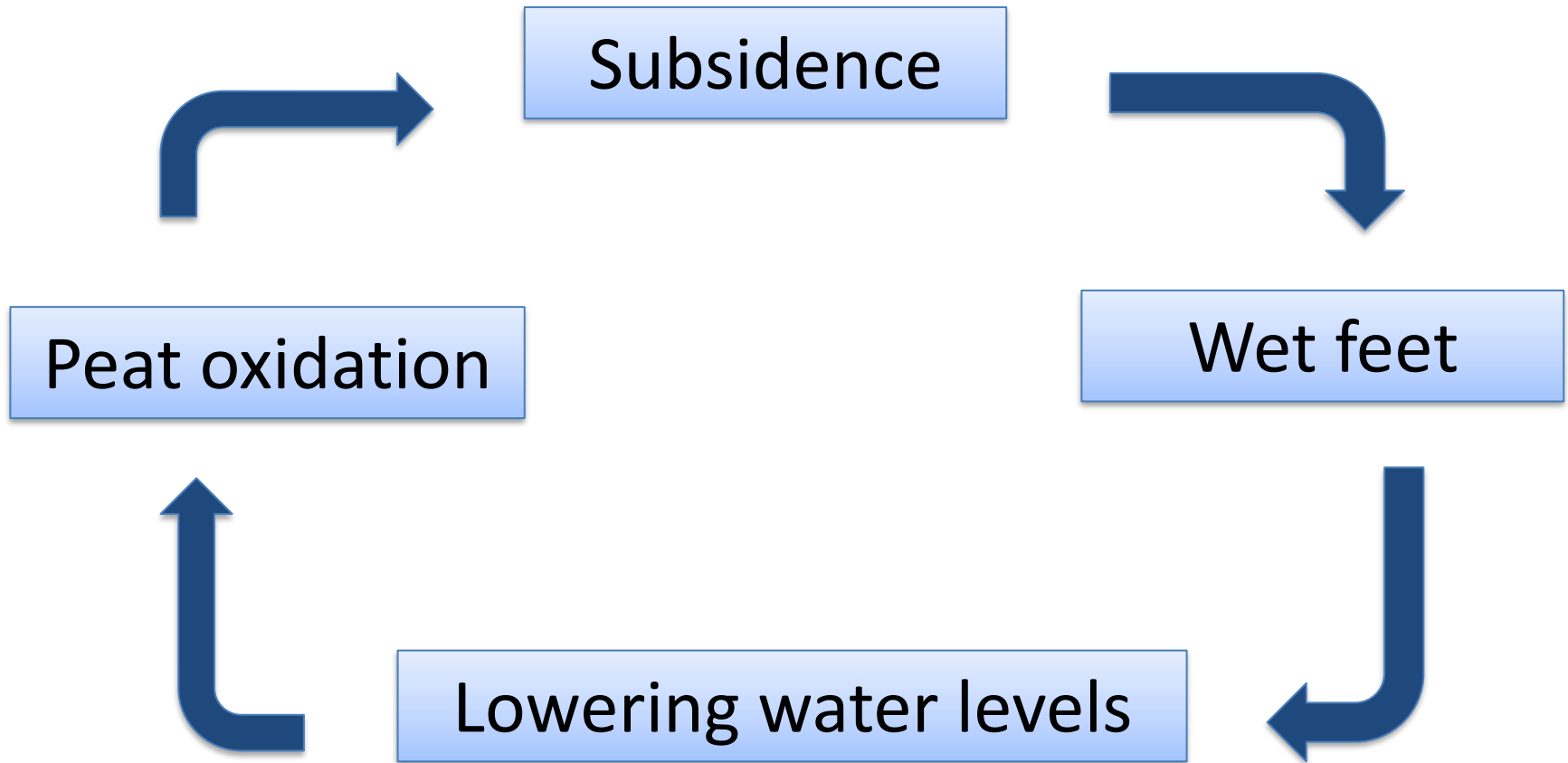




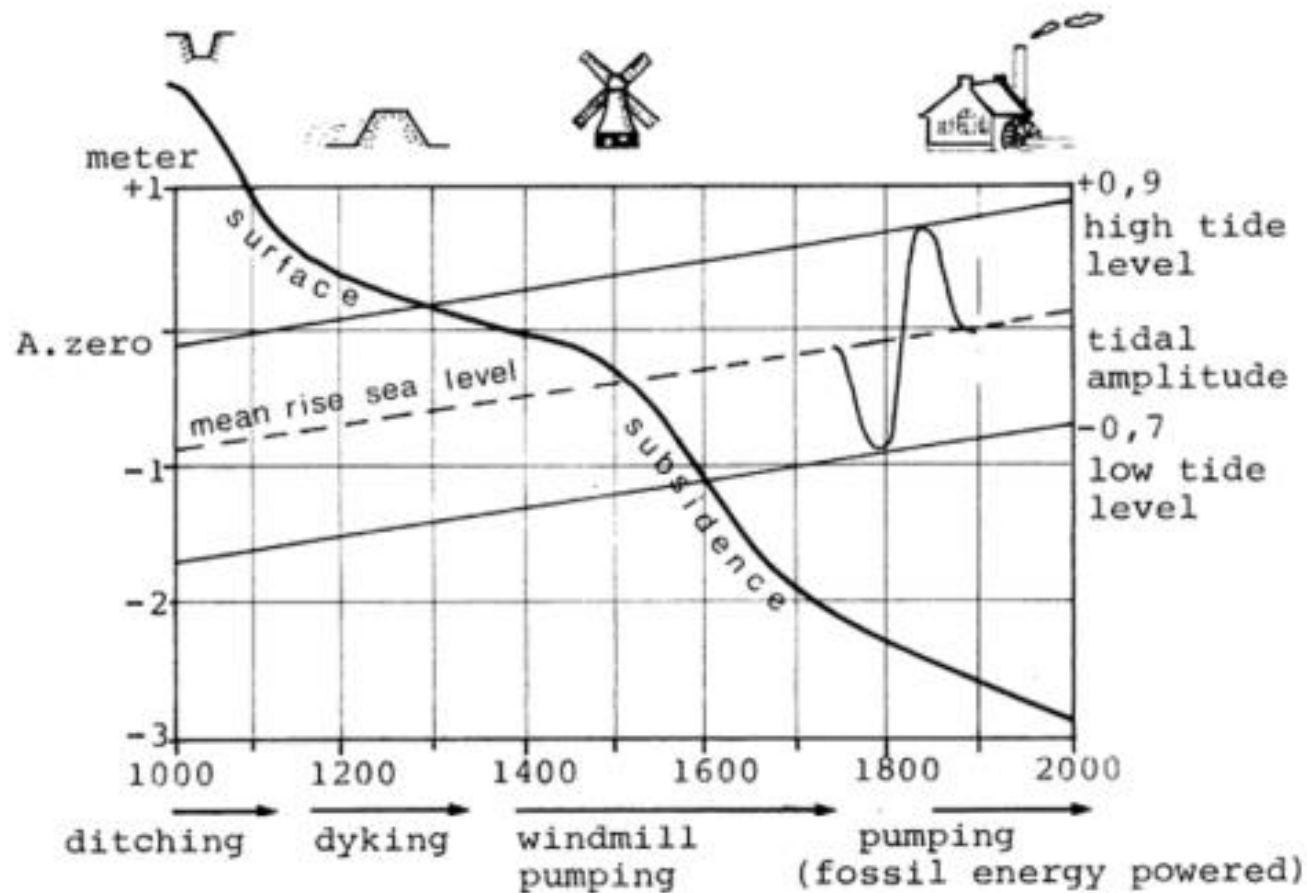
# Climate change - Peatland



# The problem: drainage of peatlands



# Drainage for productive land use



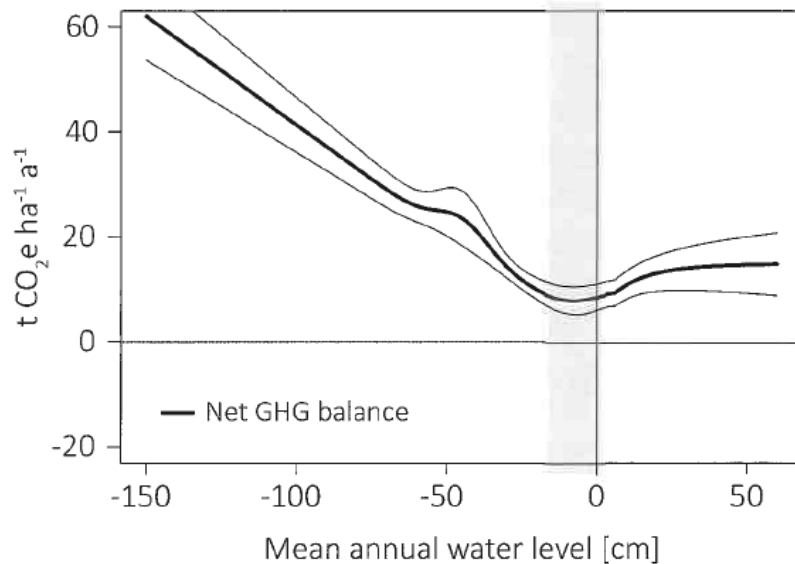
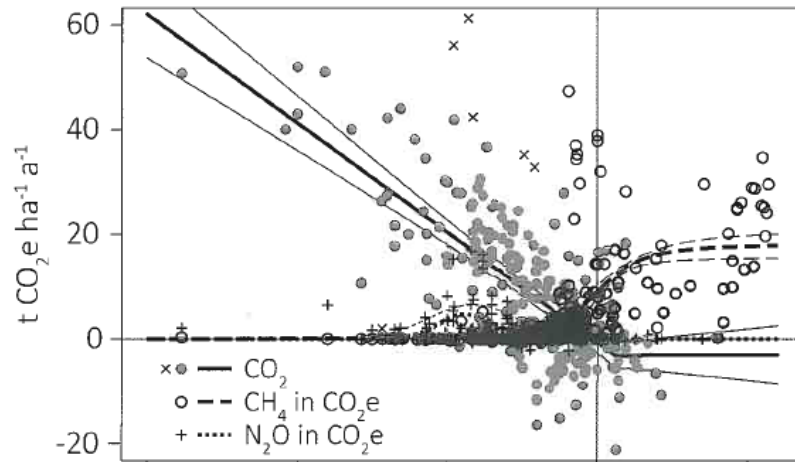
Source: Deltares



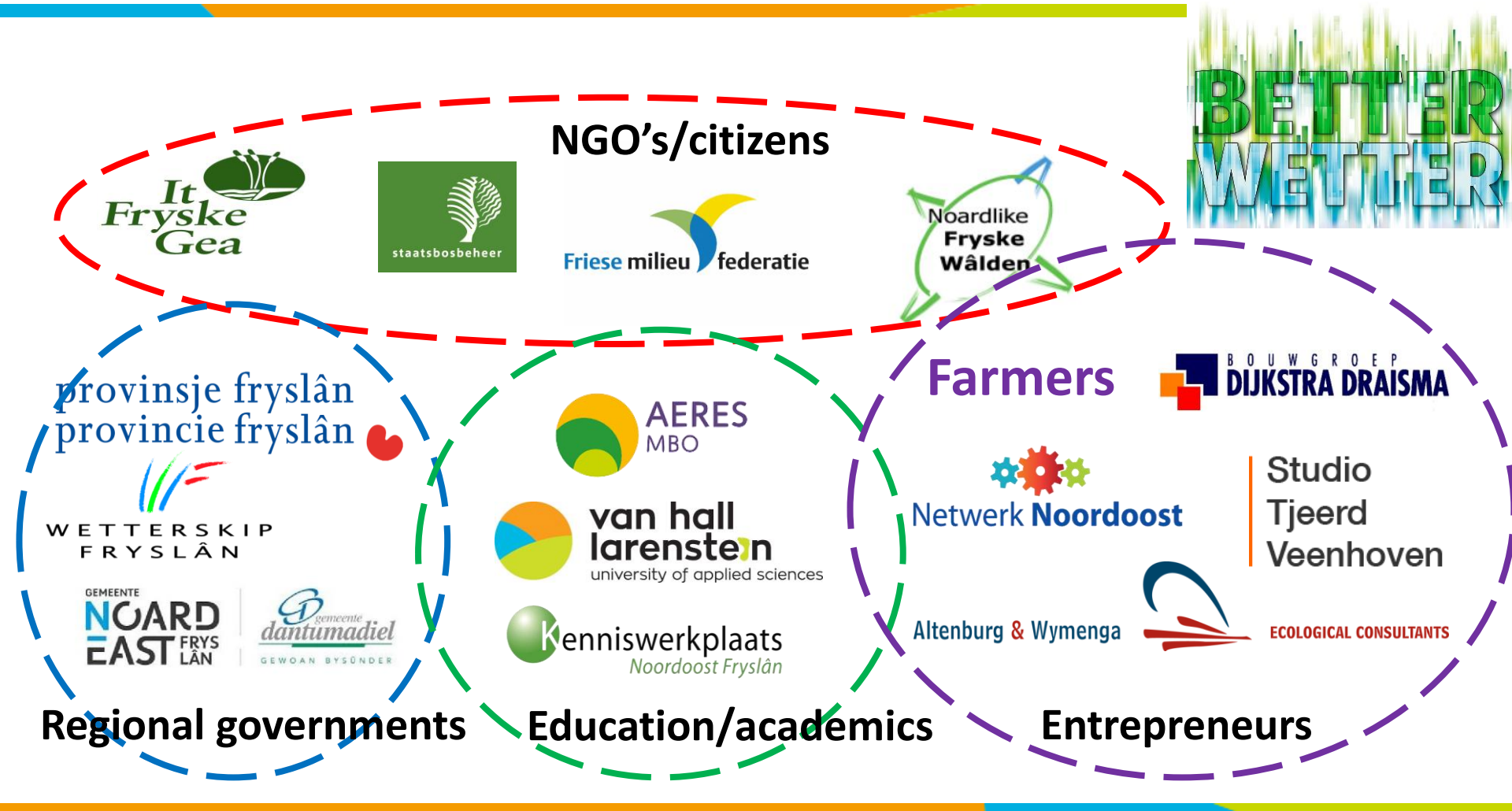


# Drainage trade offs

Wichtmann et al. 2016



# Better Wetter: cooperation for sustainability





# Wetland agriculture: paludiculture



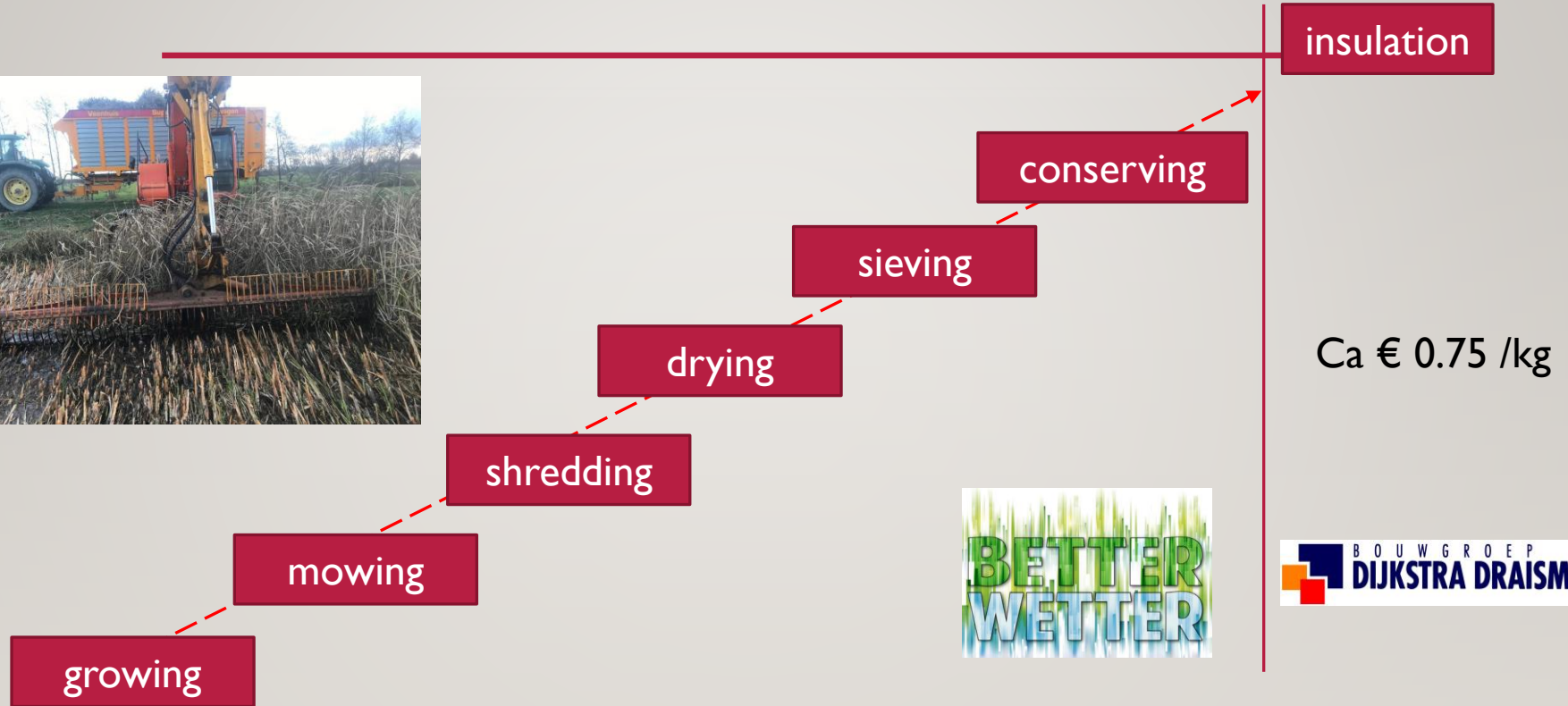


# Cattail production (typha)





# CATTAIL → INSULATION MATERIAL







# Climate change - Peatland



Communicating complexity

General audience: weak linkage carbon emission and peatland

Low visibility (recognition) of soils and peatlands

Experimental space needed for the exploration of knowledge and expertise



# PEATLAND

mapping sustainable futures

CARPE DIEM

NEW ENERGY

SPHAGNUM & TYPHA

THE BUFFALO



The homepage shows the map of Peatland and is interactive for the town buildings and the farms.

A menu indicates (the order of) town buildings, farms and languages.

### **Town buildings**

- Townhall
- Bank
- University
- Museum
- Shop

### **Farms**

- Carpe Diem
- New Energy
- Sphagnum & Typha
- Buffalo

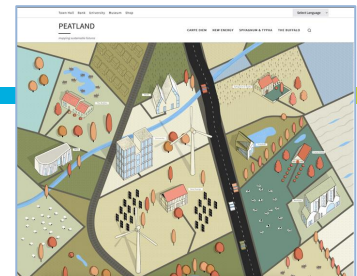
### **Languages**

- Dutch,
- English
- French
- German



# Social serious game design & development

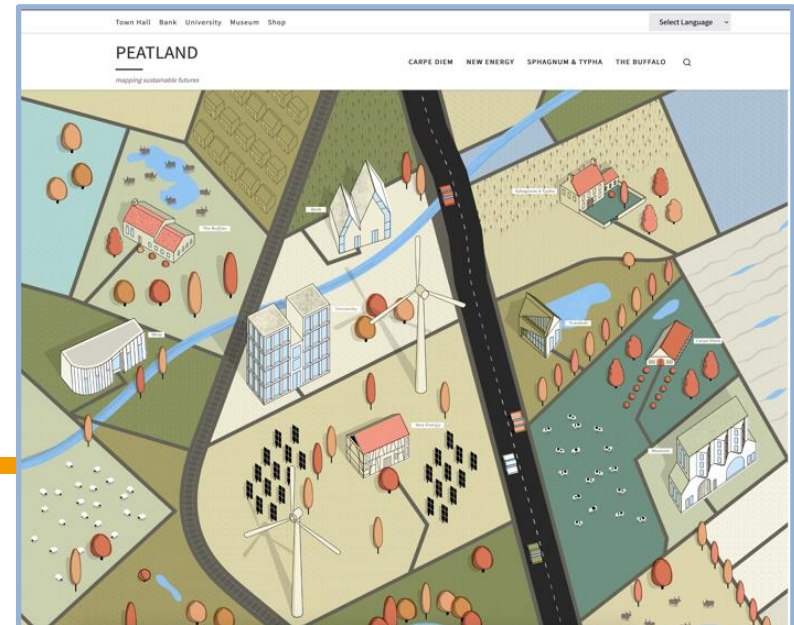
design principles + user stories + UX designers  
+ content creators + UI designers + ICT developers +  
photographers + film makers + ...  
= a sound website ☺



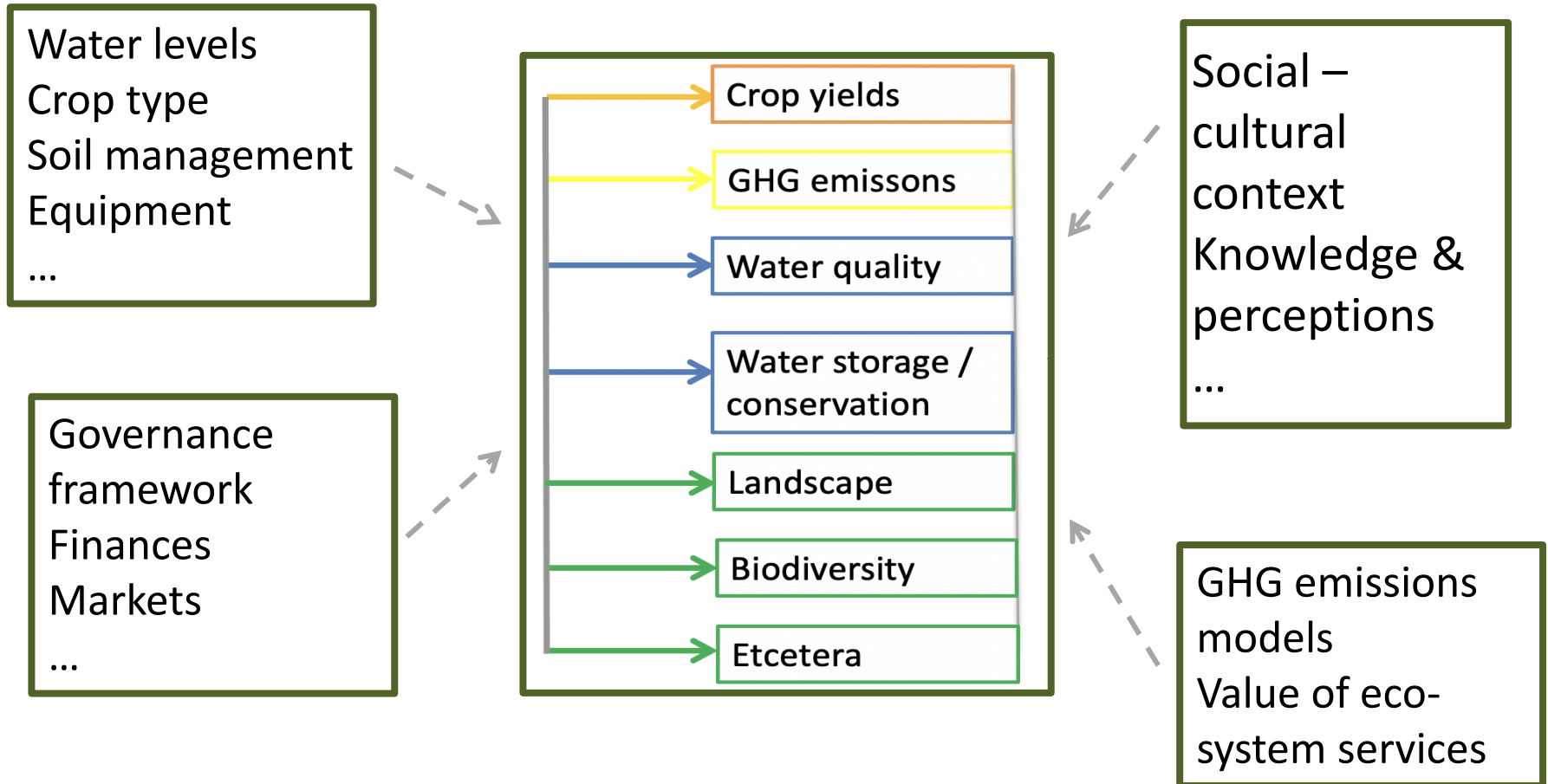


# Experiences & Conclusions

- Critical discussions between stakeholders have to be facilitated.
- Experimental spaces and places needed: design, trial and error.
- Direct stakeholders require access to knowledge and expertise.



# Experiences & Conclusions





# Experiences & Conclusions

- Solutions for complex problems: natural and social sciences strongly interconnected.
- Transdisciplinary action research in living labs requires joint will.
- Sustainable water management and land use requires new business models.
- New professionalism is emerging.
- Research funding has to adapt e.g. Typha board construction innovation vs organising living labs.
- Monetisation of output requires revalorisation
  - Food production quality – quantity
  - Food production – Food resilience
  - Food production vs Ecosystem values



Recognisable?



# Q&A

[Peter.vandermas@hvhl.nl](mailto:Peter.vandermas@hvhl.nl)

[Loes.witteveen@hvhl.nl](mailto:Loes.witteveen@hvhl.nl)