

OUR ACTIVITIES

PILOT SITES

- We implement innovative business models on pilot sites in the Netherlands, France, Belgium, UK and Ireland to test and learn from.

FARMER-TO-FARMER LEARNING PROGRAM

- The F2F program gathers peatland farmers on a local and international scale to exchange on their practices and reflect on global issues such as climate change and carbon sequestration.

COLLABORATIVE LIVING LAB PLATFORM

- The living lab provides answers on legal and in-field related issues, a discussion forum, field updates of the pilot sites and informs on relevant publications and events.

ONLINE TOOLBOX

- We develop a toolbox of state of the art land use practices, business models and credit accounting to share knowledge and experiences.

OUR APPROACH

New Bio-Based Business models

The aim of “Carbon Connects” is to enhance carbon sequestration of mismanaged peatlands in North-West Europe by promoting new sustainable business models and facilitating the transformation in land use towards wet agriculture.

In this way we aim to reduce the CO₂ emissions in agricultural peatlands where traditional land use practices have unnecessary high emissions.

We promote alternative practices, sustainable business models and credit schemes for wet agriculture involving:

- Raising water levels
- Introducing new crops (e.g. cattail, reed, peat moss)
- Sequestering carbon in soil and harvested biomass (e.g. to be used as building material)



CONTACT

More information

Website: www.nweurope.eu/cconnects

Twitter: @CarbonConnects

Project Lead

Van Hall Larenstein University of Applied Science

Toine Smits

toine.smits@hvhl.nl

PARTNERS



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Interreg North-West Europe Carbon Connects



European Regional Development Fund



Reducing the high footprint of degraded peatlands in North-West Europe by introducing innovative business models based on sustainable land management.

Peatlands are the most space-effective carbon stores of all terrestrial ecosystems. 3% of the world's land area is covered with peat, containing more than 500 Gigatonnes of carbon. This is twice the carbon stock of the global forest biomass (covering 30% of the world's land area) and 75% of all carbon in the atmosphere! On top of that, living peatlands are important self-regulating landscapes hosting unique biodiversity and water management. However, when the land is drained, peatland areas become a problem...

Current land practices drain and strip peatlands for energy use, crop production, and animal husbandry. Drained peat oxidizes and emits enormous amounts of CO₂.

Worldwide we have 4 million km² peatland, of which about 500.000 km² is drained! We have to act now to save the world's largest terrestrial organic carbon stock. Rewetting can solve the problem! Drainage problems must be solved while maintaining the production on the land: Paludiculture. By using the land for paludiculture, no drainage is needed and

the productive function of the land can be maintained.

PALUDICULTURE

Wet agriculture and forestry. Harvesting wet crops for food, fodder, fibre and fuel combined with the provision of vital ecosystem services and the reduction of GHG emissions from drained peatlands.

EXTRA BENEFITS OF REWETTING DRAINED PEATLAND

- Reduction of peak flows and floodings
- Increase of groundwater availability
- Drinking water regulation
- Unique biodiversity: birds, plants, fungi, invertebrates and micro-organisms
- Biomass production for human consumption, fodder, sustainable bio-based materials like insulation, building materials, paper, bioplastics or bio-energy and horticulture substrates,...

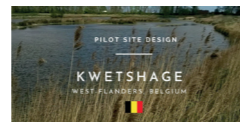
- Similar economically viable production
- Natural defence against wildfire
- Unique area for recreation
- Mitigating climate change

Bottlenecks

- Some paludicrops still lack the status of agricultural crops
- Rewetting can be expensive/difficult when neighbouring fields are still drained
- Current scales of production
- Business models are still under development

- Size: 1000 ha
- Crop Type: spontaneously grown reed, sedges, rushes, grass, willow
- Nature Reserve with 50 ha large pond

GOAL : Wetland restoration and rewetting. Increase of C-stock. Use of biomass for on-farm composting and compost use on arable land.



- Size: 90 ha
- Crop Type: spontaneously grown sedges, rushes, reed, grass and planting of reed and cattail for capturing nutrients in surface water
- Former agricultural area to be transformed into wetland, serving both nature goals and water management goals as a flooding area.

GOAL : Rewetting the entire area, the creation of a high-quality reed marsh and the implementation of a sustainable management of habitats in cooperation with local farmers, stimulating the use of biomass from the wetland in farming practices



- Size: 137 ha
- Crop Type: Ling heather soft rush
- Highly degraded and drained blanket bog because of extractions during the last 20-30 years for domestic and industrial purposes

GOAL : Improving the water quality, enhancing the habitat especially for Pearl Mussel by having a good vegetated peatland located adjacent to a water body, supporting the landowners in quantifying and improving the Carbon Sequestration Potential



- Size: 4.5 ha
- Crop Type: Sphagnum
- Upland blanket bog with degraded vegetation community caused by overgrazing, burning and drainage

GOAL : Demonstrating cost effective Sphagnum inoculation on degraded peatland to improve condition, reduce carbon emissions and prevent further degradation and costly restoration works in future

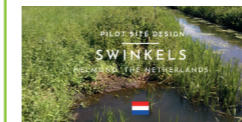
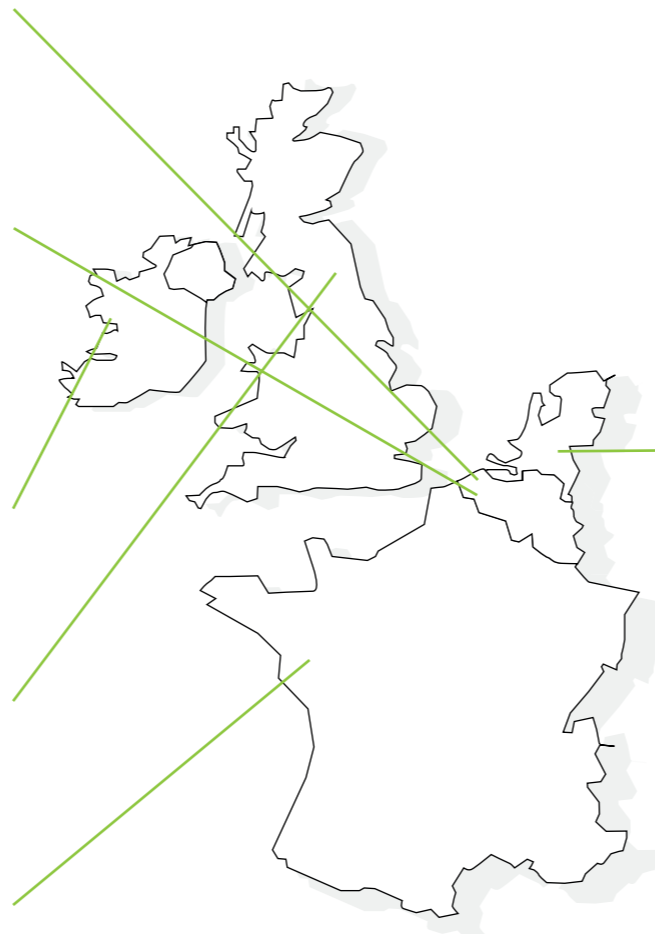


- Size: 3000 ha
- Crop Type: Grasses grow naturally, no cultivation
- Water level fluctuations: 0,7-4

GOAL : Find a compromise between ecologic, economic and social activities on the land: maintain biodiversity, improve grazing techniques and grass harvesting for fodder and biomass,...

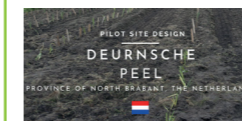


OUR PILOT SITES



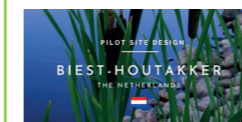
- Size: 1 ha
- Crop Type: Cattail
- Water level fluctuations: -10 and +20 cm

GOAL : Keep water table high and block the drainage ditches to reduce water loss by downward seepage for more stable ground water tables



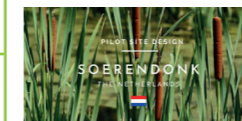
- Size: 3 ha
- Crop Type: Typha and Salix
- Water level fluctuations: -70 and +2 cm

GOAL : Rewetting while supporting biodiversity preservation in this N2000 area and engage local farmers in paludiculture



- Size: 0,4 ha
- Crop Type: Cattail
- Next to a wastewater treatment plant where the water quality of the site monitored.

GOAL : Teach local farmers and start-ups in the region how to grow and harvest cattail



- Size: 1.3 ha
- Crop Type: Cattail
- Agricultural area used for grazing and local water management by serving as a flooding area

GOAL : Learning how to grow and harvest cattail to start the production for start-ups in the region



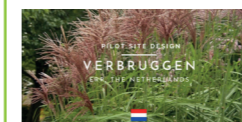
- Size: 0,8 ha
- Crop Type: Cattail
- Artificial wetland between nature and agriculture area

GOAL : Experimental site for student research and start-ups to learn how to grow and harvest wet crops



- Size: 5 ha
- Crop Type: Cattail, Alder and Willow
- New wetland plot to be created in an ecological connection zone

GOAL : Experimental site for paludiculture by allowing nature inclusive agriculture engaging local farmers



- Size: 15 ha
- Crop Type: Miscanthus
- Innovative business model to grow Miscanthus to be used as substrate to grow biological mushrooms

GOAL : Develop and test a business model producing the substrate for biological crops