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Radboud University



ZOO
ANTWERPEN



Antwerp Zoo
Foundation



Bosgroep Zuid Nederland



pidpa
water in beweging



VLAAMSE
LAND
MAATSCHAPPIJ



University
of Antwerp

Who is ADMIRE?



10 project partners



**Cross-border region
Flanders-Netherlands**



Diverse Expertise



Science on board...

Participation in INTERREG provides an unique opportunity

It allows to explore and exchange thoughts and test theoretical frameworks

- Theory versus practice leads to new insights and research questions
- Policy-relevant research can complement more fundamental research
- Also makes you more humble (reality is often more complex than scientific theory)

Peatland Restoration

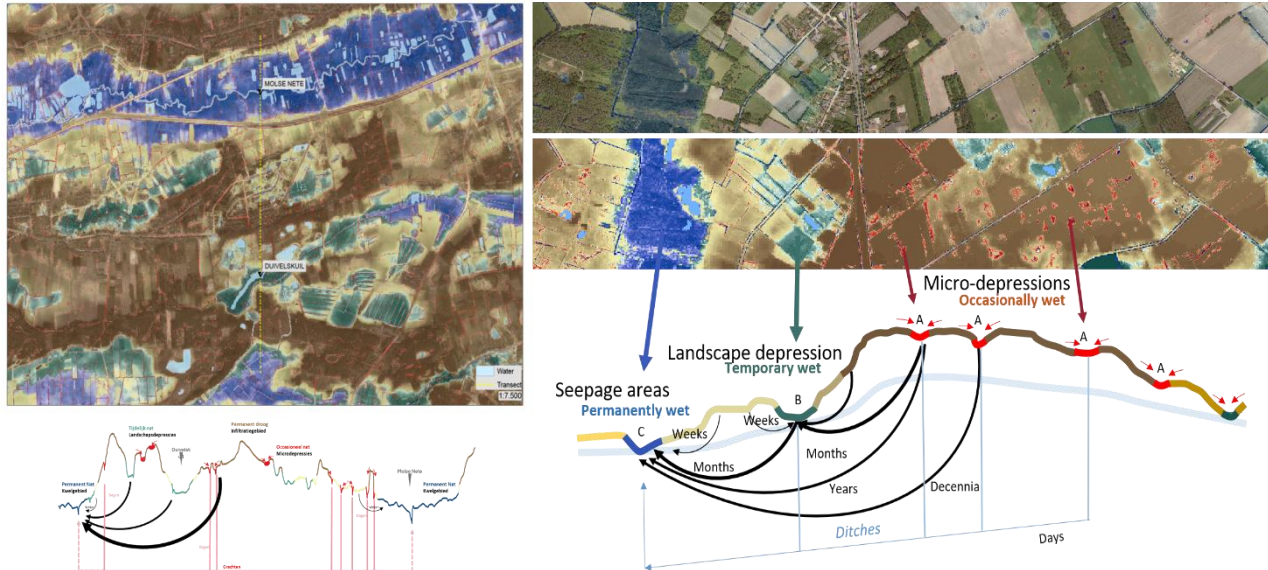
*“Our main goal is the restoration of 6 fen peatland landscapes,
with in total 250 hectares.*

The start of a long-term commitment to build resilience.”



What we brought in...

- A Landscape Ecological System Analysis (LESA)
- GHG flux measurements
- Water system maps

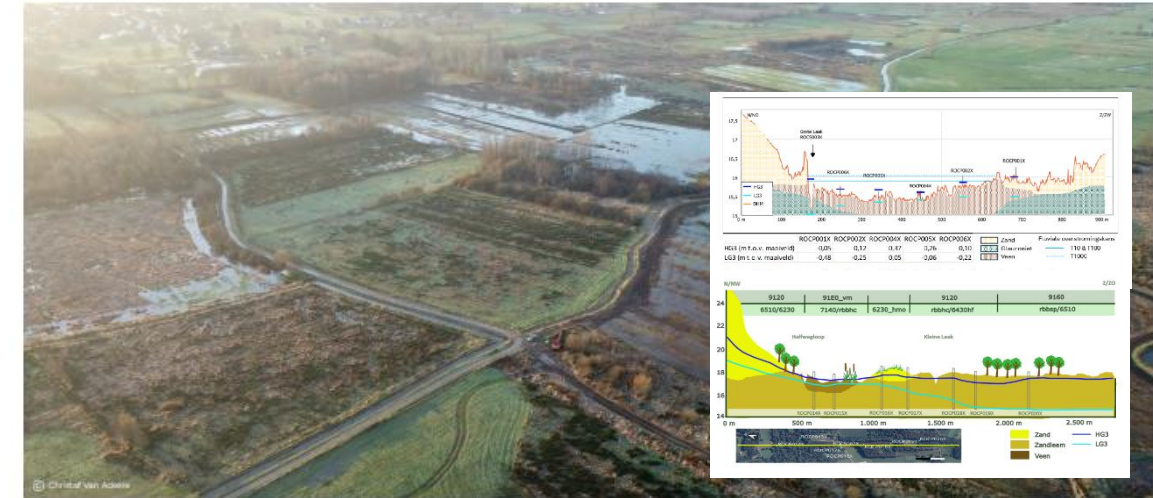


ADMIRE: A LANDSCAPE SCALE APPROACH

A landscape scale approach is necessary for long-term conservation and restoration of these ecosystems. This is quite a challenge because the landscape is often highly fragmented and intensively used. That is why ADMIRE also wants to set up sustainable collaborations with stakeholders, like farmers, around the sites.

For example, in the Kleine Nete area the Flemish Land Agency is exploring sustainable agriculture and environmental conservation. As part of the

ADMIRE project, around 120 farmers are engaged in discussions about the impacts of wetland conservation and alternative farming methods on wetter lands. The project aims to contribute to viable business models for wet agriculture in the region by fostering collaborations between farmers and other relevant companies through events and co-creation workshops. The outcomes are being shared actively to influence policy recommendations and foster broader collaboration.



Monitor GHG emissions as a base for Carbon Credit System Flanders-Netherlands

Within ADMIRE, Radboud University measures greenhouse gases (GHG) at two pilot sites comparing a hydrologically restored peatland with a still degraded peatland (despite restoration efforts) at both locations.

Also, ADMIRE is exploring the creation of a region-specific carbon credit system based on the Voluntary Carbon Standard (VCS), linking various environmental improvement measures.

To predict the impact of hydrological measures on greenhouse gas emissions, Greenhouse gas Emission Site Types (GEST; Couwenberg et al., 2011/2008) are incorporated. The GEST approach uses water level and vegetation to estimate GHG emissions for peatlands current and future land use scenarios. GHG measurements by Radboud University, in combination with groundwater level measurements and vegetation mapping, are used to improve this GEST method for the specific case of Dutch and Flemish river valley peatlands.



Biodiversity monitoring

Key invertebrate groups

Spiders, ground beetles, hoverflies and grasshoppers



49

Indicator species identified

Species occurrence linked to groundwater table





BIODIVERSITY

Biodiversity Monitoring as Indicator of Peatland Restoration

SESSION LEADER(S)

Pieter Vanormelingen - Natuurpunt Studie

Peatlands harbour a unique and often threatened biodiversity. Restoration of typical peatland species and communities is often an explicit goal of peatland restoration, and an important indicator for its success (or lack thereof). Biodiversity monitoring includes an assessment of the baseline situation, including target species, and the response of peatland communities and species to restoration. This also gives nature managers the opportunity to communicate about the value of the peatland for biodiversity and the need for and effects of restoration measures.

Room: Limousin 2

Thursday morning (11:00 – 12:30)

PRESENTATION

Pieter Vanormelingen | Natuurpunt Studie, Belgium

Using a Citizen Science Biodiversity Platform for Peatland Species Inventories

Martijn Ghijzen | KU Leuven, Belgium

Modelling the Dependence of Peatland Invertebrates on Groundwater Levels to Predict Responses to Peatland Restoration

Adaptive management

**Management
after restoration
measures**

Mowing, cutting
trees

Manually
Using specialised
machinery

**Typical fen peatland
mosses need**

- Light
- Water
- Minimal disturbance

Decision-tree

Use and
adapt management
annually





RESTORATION IN PRACTICE

Adaptive Management of Peatlands

SESSION LEADER(S)

Cyr Mestdagh - Natuurpunt

Conserving or restoring peatland habitats requires specialised nature management actions. Due to human impacts on the ecosystem functioning, nature management can kickstart vegetation development if carried out correctly. In this session we will give our latest insights in these best practices of managing peatlands.

Mainly different mowing techniques will be presented, both on near natural mires as well as heavily degraded fens. We will discuss the effects of using different machines versus manual techniques, importance of hummock formation and do's and don'ts for vegetation development.

Room: Dexter 21-24

Thursday morning (11:00 – 12:30)

PRESENTATION

Toon Deswert | KMDA, Belgium

Adaptive Management in Fens: Practice-Based Insights From De Zegge

Seppe Strybos | Natuurpunt Studie, Belgium

Impact of Mowing Using Heavy Machinery on Vegetation Composition, Microtopography, and Soil Properties in Lowland Fens

Looking beyond our nature reserves



Co-creation workshops



Talks with private land owners and farmers





COMMUNICATION AND ENGAGEMENT

Wednesday afternoon (15:30 – 16:30)

Session

Beyond the Bog: Citizen Science, Culture, and Community Engagement in Peatland Restoration

Room: Limousin 2

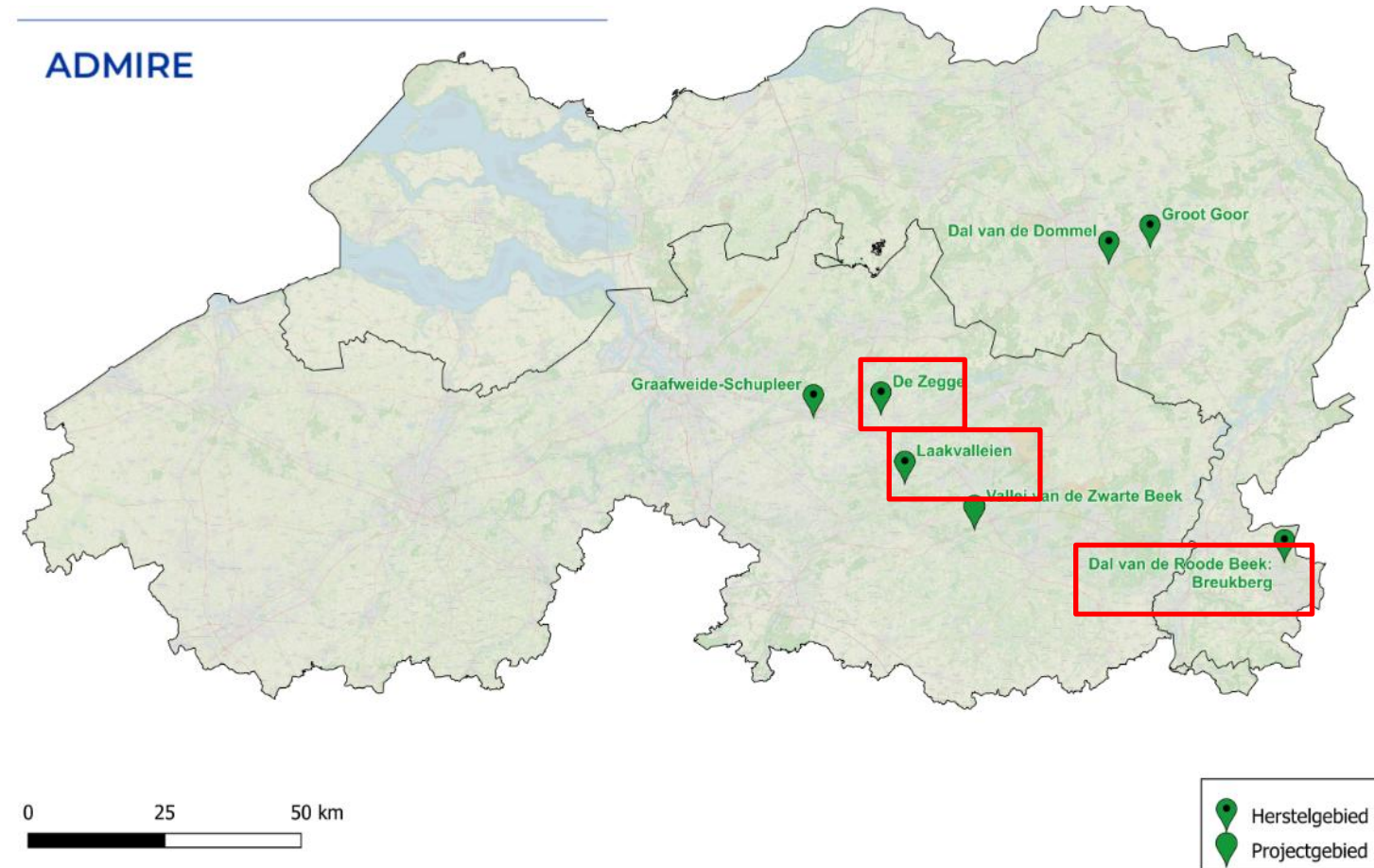
Presentation Carousel

Nathalie Kindt | VLM, Belgium

Rebalancing Agriculture and Nature: A Socio-Ecological Approach in De Zegge, Valley of the Kleine Nete

Challenging sites that require a little more effort to understand

- The sites operate in complex and contested contexts, shaped by public support, legal challenges, trust, and diverse stakeholder interests
- The sites have complex ecological and hydrological functioning, shaped by layers of historical interventions and modifications over time.



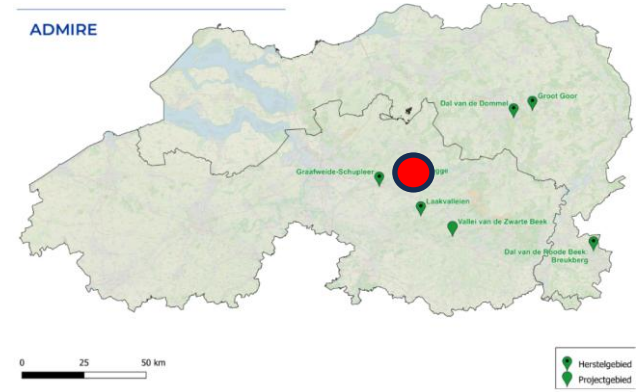
Yet there are opportunities to unlock their opportunities for biodiversity, climate mitigation and adaptation

“De Zegge”

Historically a wetland landscape — De Zegge developed as a low-lying, wet landscape strongly shaped by water, with marshes, wet grasslands and peat-rich soils.

1955-1962: Large scale drainage and reclamation for agriculture (a small part was saved)

Large scale restoration outside the Zegge to stop subsidence and intensive care actions within the Zegge

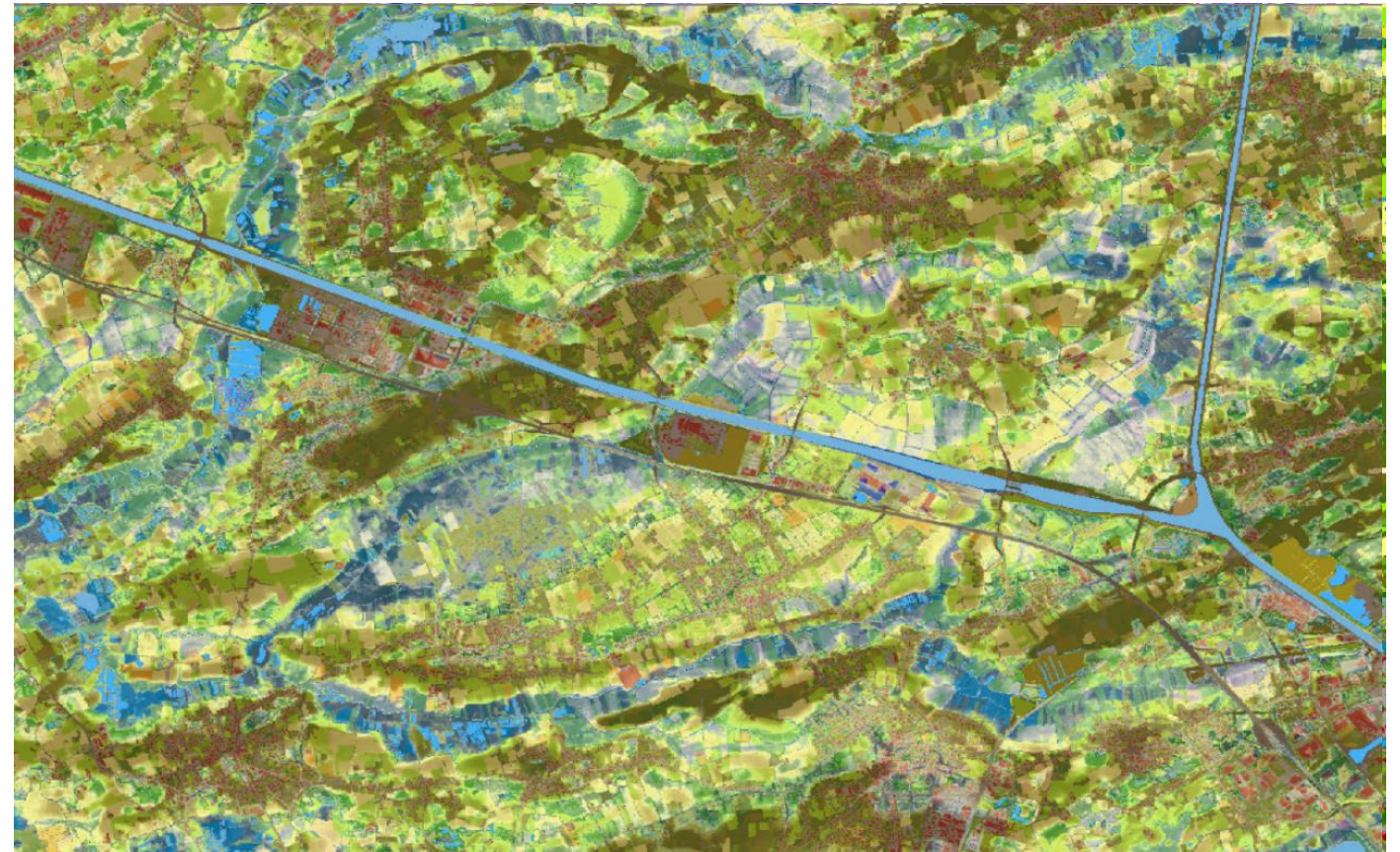
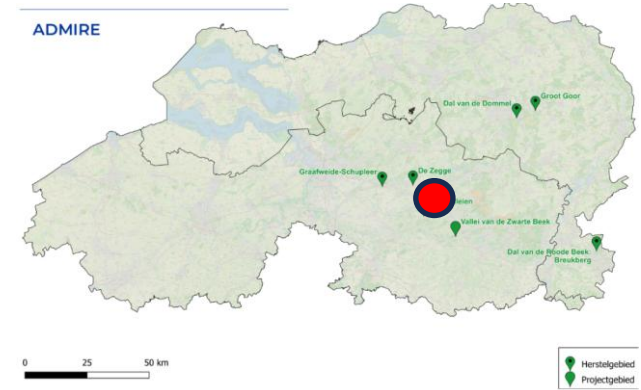


“Laakvalleien”

Natural valley landscape — the Laakvalleien developed as a wet, stream-dominated landscape, with meadows, marshes and small-scale agricultural land use.

Drainage and reclamation

Industrial and infrastructural pressure



“Breukberg”

Breukberg developed as a rare wet heathland and slope-mire system, fed by groundwater emerging on the slope.

Hydrological disruption — drainage and infrastructure contributed to desiccation and deterioration of the mire ecosystem.

Through ADMIRE, an artificial groundwater seepage barrier was placed





RESTORATION IN PRACTICE

Innovations by Private Companies in Peatland Restoration and Management

SESSION LEADER(S)

Wiebe Borren - Natuurmonumenten

Wednesday morning (11:00 – 12:30)

PRESENTATION

Oskar D de Kok | BodemBouw BV, Netherlands

BodemBouw and the Realisation of a Seepage Barrier at the Breukberg

Room: Dexter 21-24

Ensuring long-term cooperation



Peatland platform

Veenplatform

Vlaanderen-Nederland

A platform for nature managers, scientists, decision-makers, market

Workshops, field visits
Thematic



Our experience in a handbook



Veenboek

Practical guidelines and tools

Restoration and management of fen peatlands

Mainly for nature managers



Pre-register Veenboek

Launch in 2027
Dutch edition

This book supports
land managers
carry out effective
restoration of
valley fens



Sign up at our booth

interreg
ADMIRE

Thank you!



Interreg
Vlaanderen-Nederland



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de Europese Unie

ADMIRE



RESTORATION IN PRACTICE

On the Origin of Mires: Research Into the Peat Base and Peat Profiles and What This Insight Means for Mire Restoration Strategies

SESSION LEADER(S)

Gert-Jan van Duinen - Stichting Bargerveen

Wednesday afternoon (13:30 – 15:00)

PRESENTATION

Dion P.H.F. van Staveren | Bosgroep Zuid Nederland, Netherlands

Peat Reborn: A Wet Perspective for the Dommel Valley

Room: Dexter 21-24



PEATLANDS OF THE FUTURE

Wetscapes 2.0

Landscape Level Effects and Feedbacks of Peatland Rewetting

SESSION LEADER(S)

Anke Günther - University of Rostock

Jan Staes - University of Antwerp

Jürgen Kreyling - University of Greifswald, Greifswald Mire Centre

Lander Neuskens | ECOSPHERE Research Group, Department of
Biology, University of Antwerp, Belgium

A Spatial Framework for Hydrological Transition Zones Between Wetlands and Intensive Land Uses

Room: Dexter 25-28

Thursday morning (11:00 – 12:30)

PRESENTATION



PEATLANDS OF THE FUTURE

From Sites to Systems: Putting Landscape Thinking Into Practice for Peatland Restoration

SESSION LEADER(S)

Agata Klimkowska - Wetlands International

Rolf Hogan - Landscape Finance Lab

Jan Staes - University of Antwerp

Jan Staes | University of Antwerp, Belgium

Powerful Tools for Landscape Analysis: The Water System Maps for Validation of Potential Wetlands With Soil Data and Historical Maps

Wednesday morning (11:00 – 12:30)

PRESENTATION

Room: Limousin 2



PEATLANDS OF THE FUTURE

Session

Digital Peatlands:

Spatial Modelling, AI, and Remote Sensing for Landscape Analysis

Room: Dexter 25-28

Presentation Carousel

Wednesday afternoon (15:30 – 16:30)

Jeroen Krols | University of Antwerp, Belgium

A Multi-Criteria Analysis for Wetland Potential in Flanders

Leo J Norda | University of Antwerp, Belgium

Landscape Ecohydrological System Analysis, What, Why and How?

Get in touch



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Project with European support

EU support: € 2,90 million (50%)
Total budget: € 5,80 million
Duration: 01.04.2023 - 31.03.2027
Interreg VI Theme: A greener Europe
www.grensregio.eu/projecten/admire



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