

Today's program

- 12:00** Lunch
- 12:45** EIT Water introduction and award ceremony
- 13:15** Setting the scene
- 13:30** Connecting visions
- 14:15** From strategic vision to innovation
- 14:50** Workshop – shaping the future
- 16:35** Concluding reflections
- 16:45** Network reception



Arnout Desmet

Judith Ooms

Thomas Vijverberg – Tina Mertens – Dries Bonte

Kristien Veys – Lukas Arnout – Emile Lemey – Wietse

Van Der Werf

Marijn Rabaut

Piet Opstaele



Co-funded by the
European Union



EIT WATER Introduction

#EITWater

WHY NOW? EUROPE'S BIG WATER CHALLENGE

Europe's water, marine and maritime (WMM) systems face urgent challenges - from ecosystem degradation and pollution to climate risks and resource scarcity.



41%

of EU citizens are already affected by water scarcity



325K

tonnes of plastic enter the Mediterranean every year



€80B

In 2021 and 2022, water-related heatwaves and floods caused over €80 B in damages across Europe



€500B

at economic risk due to the degradation of coastal and freshwater ecosystems

WHO WE ARE



OUR COMMUNITY

EIT Water is Europe's innovation community for water, marine and maritime (WMM) sectors and ecosystems. Together we are tackling the most urgent WMM challenges from scarcity, drought and flooding to pollution and ecosystem decline.



OUR MISSION

We will accelerate Europe's transition to sustainable, resilient and inclusive water systems by enabling coordinated, place-based systemic innovation across regions and sectors.



OUR VISION

A Europe where healthy water ecosystems drive economic opportunity, environmental protection and social wellbeing.

WHERE WE FOCUS

We will address Europe's most urgent water, marine and maritime systems challenges with a specific focus on three key issues.

**MARINE AND FRESHWATER
ECOSYSTEM DEGRADATION
AND COMPROMISED WATER
QUALITY**



**LIMITED WATER
EFFICIENCY, RECYCLING
AND RESOURCE
CIRCULARITY**



**VULNERABILITY TO CLIMATE-
RELATED EXTREME EVENTS
AND EXTERNAL THREATS**



#EIT Water | Securing Europe's water future

WHAT WE DO

Through three interconnected activity streams, we amplify Europe's capacity to solve the most urgent water, marine and maritime (WMM) challenges.



ENTREPRENEURIAL SKILLS

Equipping Europe's workforce with the entrepreneurial skills needed for a sustainable blue economy



BUSINESS CREATION

Helping entrepreneurs start, grow and finance impact-driven water ventures



SCALING INNOVATION

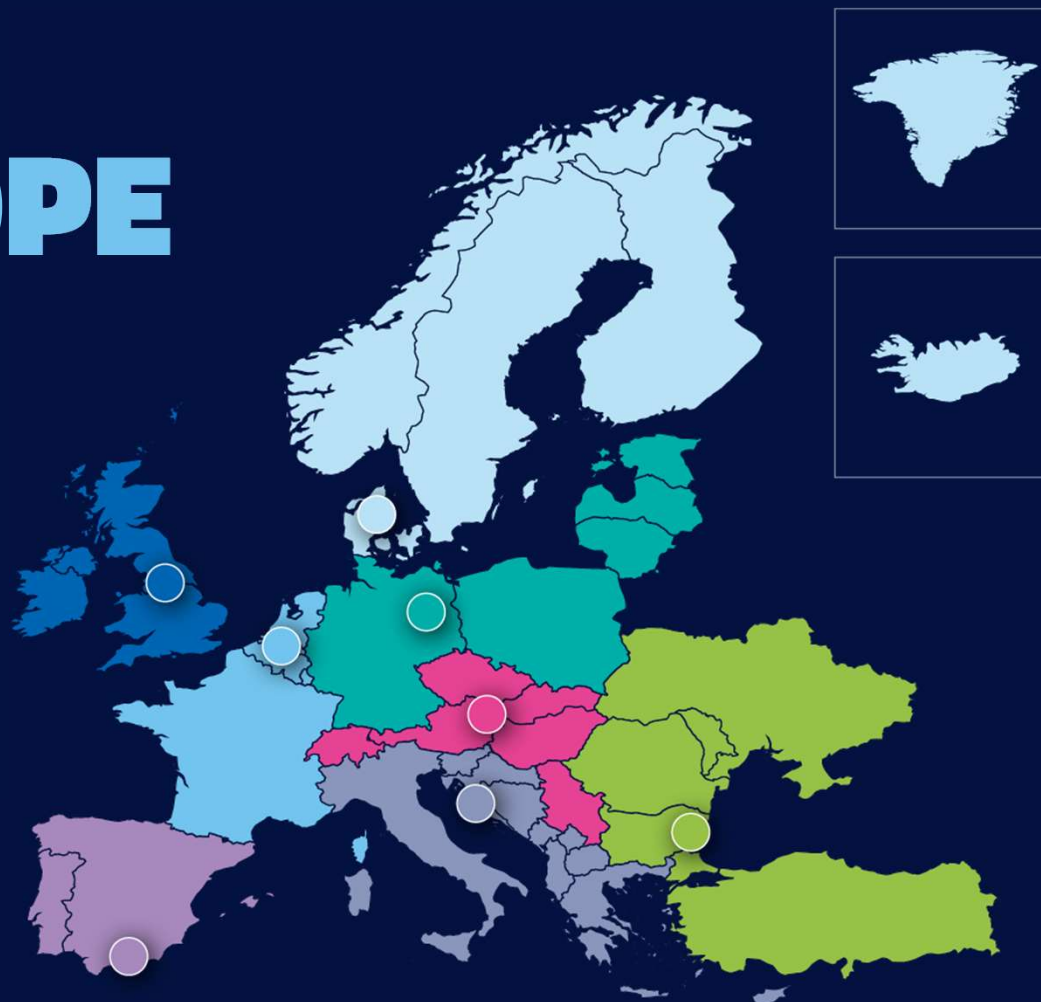
Supporting breakthrough solutions and large-scale demonstration projects

CONNECTED ACROSS EUROPE

Through a network of 8 strategically located regional hubs across Europe we build a connected and collaborative community across the WMM sectors and ecosystems.

Regional Hubs

- Black Sea, Varna
- Central & Baltic, Berlin
- Central & Danube, Vienna
- Iberian Peninsula, Málaga
- North, Aarhus
- South, Zadar
- UK & Ireland, Leeds
- West, Antwerp



OUR MEMBERSHIP MODEL

Our membership model defines how organisations join, engage in, and contribute to the EIT Water community. Members gain access to a range of opportunities, including collaboration within the community, visibility, capacity building, and funding.

MEMBERSHIP CATEGORY	VALUE TO MEMBER	CONTRIBUTION & PARTICIPATION
Strategic Members	Lead role in shaping and delivering EIT Water activities; involved in governance and decision-making	Significant financial and in-kind contributions; active participation across programmes, projects, and Community collaboration
Cooperation Members	Active contributors to specific programmes, projects, or thematic areas	Targeted participation aligned with expertise; contribution to selected activities and collaborations
Ecosystem Members	Connected stakeholders within the EIT Water Community	Participation in selected activities; limited contribution requirements

A person is diving underwater, creating a large splash and a trail of bubbles. The diver is seen from above, with their arms extended downwards.

READY TO TAKE THE PLUNGE? DIVE IN DEEPER FOR MORE DETAILS.



eitwater.eu



@eit-water



Eit_water



eit-water



Co-funded by the
European Union



#EIT Water | Securing Europe's water future

WAVEMAKER PORT INNOVATION AWARDS 2026

OSTEND CITY HALL

9 September 2026



Organisation

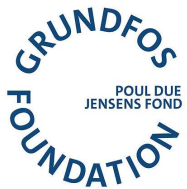


Funded by the
European Union



EIT Water is Europe's innovation community for water, marine and maritime (WMM) sectors and ecosystems.

Together we are tackling the most urgent WMM challenges from scarcity, drought and flooding to pollution and ecosystem decline.



Sponsor of the Wavemaker
pilot projects in 2026



Regional Hub host of EIT Water in the Benelux and France
Organizer of the Wavemaker Port Innovation Awards 2026 event

Meet the Jury



Frank Gielen

Chair, Blue Cluster
Education Director &
ExCo Member, InnoEnergy



Ira Lardinois

Cluster Manager Blue Energy
Blue Accelerator
(POM West-Vlaanderen)



Tim Verhoeven

Senior Policy Advisor for
Sustainable Development
& EcoPorts Coordinator, ESPO



Lien De Cuyper

Associate Professor
Antwerp Management School
& University of Amsterdam



Annelies Oeyen

Port Environment Manager
Port of Antwerp-Bruges

Meet the Ventures



BiOceanOr – Valbonne, France



Algaenius – Delft, Netherlands



NOAH WS – Gavere, Belgium



Fluidion – Alfortville, France



Shayp – Brussels, Belgium



Sea2Carbon

Sea2Carbon – London, United Kingdom



The Great Bubble Barrier – Amsterdam,
Netherlands



Councillor Judith Ooms





Elevating Nature-based Solutions

A shift in mindset: working with water, embracing natural solutions



Oosterscheldekering, 1986



Flooding, 1993, 1995



Room for the River



NL2120

- **From masters of engineering to masters of nature**



Green where possible, grey where necessary.



NL2120

So what exactly are NbS?

‘Nature-based Solutions’ (NbS)

- ➔ Focused on protecting, sustainably managing, developing and restoring (semi-) natural ecosystems.
- ➔ NbS effectively address societal challenges.



NL2120



NL2120

NL2120: Scaling up Nature-based Solutions



The NL2120 map

- A hopeful vision for the future
- Nature-based Solutions at its core
- Across five landscapes



The NL2120 programme

- National Growth Fund: > €150 million
- Duration: 2024-2033
- > 25 organisations
- > 400 experts
- Government, academia, businesses, education and nature organisations



NL2120 consortium partners



Deltares



drift
for transition



ivn natuur
educatie

NATUUR
& MILIEU



provinsje fryslân
provincie fryslân



UNIVERSITY
OF TWENTE.



EcoShape



Education



Main objective 1:

Contributing to climate-resilient spatial planning in the Netherlands by scaling up nature-based solutions



This means more projects:



Main objective 2:

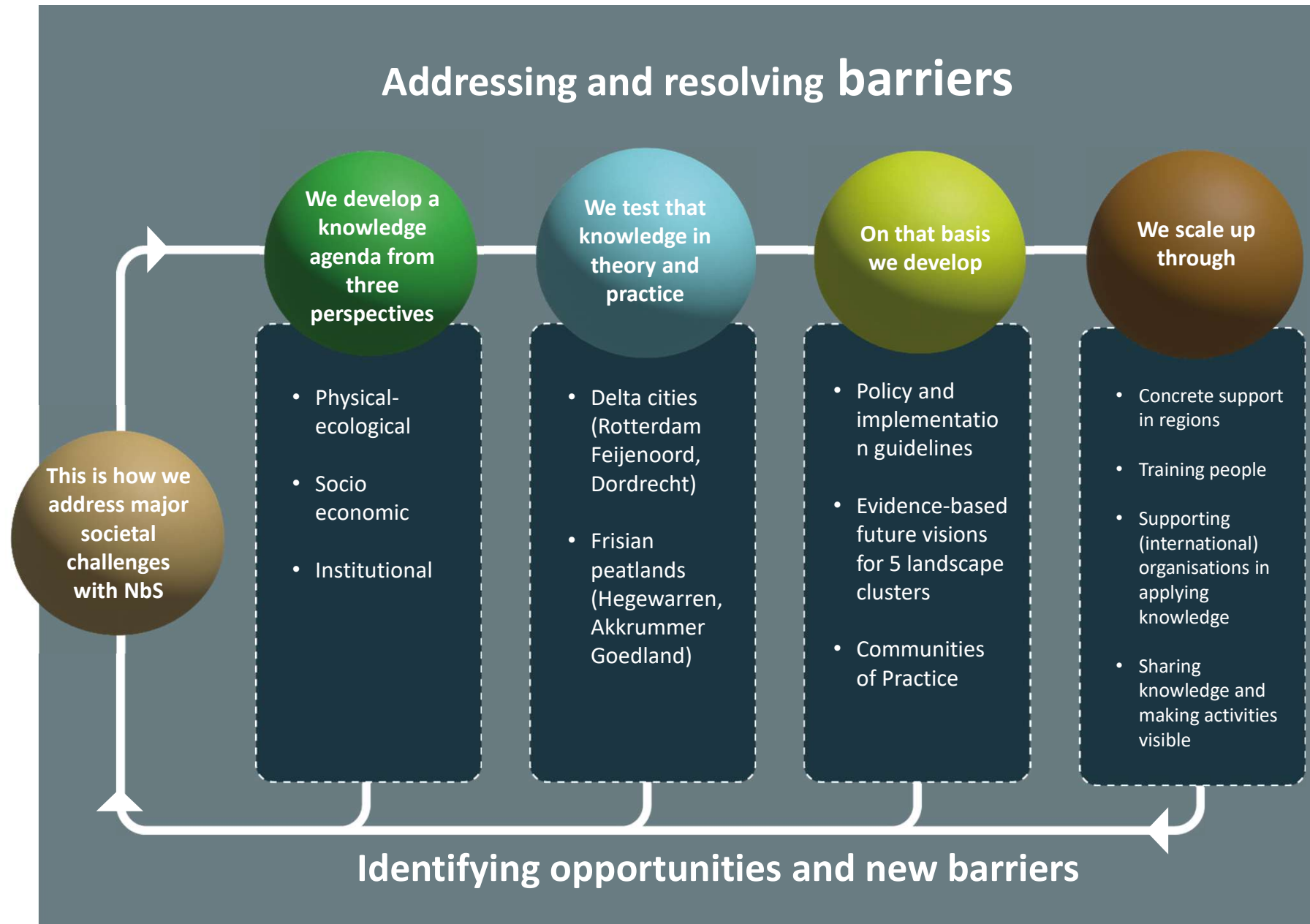
Using NbS to contribute to the earning capacity of the Netherlands through avoided climate damage, societal added value and increased exports





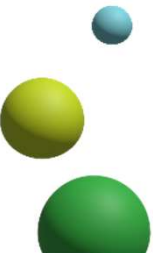
Nature is the foundation for a climate-resilient and future-proof country.

NbS contribute to broad prosperity and the earning capacity of the Netherlands.



Knowledge deepening from multiple perspectives

- **Physical-ecological:** 'How effective are NbS and how can they be applied in a changing climate?'
- **Socio-economic:** 'What are the costs and benefits of large-scale infrastructural NbS for society and broad prosperity?'
- **Institutional:** 'How can NbS be implemented within an institutional context? Who owns it and who is responsible?'
- **Pilot sites** in the peatland areas of Fryslân and the delta cities in South Holland.



Practice-based learning at pilot sites

- Implementation in 2 landscapes:
 - New revenue models for rewetting Frisian peatlands
 - Tidal parks as NbS in dense urban environments, Rotterdam/Drechtsteden
- Developing projects across all 5 landscapes through the subsidy scheme





Knowledge transfer

- **Knowledge development:** strengthened educational offering.
- **Knowledge dissemination:** raising awareness, support and understanding of NbS scaling potential.
- **Valorisation:** increasing the earning capacity of the Netherlands by giving the Dutch NbS value chain a competitive advantage.



International cooperation

- EcoShape
- Opportunity map
- Knowledge hubs:
 - West Africa Coastal Areas Management Program (WACA)
 - South East Asia
- Connecting to trade missions and networks to position the Netherlands as a knowledge leader in NbS for water management



NL2120 focuses on five landscape clusters

Coast

City

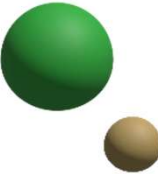
Peatlands

Sandy
soils

Rivers



Priority NbS within NL2120

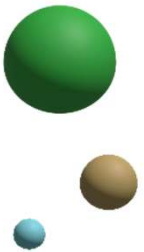


- **Peatlands:** Wet cultivation (cattail, reed, woodland), extensive livestock farming at high water tables, permanent peatland areas
- **Coast:** Dynamic sandy coastal protection, adaptive landscapes (alternating polders, double dykes), salt marshes and vegetated foreshores
- **Rivers:** Flood defences with vegetated foreshores, integrated multi-channel concept
- **Sandy soils:** Stream valley restoration, nature-inclusive farming, water retention areas with nature functions
- **Urban areas:** Green-blue networks, urban parks and waterways, tidal parks
- **International:** Mangrove restoration, sandy coastal solutions, integrated river and catchment management, green-blue urban solutions



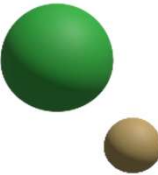
NL2120

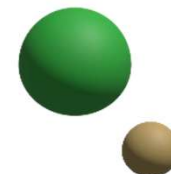
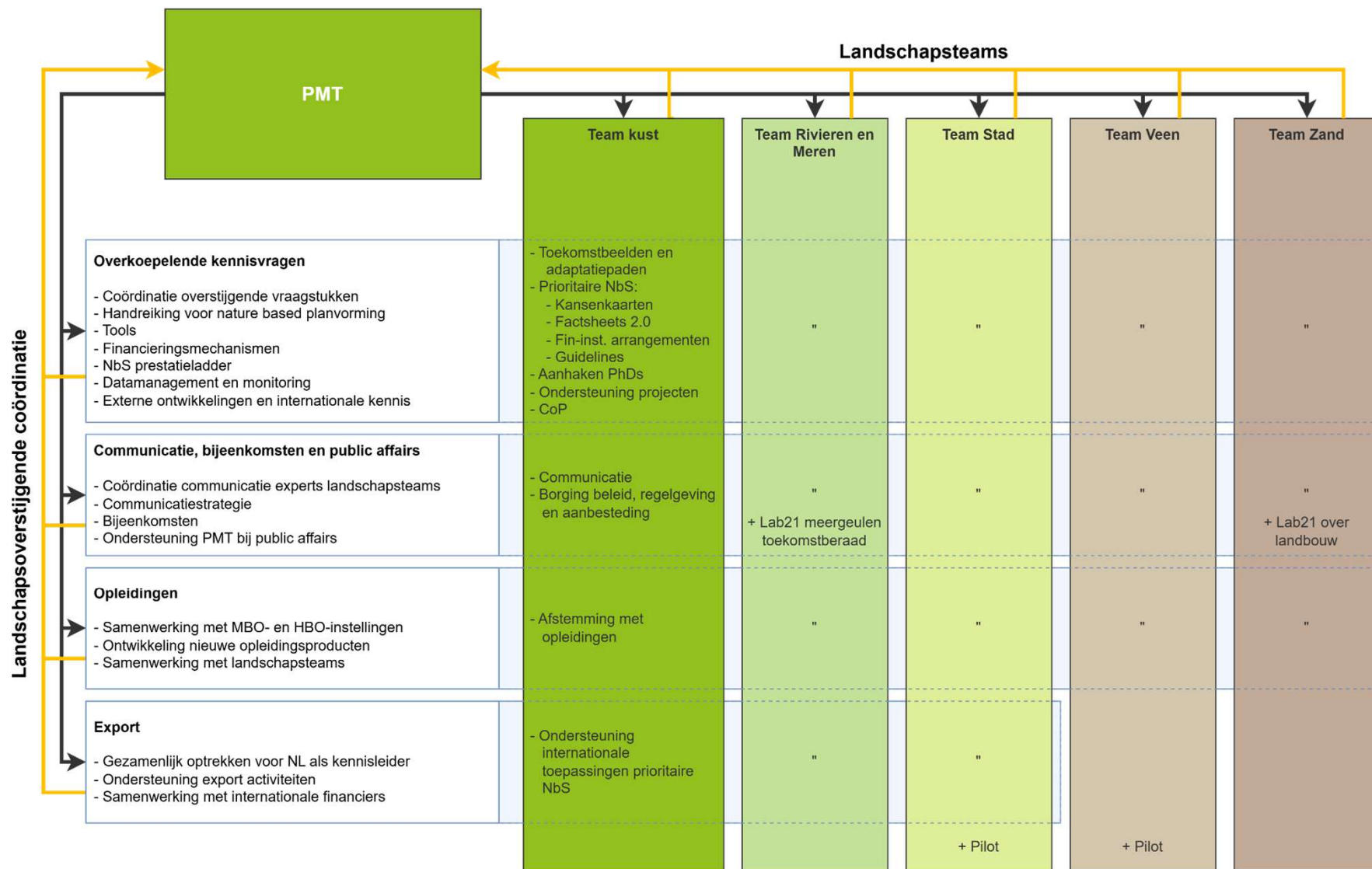
NL2120 works in four cycles



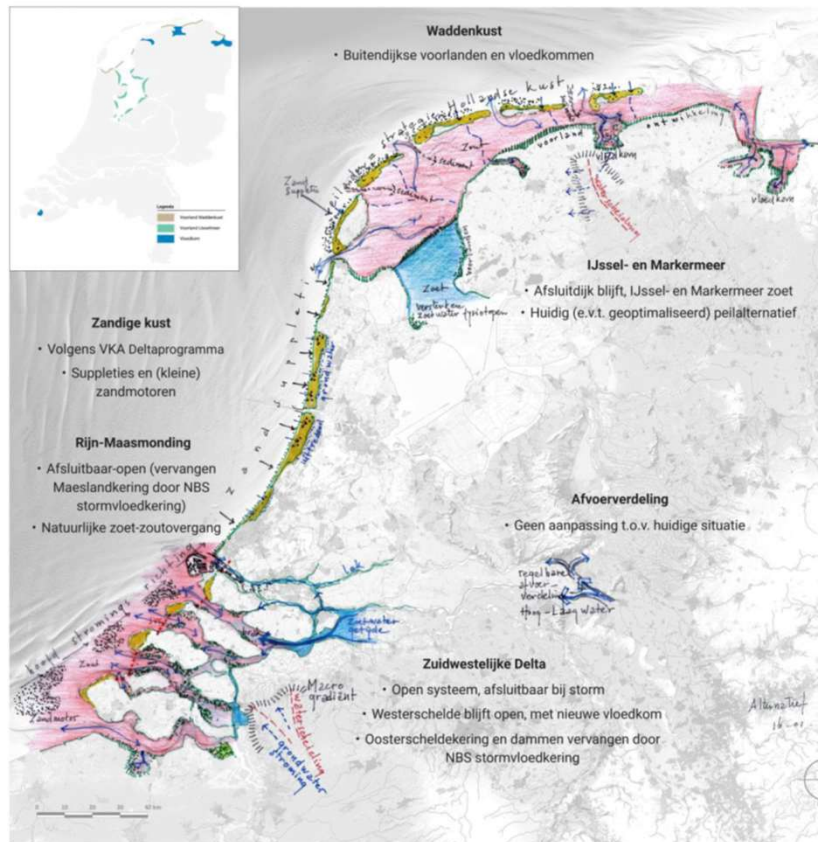
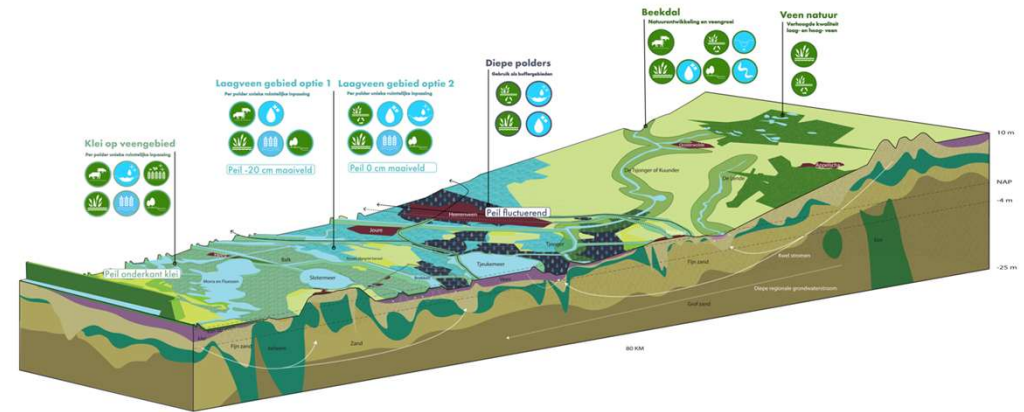
Main Lessons from Cycle 1

- Develop a compelling NbS narrative to mobilize people, resources, and policy.
- Demonstrate the effectiveness and societal economic value of priority NbS solutions.
- Strengthen monitoring to better evidence NbS impacts.
- Develop and standardize guidelines for NbS design and management.
- Embed clear biodiversity targets and multiple project objectives.
- Expand knowledge and experience through more NbS projects and implementation programs.
- Develop a targeted public affairs and communication strategy.
- Position NL2120 as an impact-driven transition program (instead of knowledge program) and stimulate demand creation (e.g. at governmental level).
- Develop landscapes as integrated implementation platforms and the organizational backbone of NL2120.





Future Landscape Visions



NL2120 research: Barriers to scaling NbS

1. Lack of public and private financing mechanisms for NbS
2. Lack of insight into financial and economic benefits and risks
3. Lack of data on NbS co-benefits and long-term effects
4. Lack of good examples of NbS



RAPPORT



Barrières voor opschaling van
nature-based solutions

28-11-2024

NL2120 research: Nature in the city

Policy-historical analysis of the restoration of
the Utrecht Singel.

Four lessons for municipalities

1. Create opportunities for resident participation in policy;
2. Break a large transformation challenge into smaller parts;
3. Show courage as a municipality;
4. Connect different area-based challenges within the city.



NATUUR
& MILIEU
Laat zien dat het kan

RAPPORT



Het herstel van de Utrechtse Singel

Een beleids-historische analyse
14-6-2025

NL2120 research: Socio-economic effects of NbS

In partnership with PAGW, NL2120 applied the Socio-Economic Impact Scan (SEIS) to assess the broader value of NbS compared to conventional grey infrastructure.

Two cases: the multi-channel concept in the Waal and the IJssel-Vechtdelta

Key insight: SEIS makes socio-economic effects measurable at an early stage, levelling the playing field between green and grey solutions.



NbS for sea level rise

Consortium approach well received by the Ministry and Delta Programme in November 2025.

Lessons from the consortium

1. Significant impact can be achieved in a short timeframe.
2. The study demonstrated that an NbS approach was feasible and comparable in cost to conventional grey solutions.



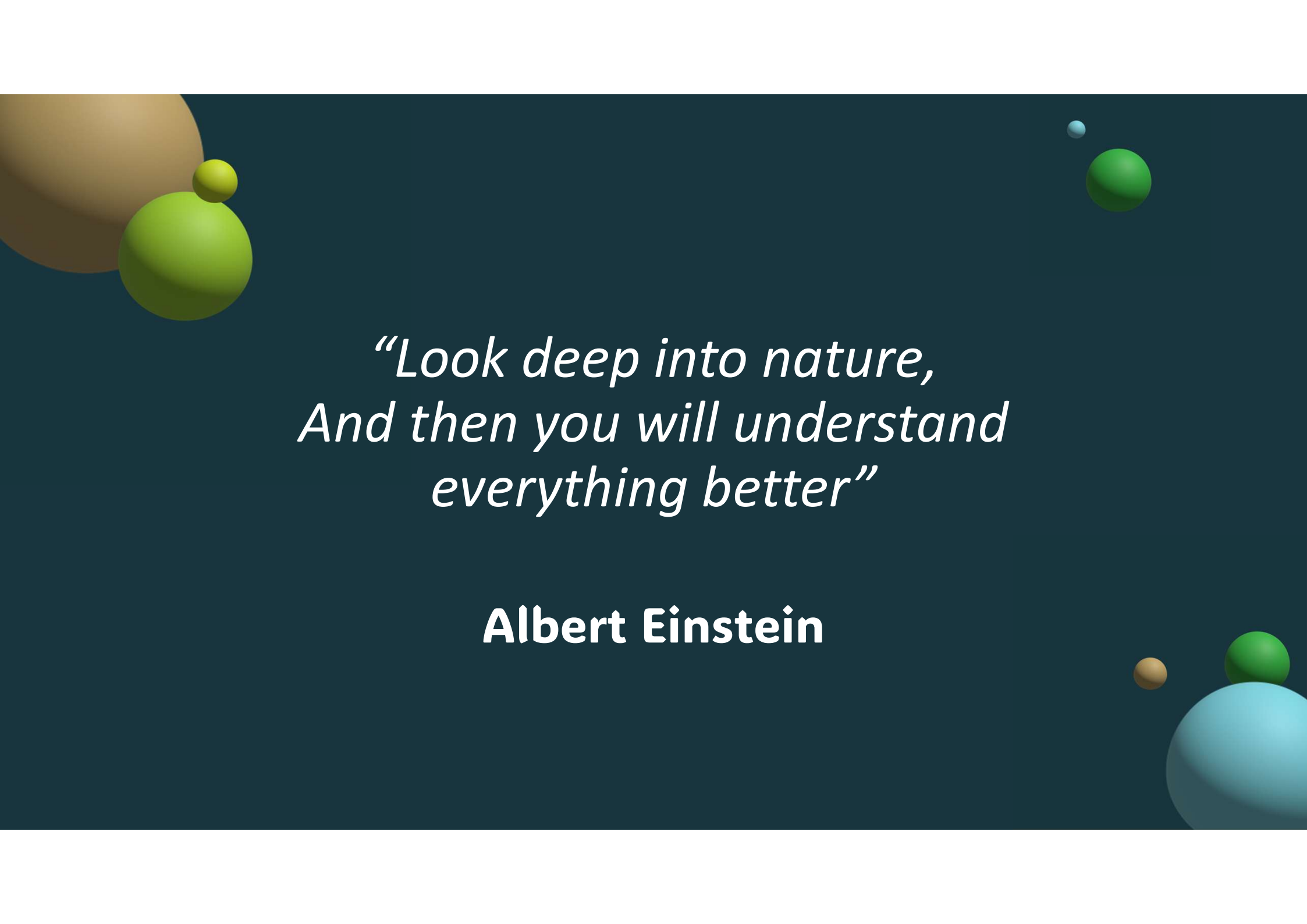
🏠 NATIONAAL DELTAPROGRAMMA > Nieuws

Natuur kan helpen bij bescherming tegen zeespiegelstijging

Nieuwsbericht | 13-11-2025 | 10:17

Nederland kan bij de bescherming tegen de zeespiegelstijging goed gebruik maken van de natuurlijke dynamiek in de kustgebieden. Door zand en slib in te vangen ontstaan nieuwe hoger gelegen gebieden die een natuurlijke buffer vormen tegen de zee. Dit draagt bij aan de waterveiligheid en zorgt ook voor een verbetering van de typische en waardevolle Nederlandse deltanatuur.



The background is a dark teal color. In the top-left corner, there is a large orange sphere, a medium green sphere, and a small yellow sphere. In the top-right corner, there is a small light blue sphere and a medium green sphere. In the bottom-right corner, there is a small orange sphere, a medium green sphere, and a large light blue sphere.

*“Look deep into nature,
And then you will understand
everything better”*

Albert Einstein



Thomas Vijverberg
Tina Mertens
Dries Bonte





From strategic vision to innovation opportunities

[Home](#) » [Calendar](#)

Nature Restoration in the Belgian Part of the North Sea

Nature restoration in the North Sea: where do we stand today, and how do we take the next step? Discover the latest scientific insights, explore concrete funding opportunities, and join the discussion on how we can make a difference together for a healthy sea.

Date Thursday, May 28 2026 · 12 - 5pm

Address De Grote Post, Hendrik Serruyslaan 18A, 8400 Oostende

On 28 May, the Federal Public Service for Public Health (Marine Environment Service) and Blue Cluster are organising a symposium on nature restoration in the Belgian part of the North Sea.

We bring together experts, policymakers and companies to share the most recent insights. In addition, we explore how nature restoration projects can secure funding and how we can strengthen public

SHARE



Sustainable coastal management

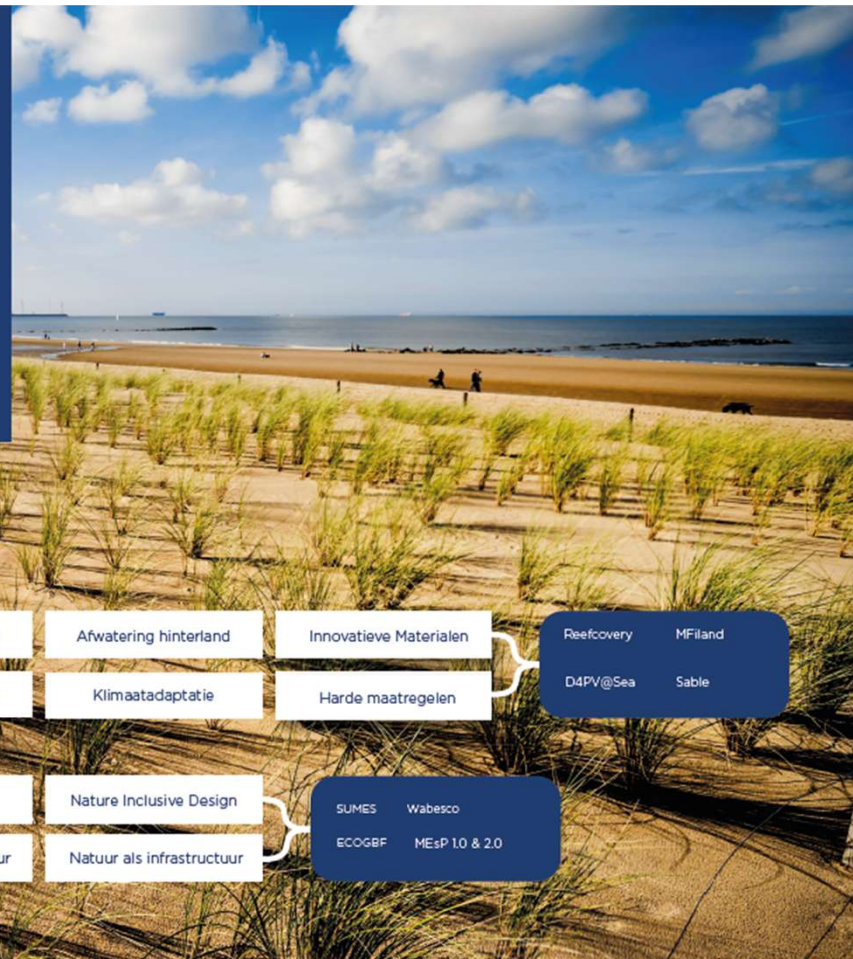
Developing nature-inclusive marine and coastal infrastructure for a resilient future

Smart coastal protection powered by natural dynamics.

From Blue Carbon to biodiversity: engineering with nature to deliver climate and business gains

Duurzaam Kustbeheer

Duurzaam Design



Duurzaam Design

Infrastructuur

Havenbescherming

Afwatering hinterland

Innovatieve Materialen

Reefcovery

MFiland

Resilience by design

Klimaatadaptatie

Harde maatregelen

D4PV@Sea

Sable

Nature Inclusivity

Nature positivity

Nature Inclusive Design

SUMES

Wabesco

Multi-use infrastructuur

Natuur als infrastructuur

ECOGBF

MEsP 1.0 & 2.0



RESOURCEFULL

Blue Session Duurzaam Kustbeheer

Feestelijke opening flash calciner VITO

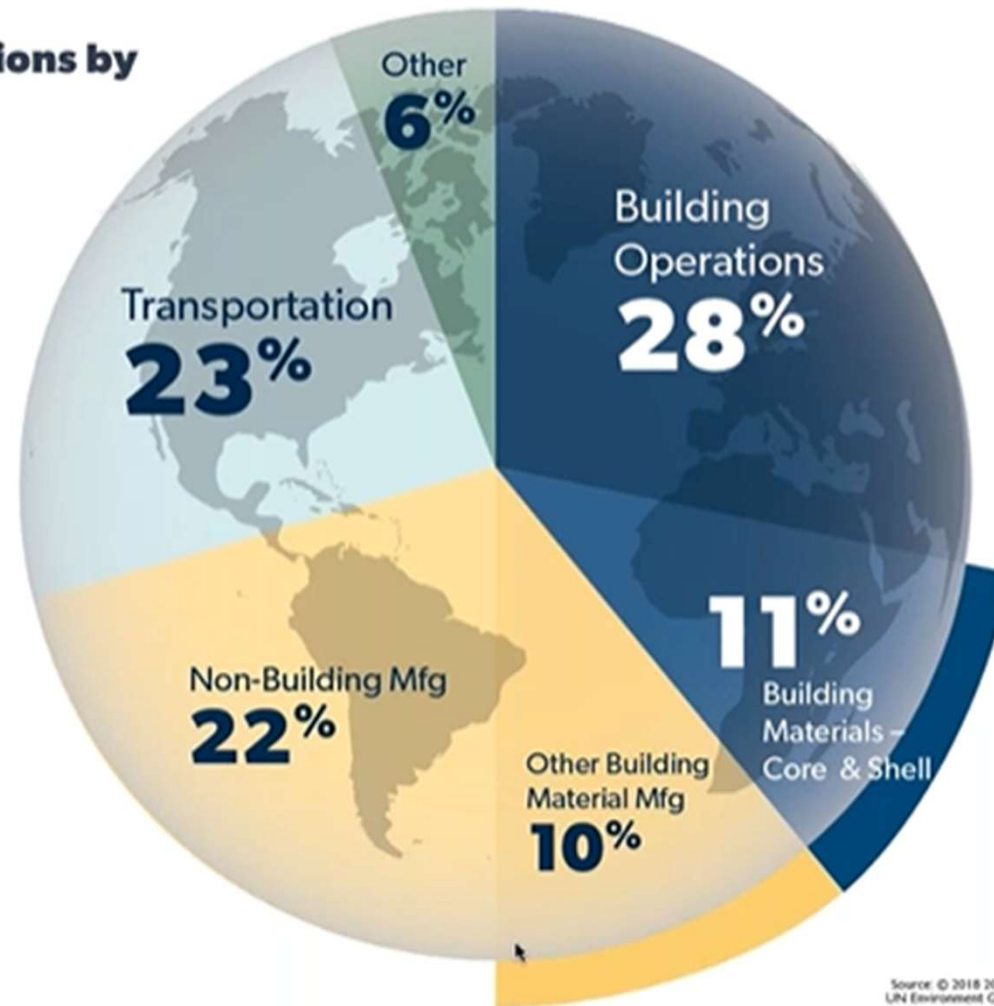
A photograph of three men in a warehouse or workshop setting, all wearing dark-colored sweatshirts with the 'Resourcefull' logo. The man on the left is holding a small object, possibly a tool or a sample. The man in the middle is looking down at something in his hands. The man on the right is looking towards the other two. The background shows shelves with various boxes and materials. The text 'Enabling low impact building materials, shoulder to shoulder with our customers.' is overlaid in the center of the image.

Enabling **low impact** building materials,
shoulder to shoulder with our customers.



RESOURCEFULL

**Total global emissions by
sector, 2017**



Source: © 2018 2030, Inc. / Architecture 2030. All Rights Reserved. Data Sources:
UN Environment Global Status Report 2017, EIA International Energy Outlook 2017



Meest gebruikte door de mens gemaakte materiaal ter wereld

12.500.000.000 m³ per jaar



Meest gebruikte door de mens gemaakte materiaal ter wereld

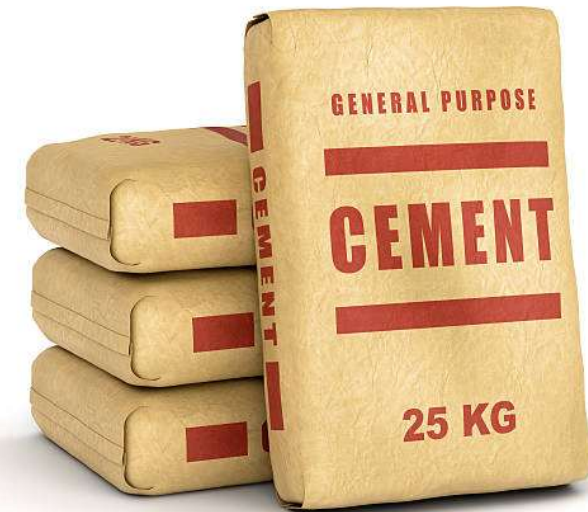
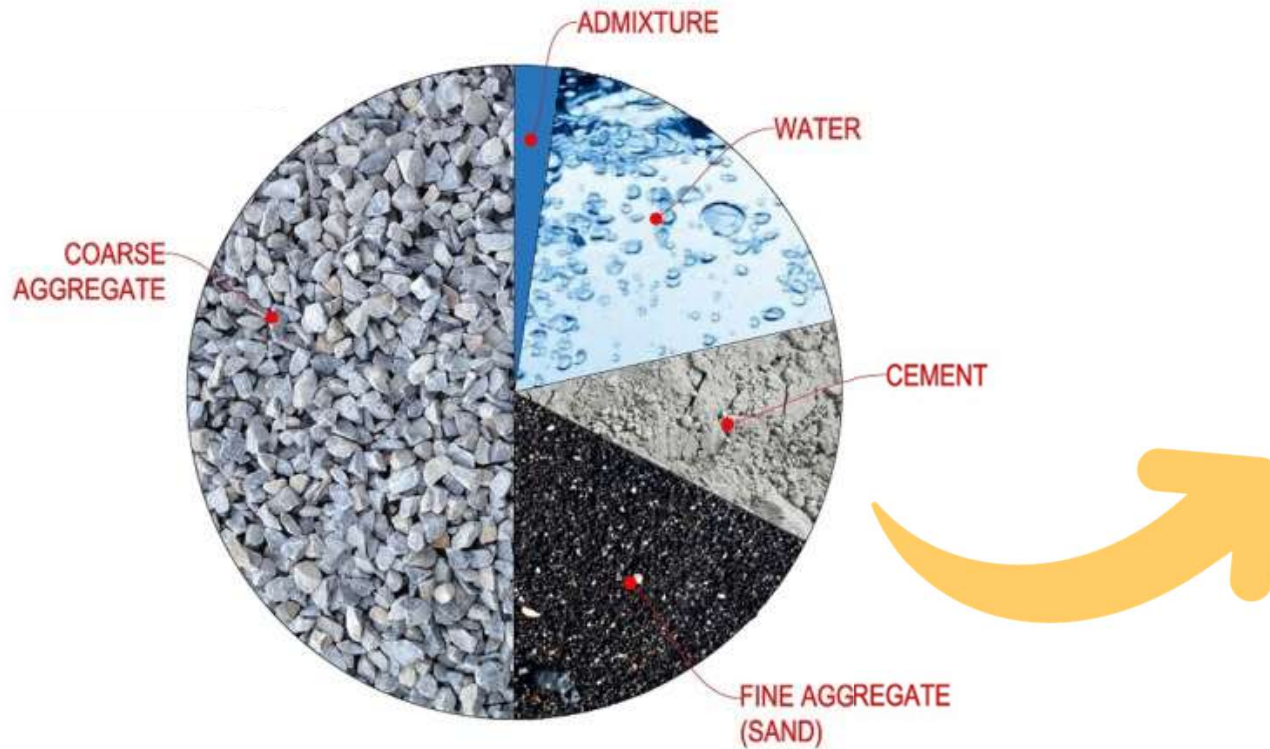
12.500.000.000 m³ per jaar



Beton



Cement



8 % van de wereldwijde CO₂ emissies



Ecologische voetafdruk: grondstoffen



water

**1
kg CO₂ / ton**



granulaat

**10
kg CO₂ / ton**



toeslagstoffen

**30 - 100
kg CO₂ / ton**



CEM I 52,5 R

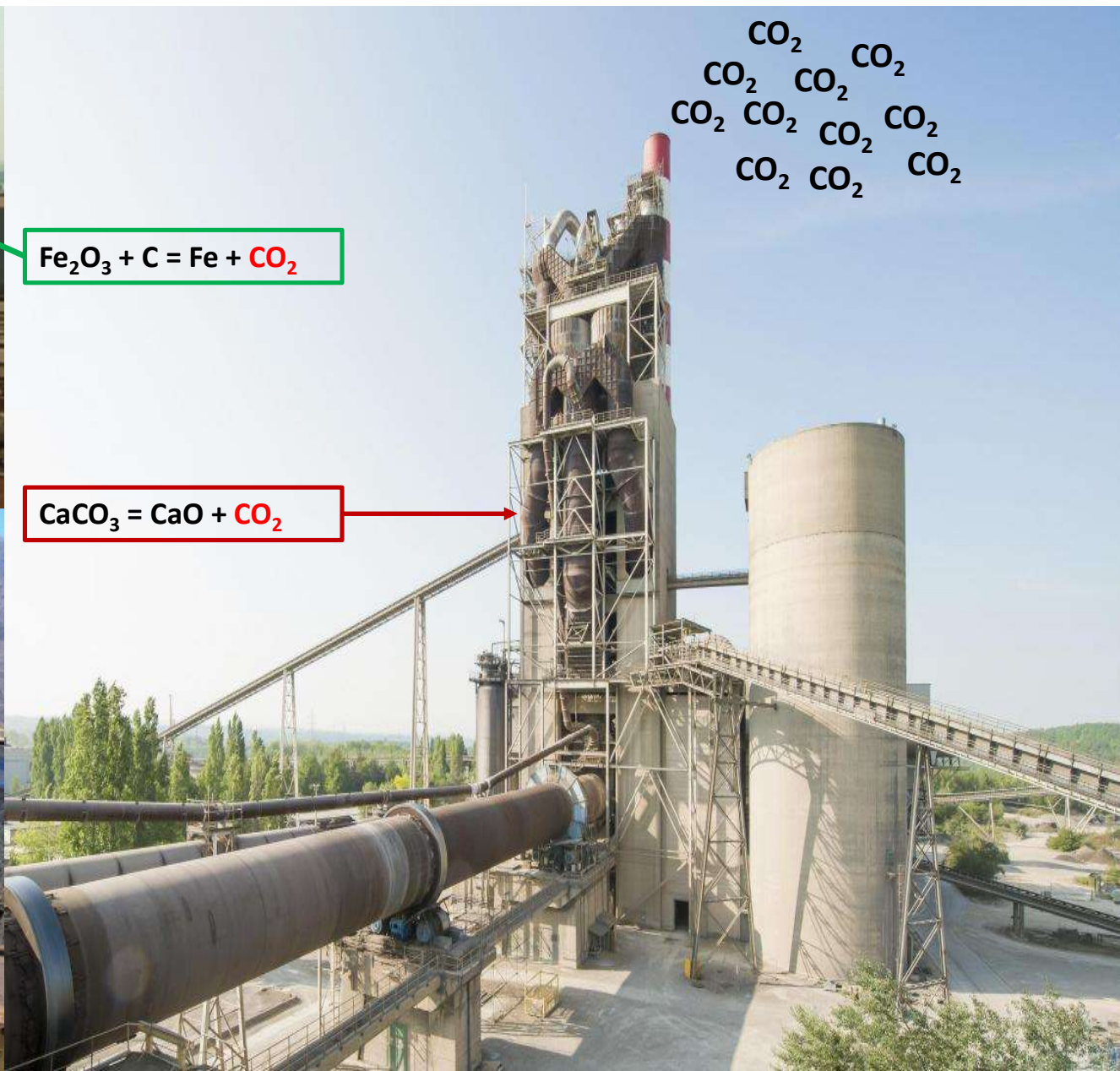
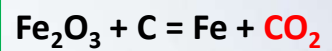
**1000
kg CO₂ / ton**



staal

**1000-2000
kg CO₂ / ton**

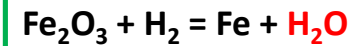
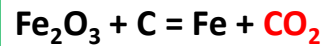
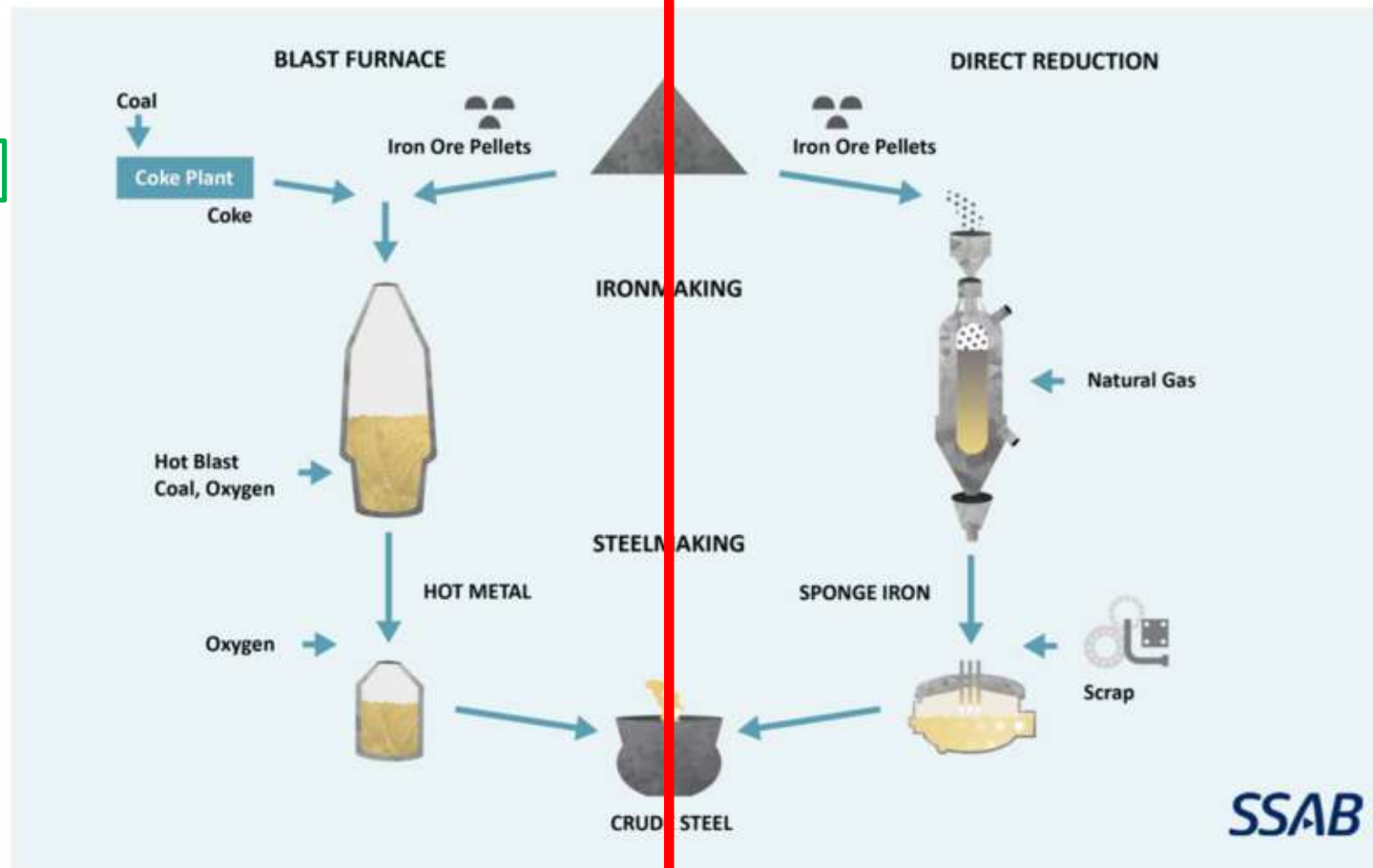




CO₂-vrij staal: elektrisch en waterstof

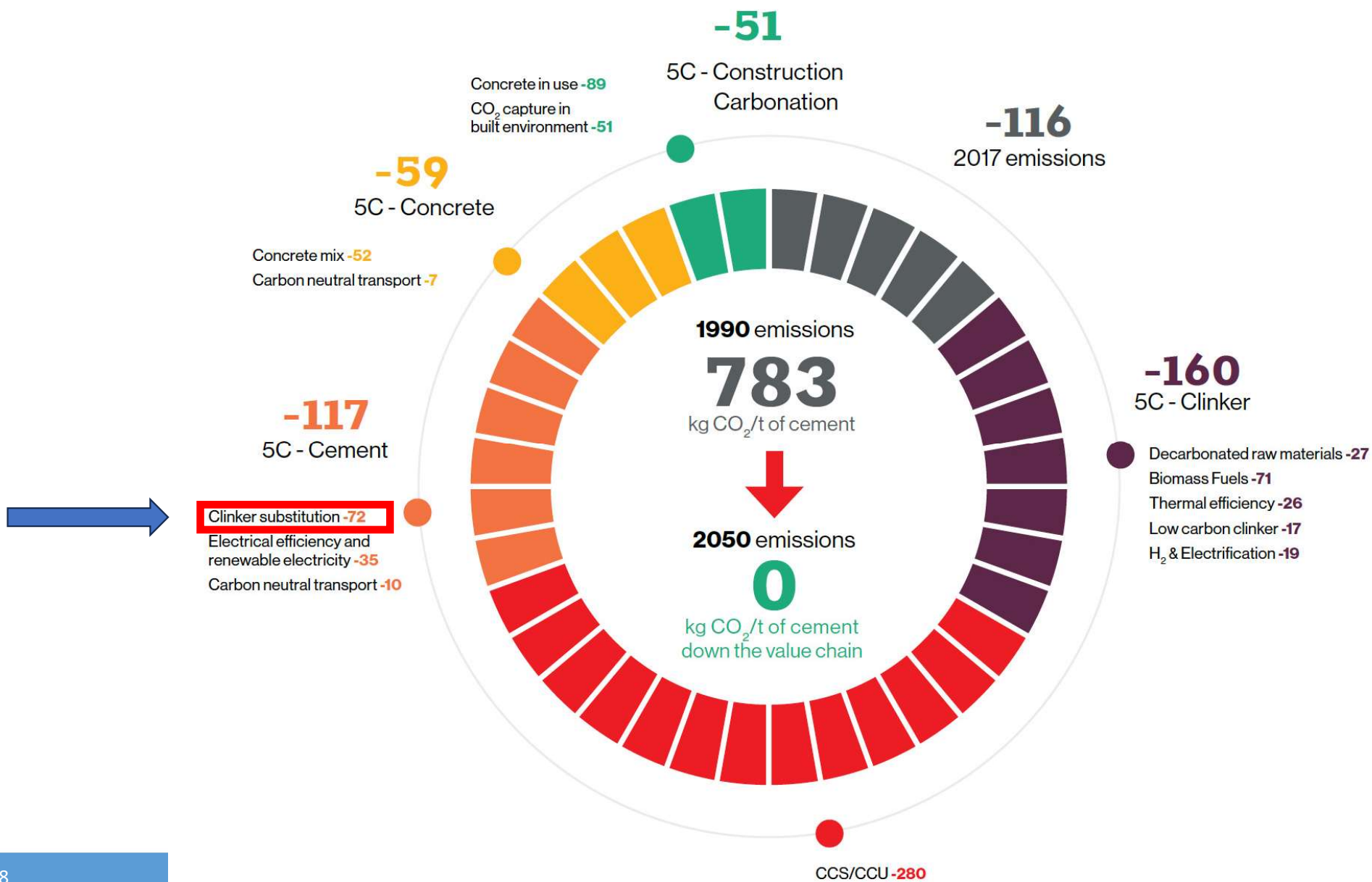
Huidige flowsheet

Toekomstige flowsheet



CO₂-vrij cement: carbon capture





Metallurgical residues



From slag to stair





Your engineering partner for low carbon concrete



1



Pre-treatment and analysis

Chemical analysis
Mineral analysis
Crushing/grinding
Sizing and separation
Thermal processing

2



Binder development

Alkali activation
Cement replacement
Acid activation
Carbonation
Mg-cement
Ceramics

3



Product development

3D-printing mortar
Acid resistant mortar
Floor screed
Ready-mix concrete
UHPC
Bricks

4



Performance testing

Aggregate testing
Workability
Strength testing
Freeze-Thaw
Carbonation

5



Scale - up

Industrial implementation
LCA
Waste legislation
Building legislation



RESOURCEFULL

Chemical Resistant Concrete

C50/60 XA3 CEM III/B



Week 0



Week 3



Week 6



Week 9



Week 12

C35/45 XA3 AAM ResourceFull



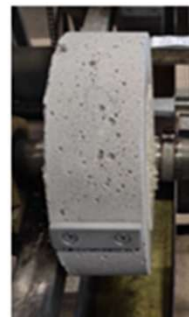
Week 0



Week 3



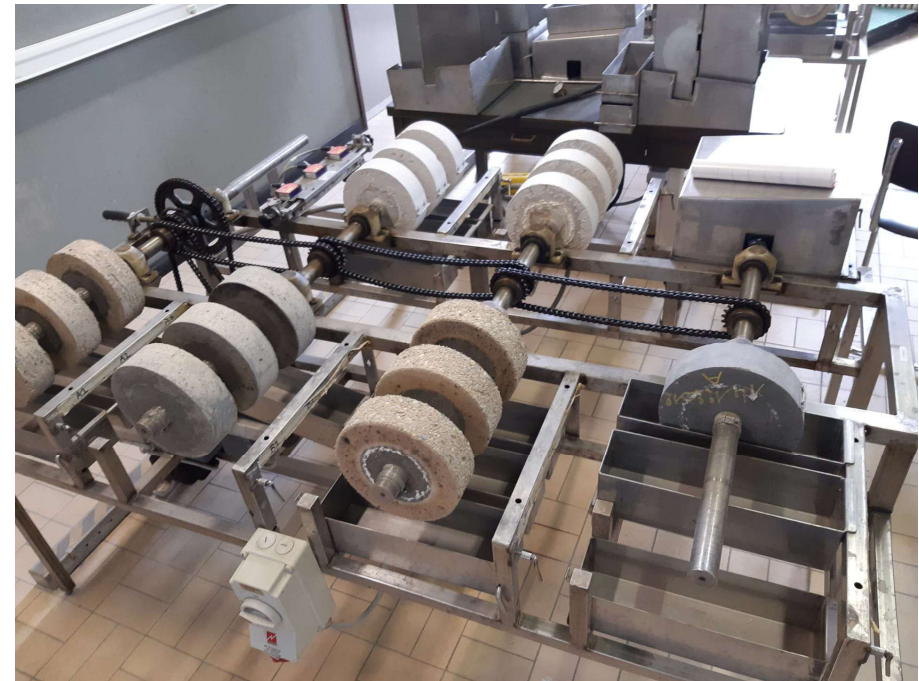
Week 6



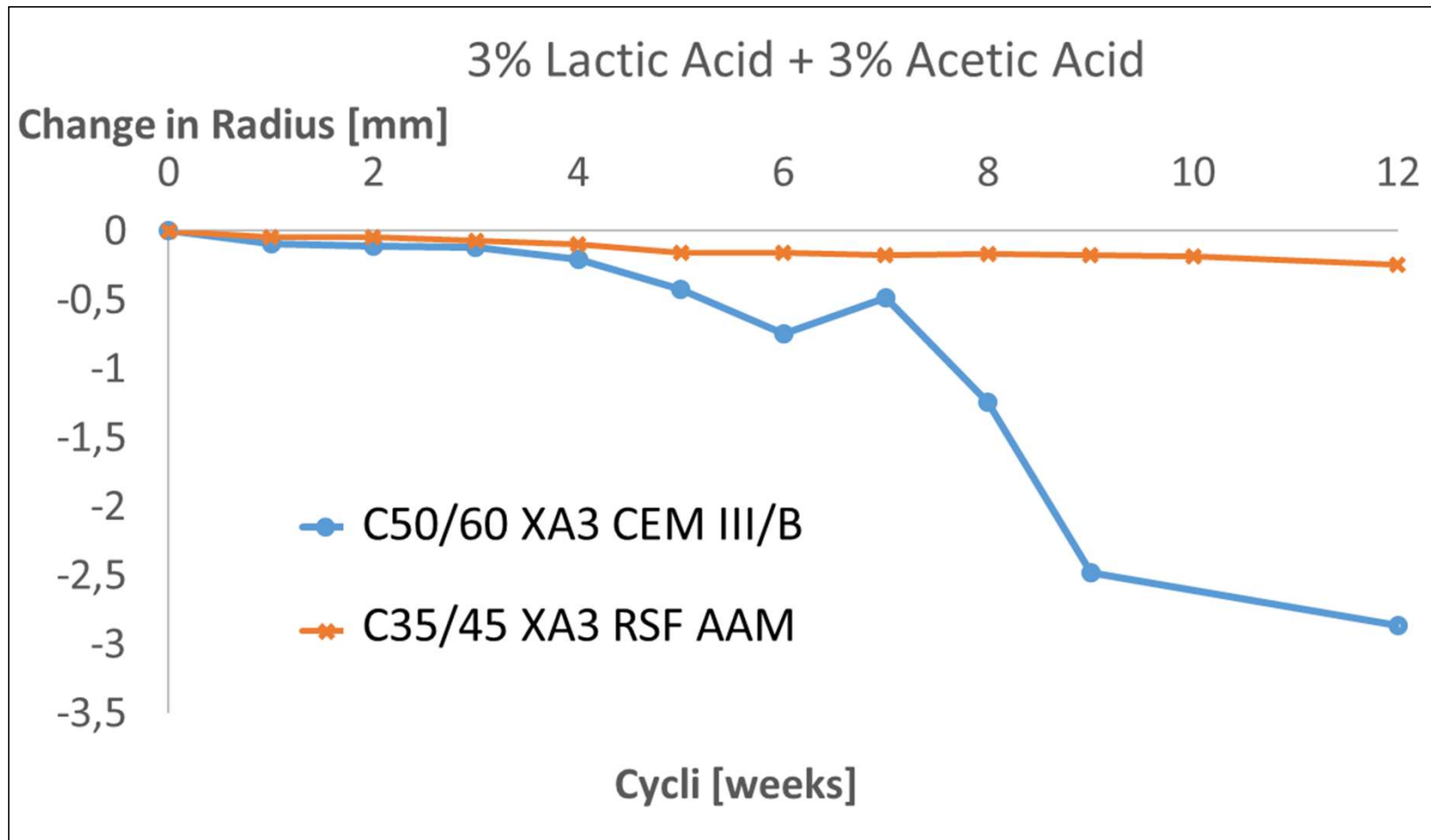
Week 9



Week 12



Chemical Resistant Concrete



- Excellent resistance against:
 - Sulfates
 - Chlorides
 - Organic acids



Chemical Resistant Concrete

STRABAG

ILVO



AC MATERIALS
by SQUARE GROUP

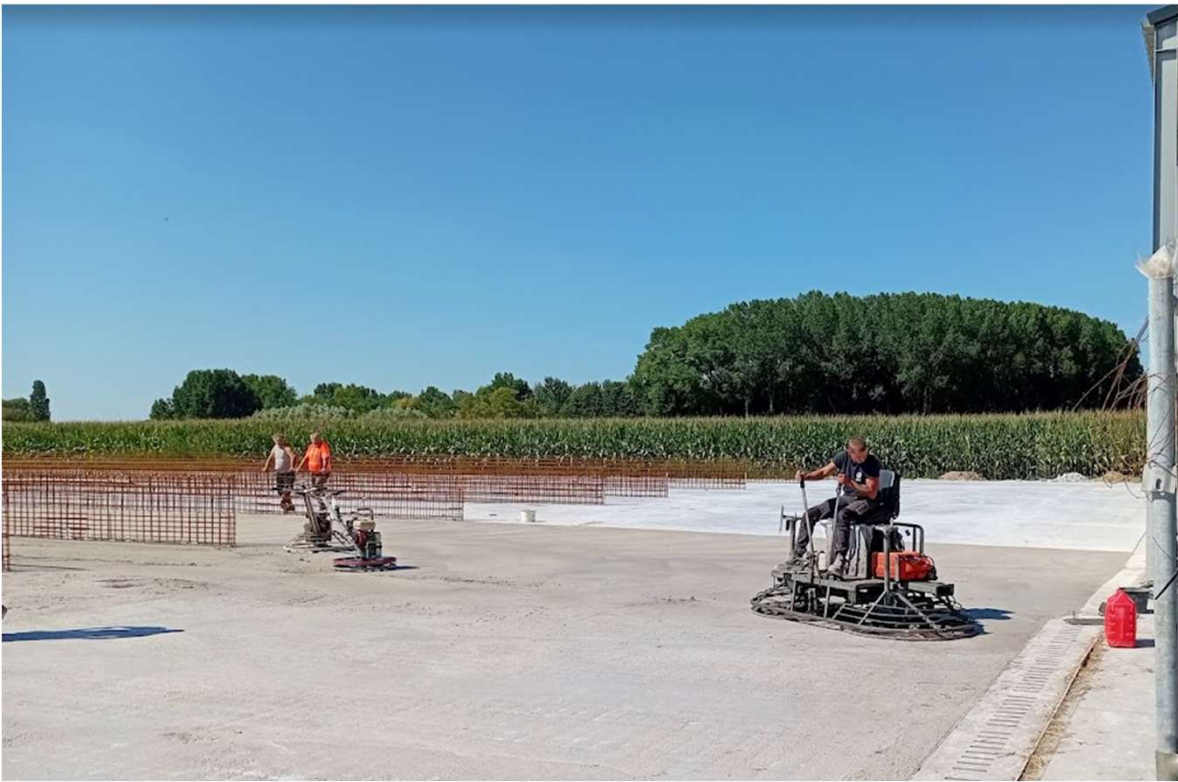


RESOURCEFULL

Chemical Resistant Concrete



Chemical Resistant Concrete



Chemical Resistant Concrete



Chemical Resistant Concrete



Chemical Resistant Concrete



Chemical Resistant Concrete



Is there more than slag?



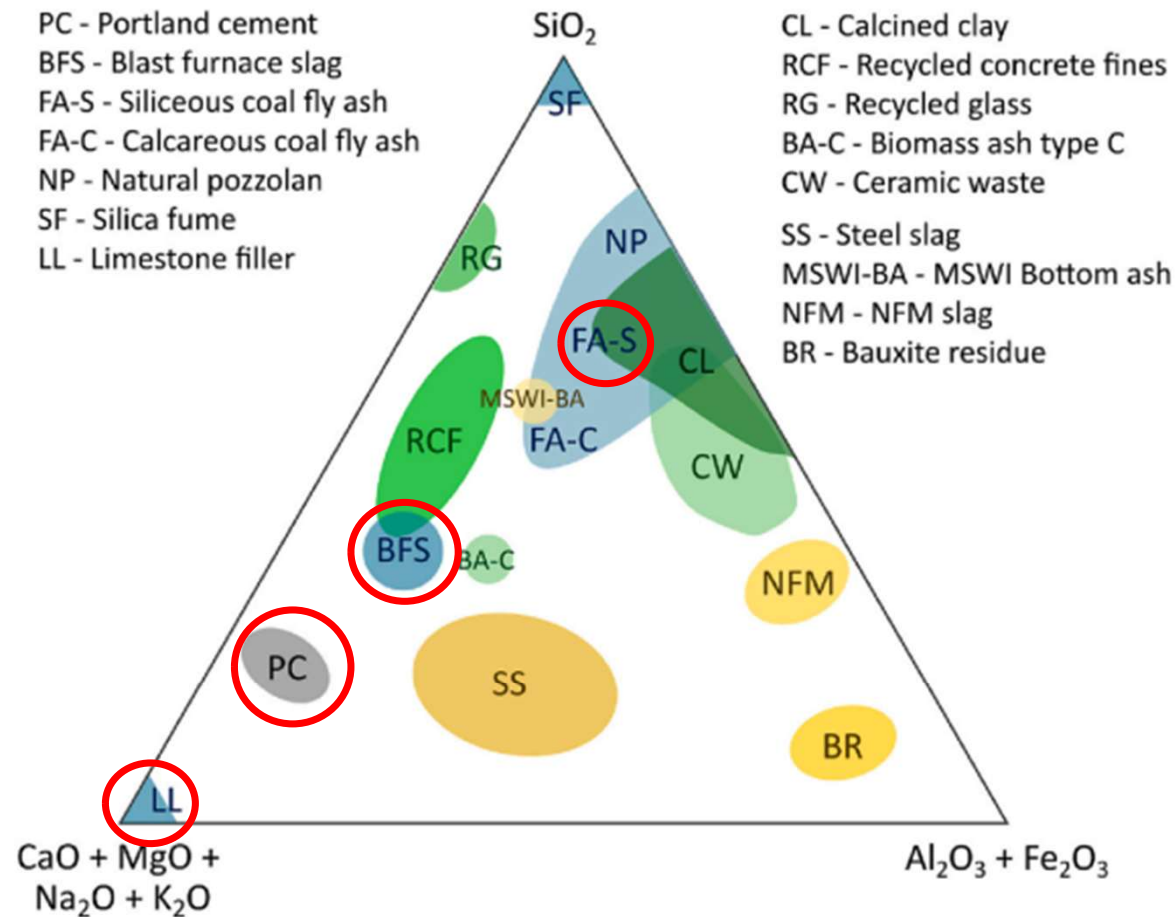


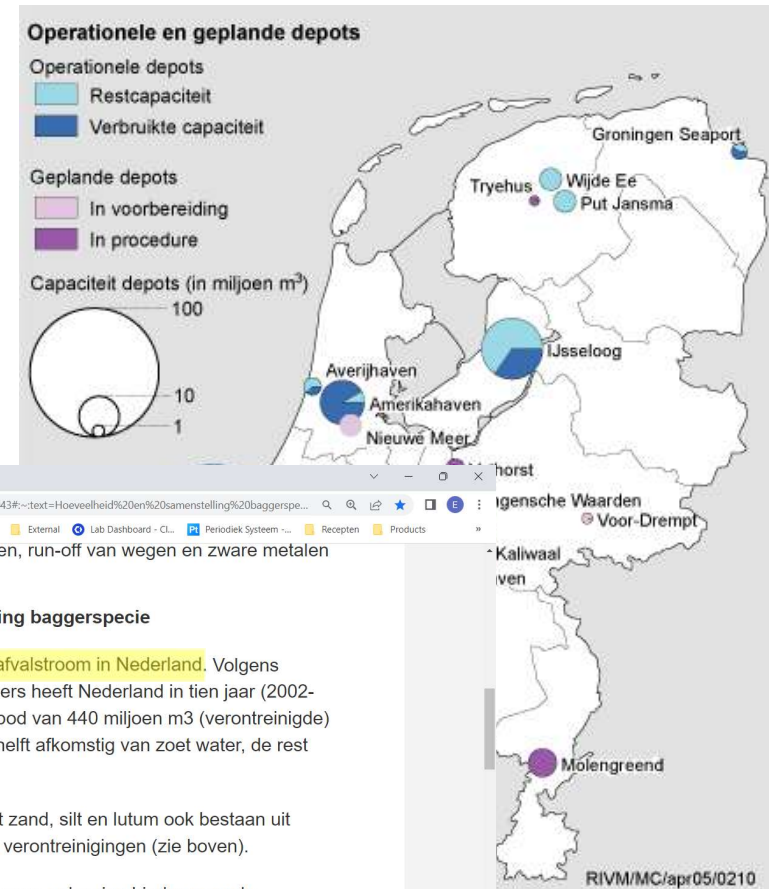
Fig. 1. The chemical composition ranges of common, emerging and future SCMs in a ternary diagram of (earth)alkalis–silica–alumina/iron oxide (in wt%). NFM stands for “non-ferrous metallurgical”, MSWI for “municipal solid waste incineration”. Commonly used SCMs and fillers are in green shades and emerging SCM sources are in yellow shades. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)





Baggerspecie

- Rijk aan zand, silt, kleien en organisch materiaal



Eigenschappen baggerspecie | B | +

← → bodemrichtlijn.nl/Bibliotheek/bouwstoffen-en-afvalstoffen/baggerspecie-en-slootslib/eigenschappen-baggerspecie111043#:~:text=Hoeveelheid%20en%20samenstelling%20baggerspe... q

mysdwork Dashb... Eindhoven Projects Cement Design Reintje Statistics Software Data Management... External Lab Dashboard - CL... Periodiek Systeem... Recepten Products

→ Bouwstoffen en afvalstoffen, Bermmaaisel/-schraapsel, slootveek, veegvuil, RKG- en ZOAB-slib

→ Beton (incl. colloïdaalbeton)

→ Betonelementen

→ Betonnen damwand

→ Bitumenemulsie, vloeibitumen en asfaltkleefmiddel

→ Bodemassen en slakken

→ Boompalen en boombanden

→ Brekerzeefzand

→ Breuksteen

→ Calamiteitenafval

→ Dakbedekking (dakleer, bitumen- en teerhoudend)

→ Elektrische en elektronische apparatuur

→ EPS-blokken

→ Flugsand

→ Geotextielgelezen

ook anti-fouling van schepen, run-off van wegen en zware metalen uit beschoeiing.

Hoeveelheid en samenstelling baggerspecie

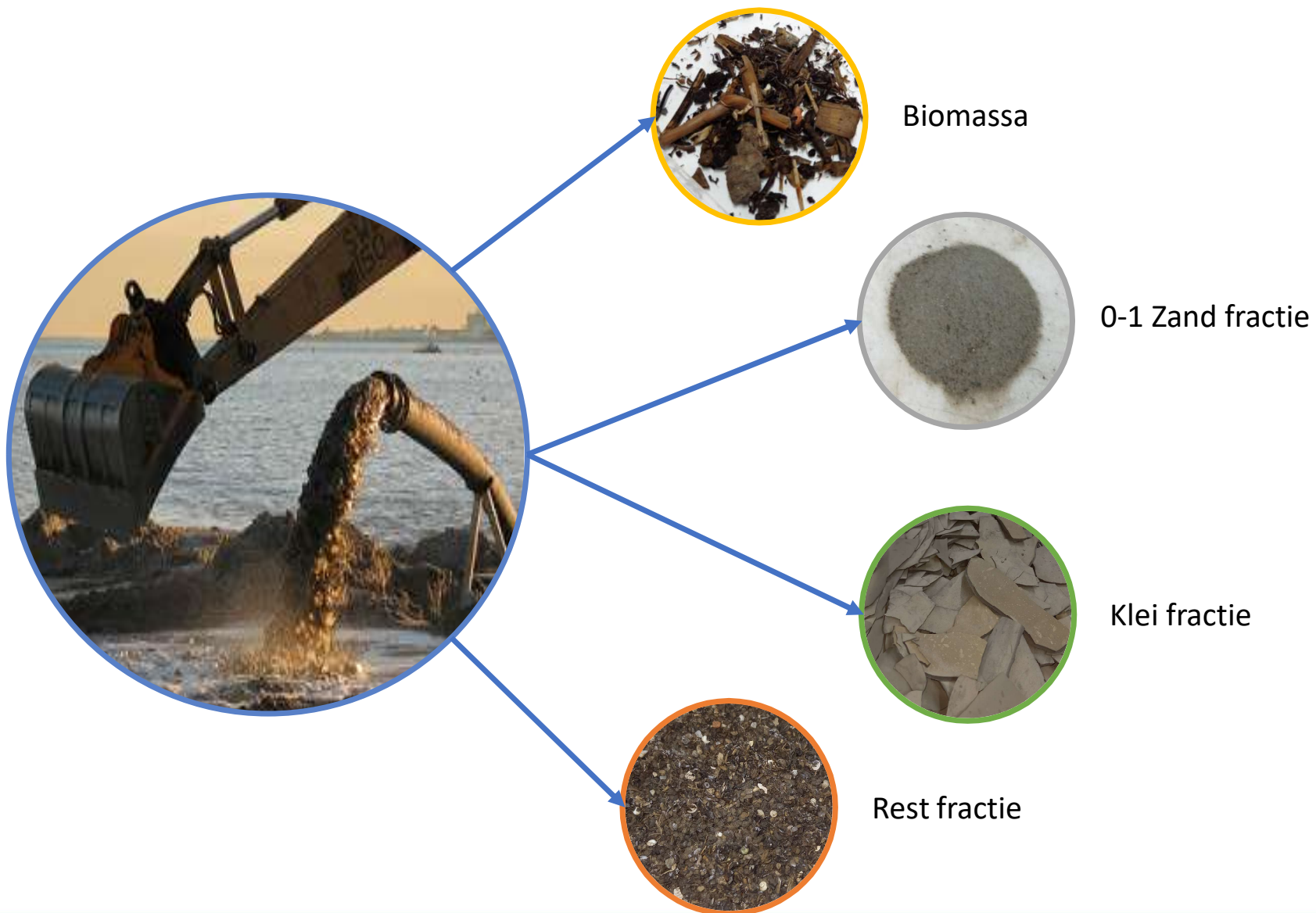
Baggerspecie is de grootste afvalstroom in Nederland. Volgens opgave van de waterbeheerders heeft Nederland in tien jaar (2002-2011) te maken met een aanbod van 440 miljoen m³ (verontreinigde) baggerspecie. Hiervan is de helft afkomstig van zoet water, de rest van zout water.

Baggerspecie kan behalve uit zand, silt en lutum ook bestaan uit humeuze delen en eventuele verontreinigingen (zie boven).

Actief waterbodembeheer kan een oplossing bieden voor de omvangrijke en complexe bodemverontreinigingsituaties. In de gebieden van de grote rivieren zijn voor de komende jaren, met name vanuit het aspect bescherming tegen hoogwater, diverse inrichtingsmaatregelen voorzien, zoals dijkversterkingen, rivierverruimende en waterbergende maatregelen. Veel van deze maatregelen gaan gepaard met natuurontwikkeling in de uiterwaarden.

RIVM/MC/apr05/0210





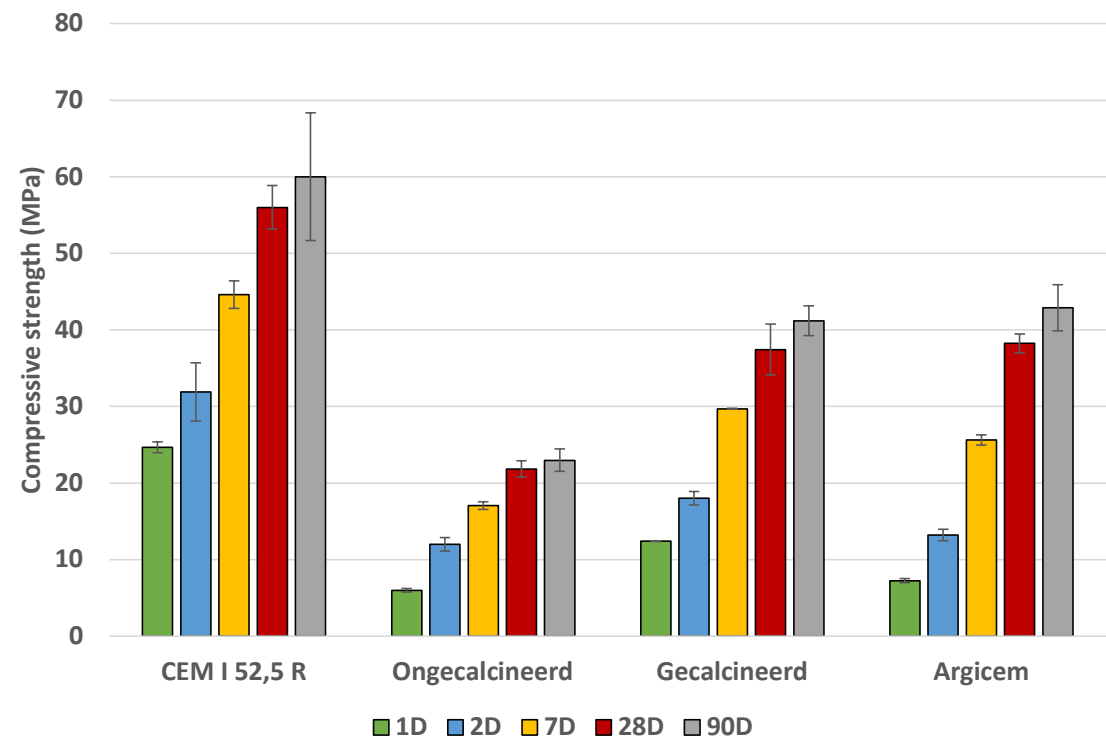
Flash-calcinatie

- Zeer korte snelle calcinatie
- Lagere voetafdruk



Mortelonderzoek

- LC3-systeem: 50% CEM I + 35% gecalcineerd materiaal + 15% kalksteenmeel
- Na calcinatie veel hogere reactiviteit terug te vinden in de klei
- Vergelijkbaar met een commerciële gecalcineerde klei



Reefcovery



REEF COVERY



RESOURCEFULL







Development of 3D printed artificial reefs and water breaking elements.

Zero Cement mortars that are sea water resistant.

Structures and shapes that are excellent for the inoculation of oysters





RESOURCEFULL

ResourceFull
Rozenstraat 5A
9810 Eke
Belgium

www.resourcefull.eu

Lukas Arnout
lukas.arnout@resourcefull.eu

Wouter Crijns
wouter.crijns@resourcefull.eu

Thomas Lapauw
thomas.lapauw@resourcefull.eu

Building a green future, together

Duurzaam Kustbeheer

Ecosystem Engineering



Ecosystem
Engineering

Blue Carbon

Koolstofvastlegging

Carbon removal

Financieringsmechanismen

Blue Alkalinity
Bernardo

Wetcoast
NCN

Exploitatie & beheer

Impactbeheer

Zandvoorraadbeheer

Circulaire sedimentenstromen

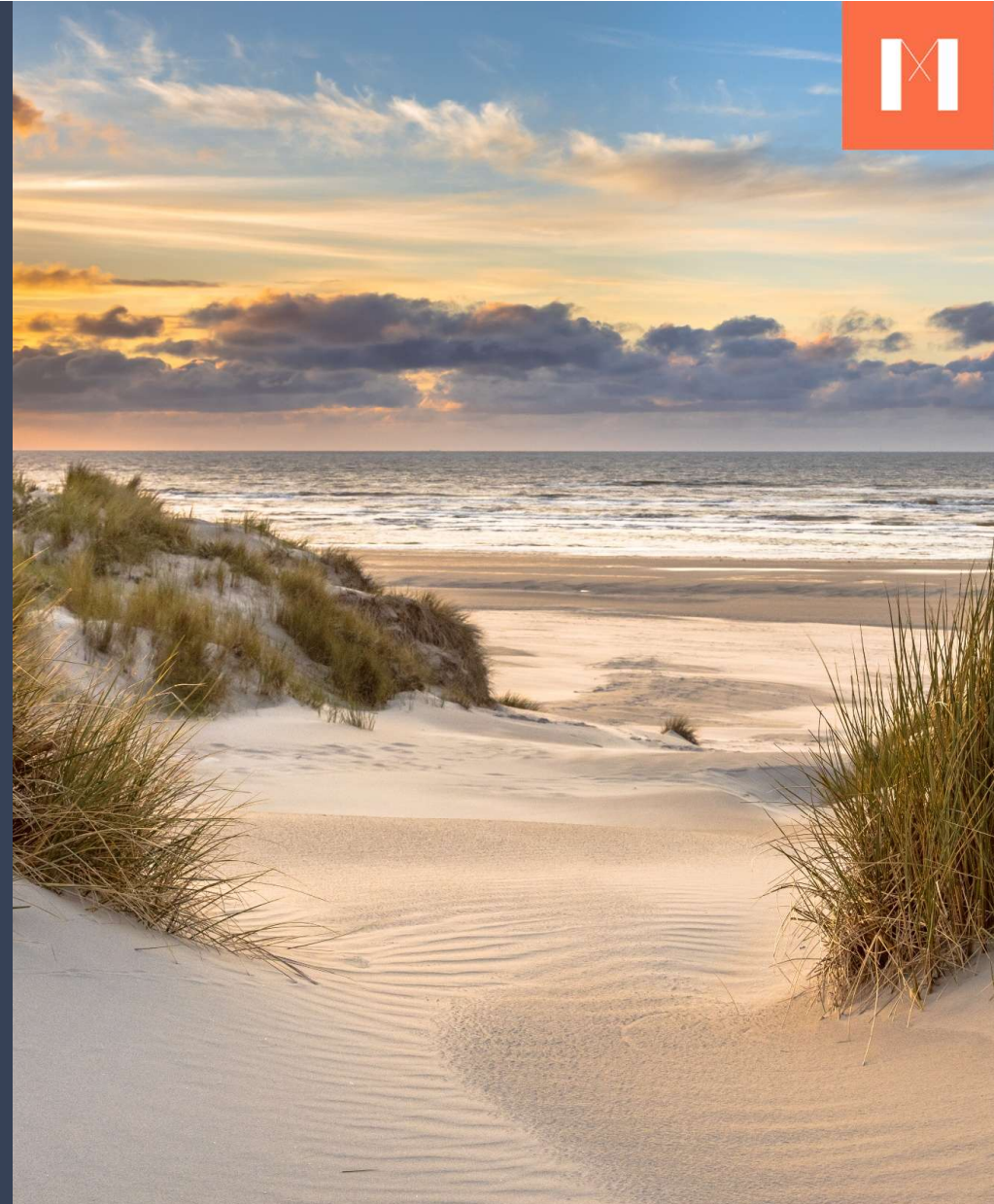
Bankbusters

Susana



Ecosystem Engineering & Blue Carbon

9/9/2026 – Emile Lemey





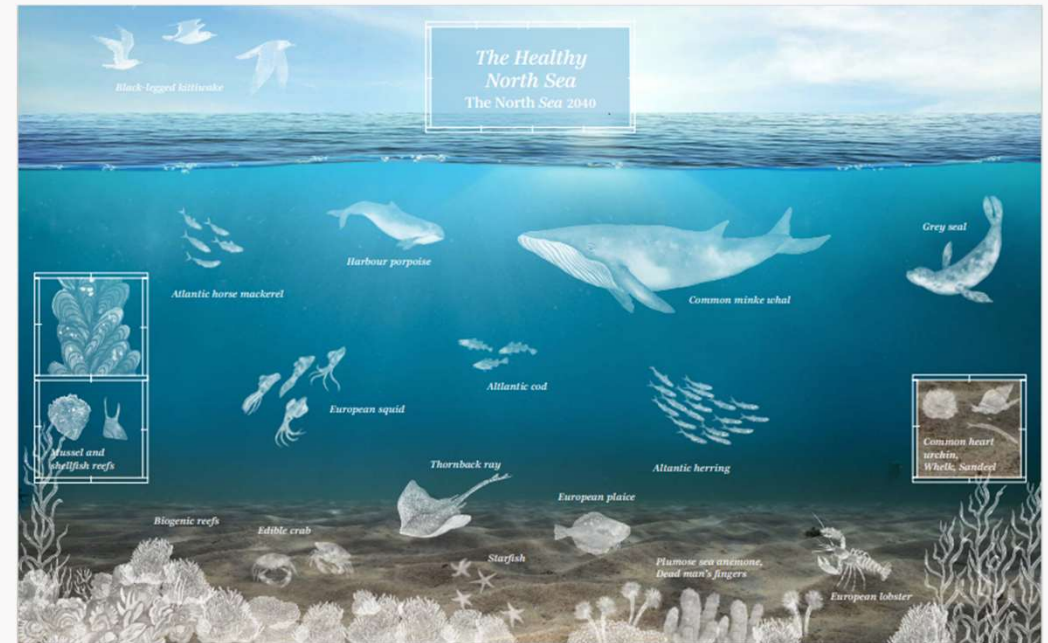
**Imagine our North Sea optimized for
Blue Carbon storage**



**Imagine our North Sea optimized for
Blue Carbon storage**

What does it look like?

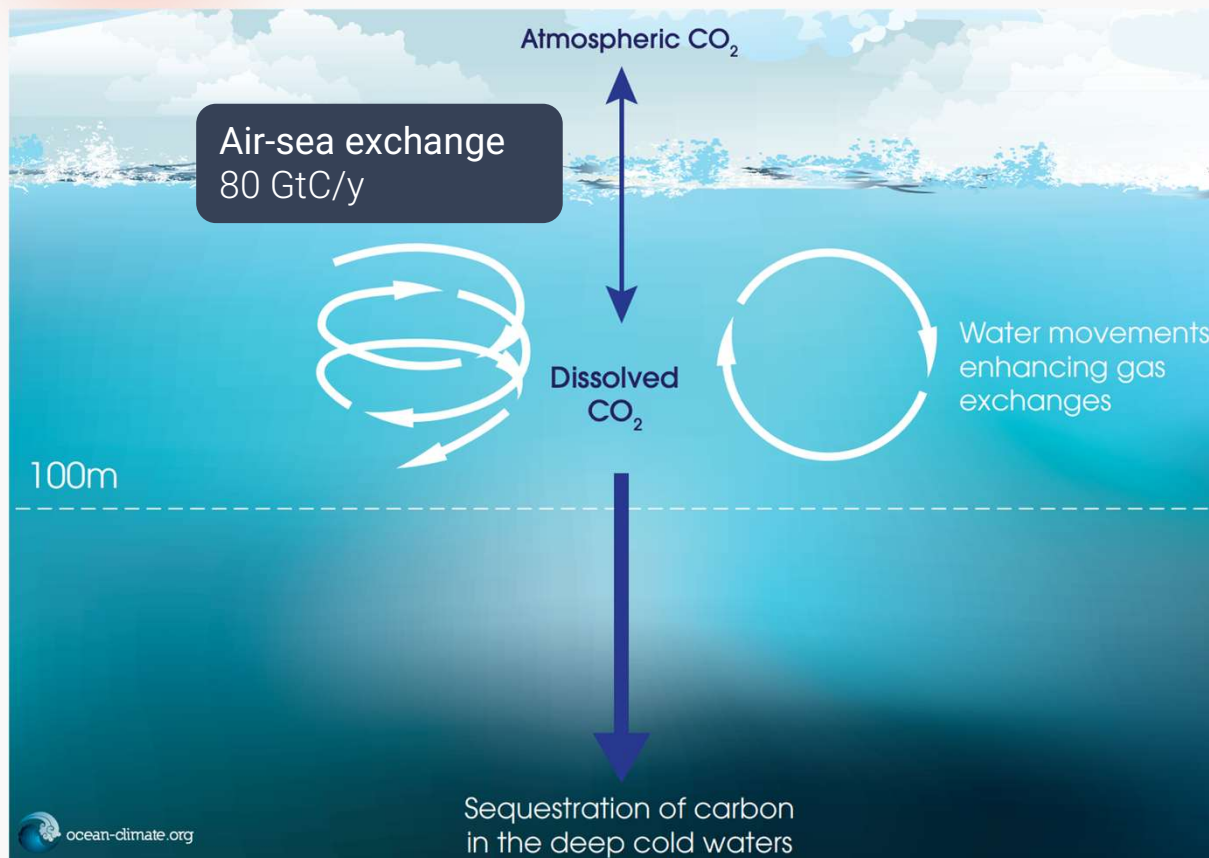
Like this?



©NedZero 'North Sea Vision 2040'



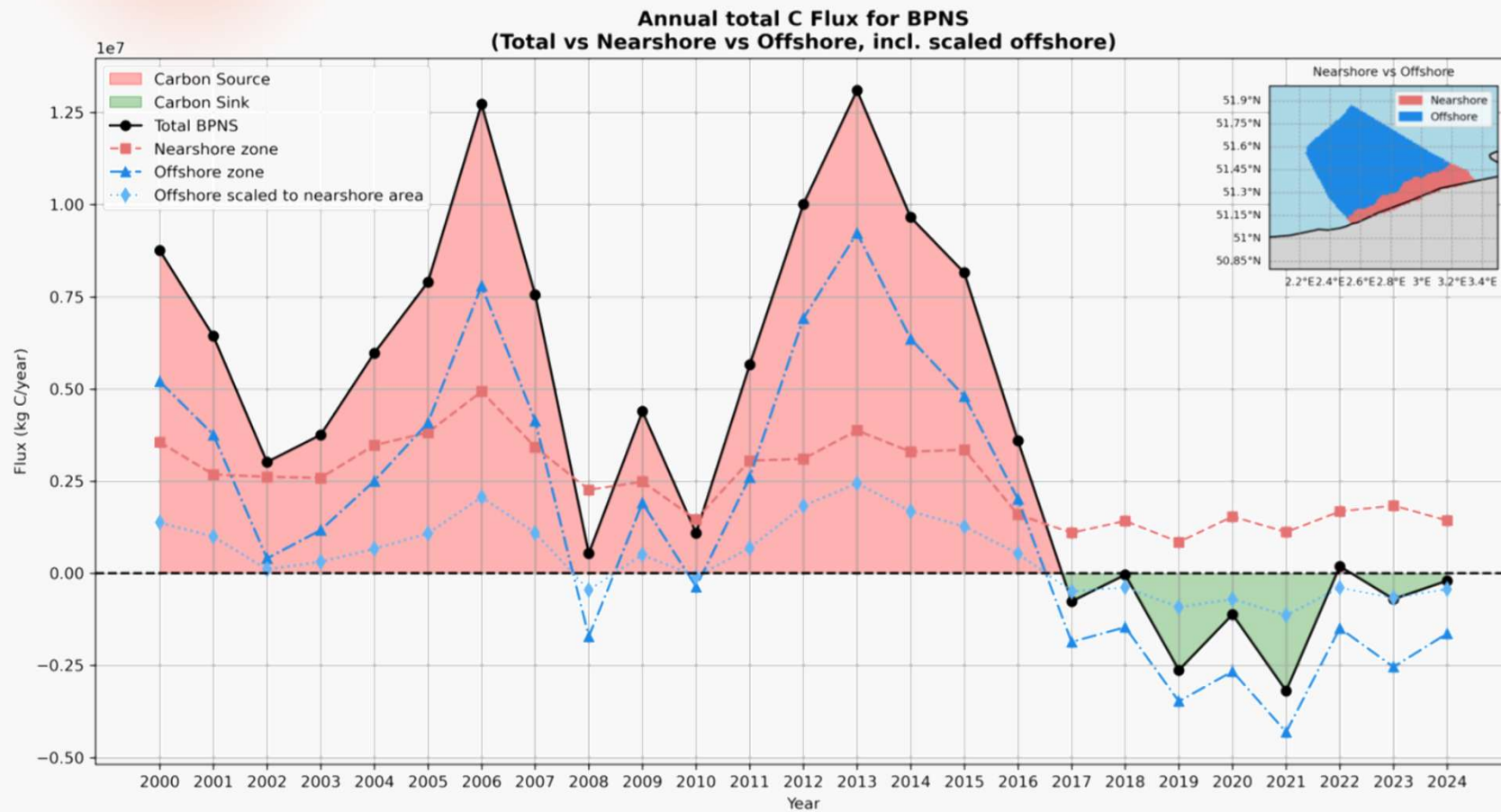
Ocean carbon storage



Net uptake sea surface 3.2 GtC/y 1 – 100 years	29% Of yearly anthropogenic emissions
Deep water transport 2 – 3 GtC/y 100 – 1000 years	21% Of yearly anthropogenic emissions
Seabed sequestration 0.2 GtC/y > 10000 years	1,7% Of yearly anthropogenic emissions

Buffer capacity BPNS

BPNS carbon sink
~1000 tC/y
~0.003 tC/ha/y



0,004%
of anthropogenic
emissions in
Belgium

Long-term carbon storage

BPNS carbon sink
~0.003 tonnes C/ha/y



(TEMPERATE) FORESTS
0.1 – 0.5 tonnes CO₂eq/ha/y

*Storage in aboveground biomass:
4.8 – 6.6 tonnes CO₂eq/ha/y*



INLAND WETLANDS
1.9 – 2.6 tonnes CO₂eq/ha/y

LAND



BIOGENIC REEFS (offshore)
0 - < 3,0 tonnes CO₂eq/ha/y



OFFSHORE WIND FARMS
< 0.2 tonnes CO₂eq/ha/y

OFFSHORE



MANGROVES
3.0 – 11.0 tonnes CO₂eq/ha/y



TIDAL MARSHES
2.0 – 8.9 tonnes CO₂eq/ha/y



SEAGRASS MEADOWS
3.7 – 6.5 tonnes CO₂eq/ha/y



VEGETATED DUNES
1.1 – 3.5 tonnes CO₂eq/ha/y



BIOGENIC REEFS (ondiep)
< 3,0 tonnes CO₂eq/ha/y

COAST

Long-term carbon storage

LAND

MEDIUM STORAGE POTENTIAL
MEDIUM AVAILABLE SURFACE

€ / €€

COAST

HIGH STORAGE POTENTIAL
SMALL AVAILABLE SURFACE

€€

OFFSHORE

LOW STORAGE POTENTIAL
LARGE AVAILABLE SURFACE

€€€€

Building Blocks



ECOLOGICAL LANDSCAPES	B1. Marine Habitat Restoration	B1.1	Oyster Reefs	1
		B1.2	Mussel Reefs	2
		B1.3	Seagrass Meadows	3
	B2. Dune Restoration	B2.1	Coastland Sand Dunes	4
	B3. Wetland Restoration	B3.1	Freshwater Inland Wetlands	5
		B3.2	Coastal Wetlands	6

PRODUCTIVE LANDSCAPES	F1. Carbon Management	F1.1	Deep-Rooting Crops	7
		F1.2	Organic Soil Amendment	8
		F1.3	Zero Tillage Farming	9
	F2. Productive Land Conversion	F2.1	Paludiculture	10-
		F2.2	Salt-Tolerant Agriculture	11
		F2.3	Grassland	12
		F2.4	Agroforestry	13
	F3. Marine Production	F3.1	Seaweed Aquaculture	14

CARBON SEQUESTRATION

14 carbon sequestration building blocks
2 categories
offshore and onshore



ORG:

WHAT IF STAKEHOLDERS EMBRACE CHANGE?

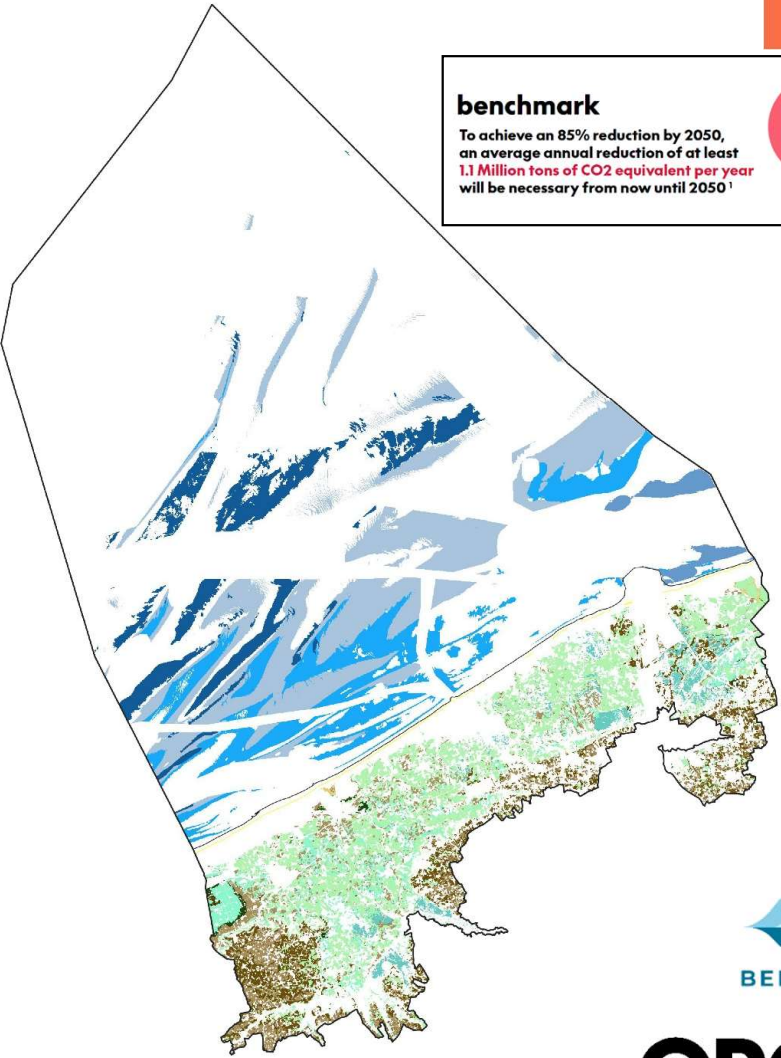
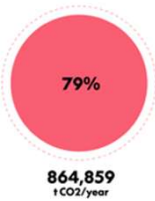
SCENARIO 1: HIGH RANGES

LEGEND

- Oyster Reefs
- Mussel Reefs
- Seagrass Meadows
- Coastal Sand Dunes
- Freshwater Inland Wetlands
- Coastal Wetlands
- Deep-Rooting Crops
- Organic Soil Amendment
- Zero-Tillage Agriculture
- Paludiculture
- Salt-Tolerant Agriculture
- Grasslands
- Agroforestry
- Seaweed Aquaculture

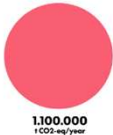
67,776.4
45,383.6
681.1
1,108.0
8,741.6
496.1
756.6
97,866.7
3,381.4
277,484.9
63.4
217,736.6
45,688.2
97,694.4

864,859.0 t CO2/year



benchmark

To achieve an 85% reduction by 2050, an average annual reduction of at least 1.1 Million tons of CO2 equivalent per year will be necessary from now until 2050¹



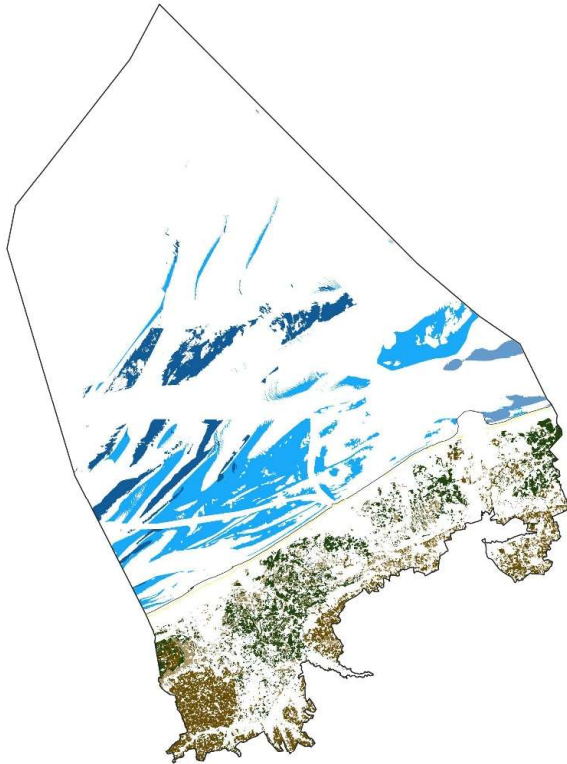
ORG:

Scenario 2

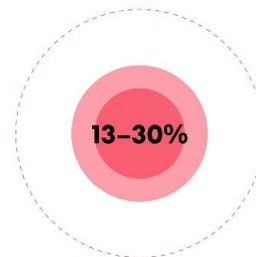
BERN

4

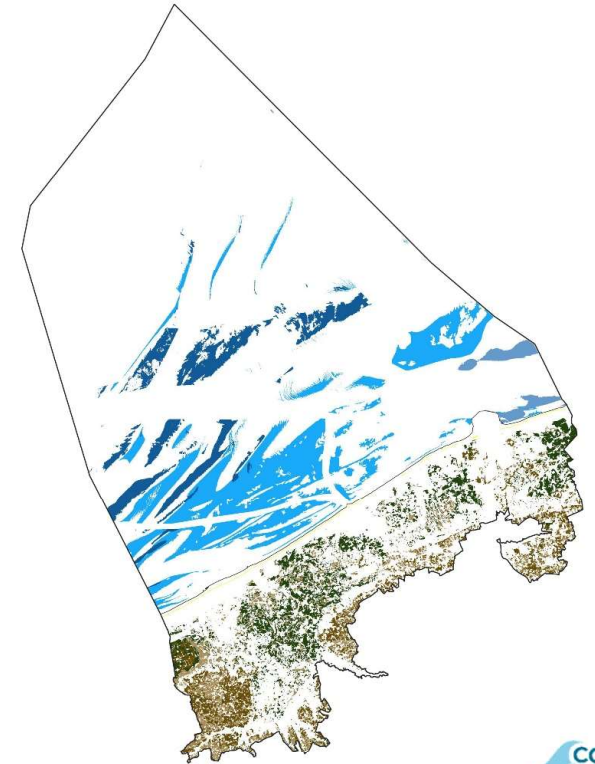
WHAT IF WE ACHIEVE MAXIMUM IMPACT WITH MINIMAL DISRUPTION?



Lower ranges
~145,595 t CO2/yr



145,595 – 333,716
t CO2/year



Higher ranges
~333,716 t CO2/yr



ORG:

Financing blue carbon

no single mechanism finances blue carbon on its own



Tools that provide revenue based on verified benefits

ETS

CARBON CREDITS

BIODIVERSITY CREDITS

**REVENUE
GENERATION**

Instruments that provide capital for project start-up, has to be repaid

BLUE BONDS

BLUE LOANS

**UPFRONT
FINANCING**

Instruments that provide capital for project start-up, no repayment

PHILANTHROPY

GRANTS

CROWDFUNDING

**NON-REPAYABLE
FINANCING**

Mechanisms to organise project financing

PUBLIC-PRIVATE PARTNERSHIPS

DEBT-FOR-NATURE SWAPS

**FINANCING
STRUCTURE**

Every instrument is assessed on

efficiency, effectiveness, credibility and verifiability | relevance to blue carbon and BPNS | bottlenecks | strategic implications

Financing roadmap

from pilots to scalable business cases



Ortelius

SHORT TERM

Baseline knowledge
Reduce uncertainty on carbon fluxes
Insights from pilots

SUITABLE FINANCING MECHANISMS

GRANTS

PHILANTHROPY

RESEARCH FUNDING

MEDIUM TERM

Further project development for de-risking investment
Test monetisation pathways
Blended finance to move toward more mature financing and markets

SUITABLE FINANCING MECHANISMS

PILOT FUNDING VIA ETS-RELATED POTS

EARLY BLUE CARBON CREDITS

PROJECT-BASED SUPPORT / OFFSETS

SMALL BLUE LOANS

LONG TERM

Scale proven approaches
Build mature financing and markets
Deliver scalable business cases with less dependence on public or philanthropic support

SUITABLE FINANCING MECHANISMS

BLUE BONDS

BLUE LOANS

ETS INTEGRATION

BLUE CARBON CREDITS

REVENUE-GENERATING ECOSYSTEM MARKETS



BERNARDO – consortium

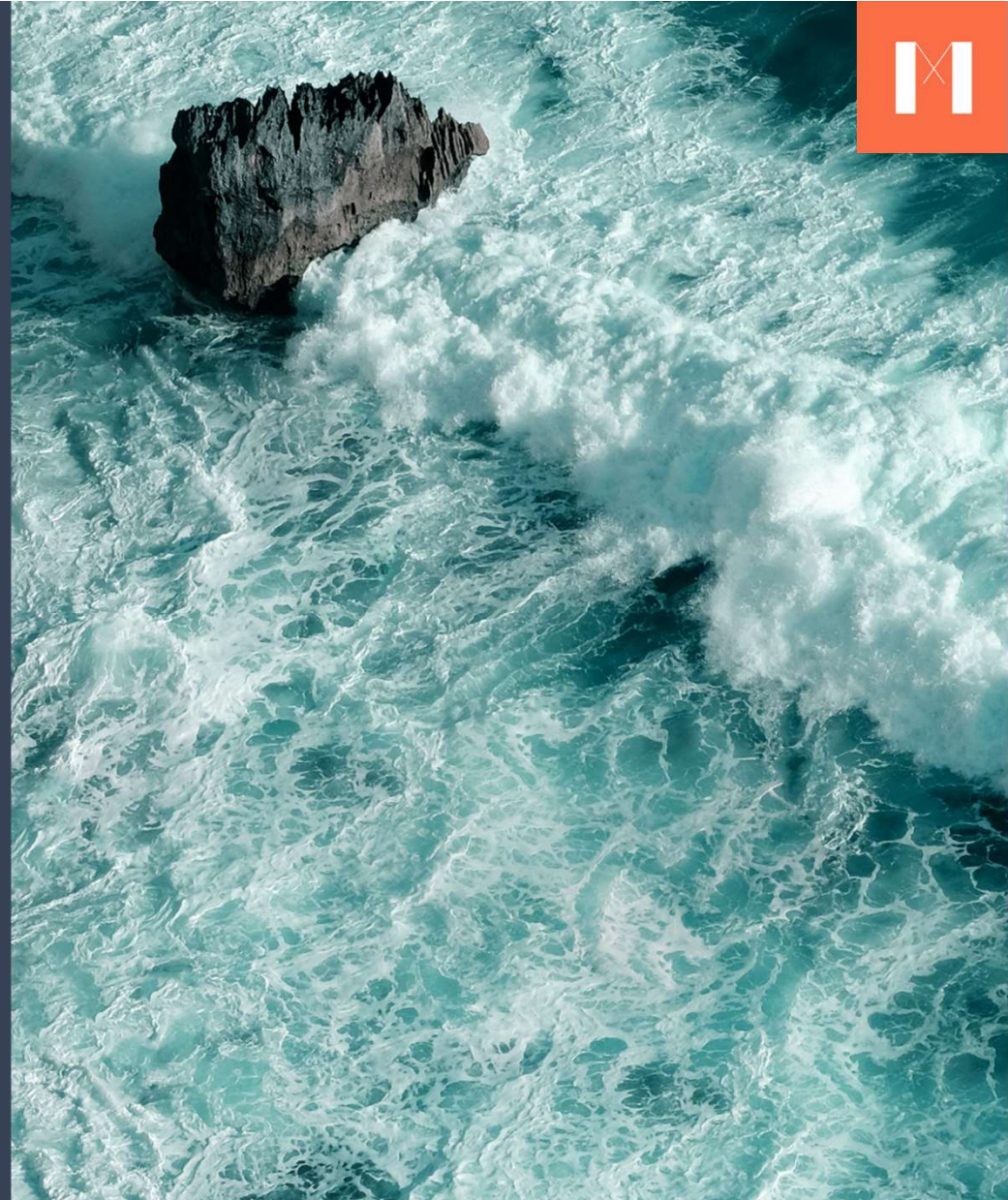


Contact

emile@mantisconsulting.be

+32 476 31 49 02

www.mantisconsulting.be



Duurzaam Kustbeheer

Nature Based Solutions



Sea Ranger Service

Blue Session Duurzaam
Kustbeheer

8 Sep 2026



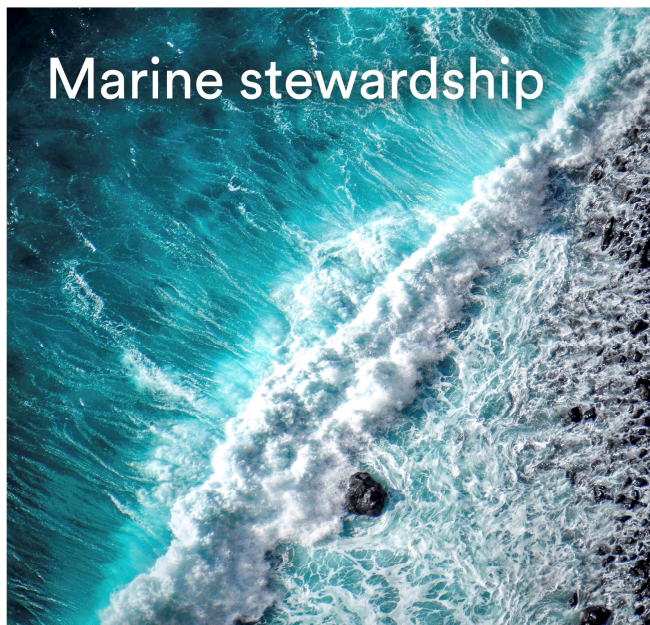
Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)

Our mission

Marine stewardship



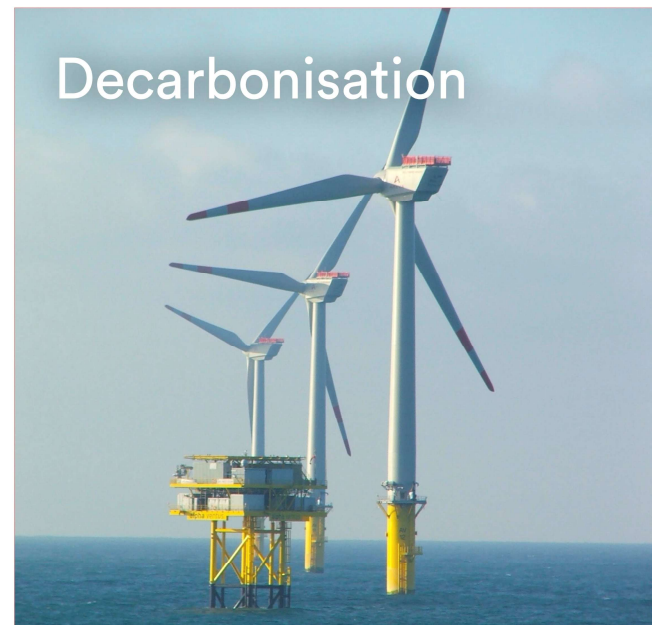
- Seagrass and oyster restoration
- MPA management, research

Social value



- Recruitment from coastal areas
- Training in maritime skills

Decarbonisation



- Coastal community resilience
- Decarbonisation of offshore work



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)

Sea Ranger

- Actively working on ocean assignments
- Training for a maritime career
- Commercial sailing endorsement after one year
- Vocational course in development

*Sea Rangers are young maritime
and ocean restoration ambassadors*



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



- Water quality sampling
- Ecological monitoring
- Hydroponic measurements

CATAPULT
Offshore Renewable Energy



Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



- Bird surveys
- Marine mammal observations
- MPA offshore monitoring
- Site condition assessments

THE CROWN
ESTATE



Inspectie Overheidsinformatie en
Erfgoed
Ministerie van Onderwijs, Cultuur en
Wetenschap



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



- ROV surveys underwater
- UAV aerial surveys
- Landscape mapping

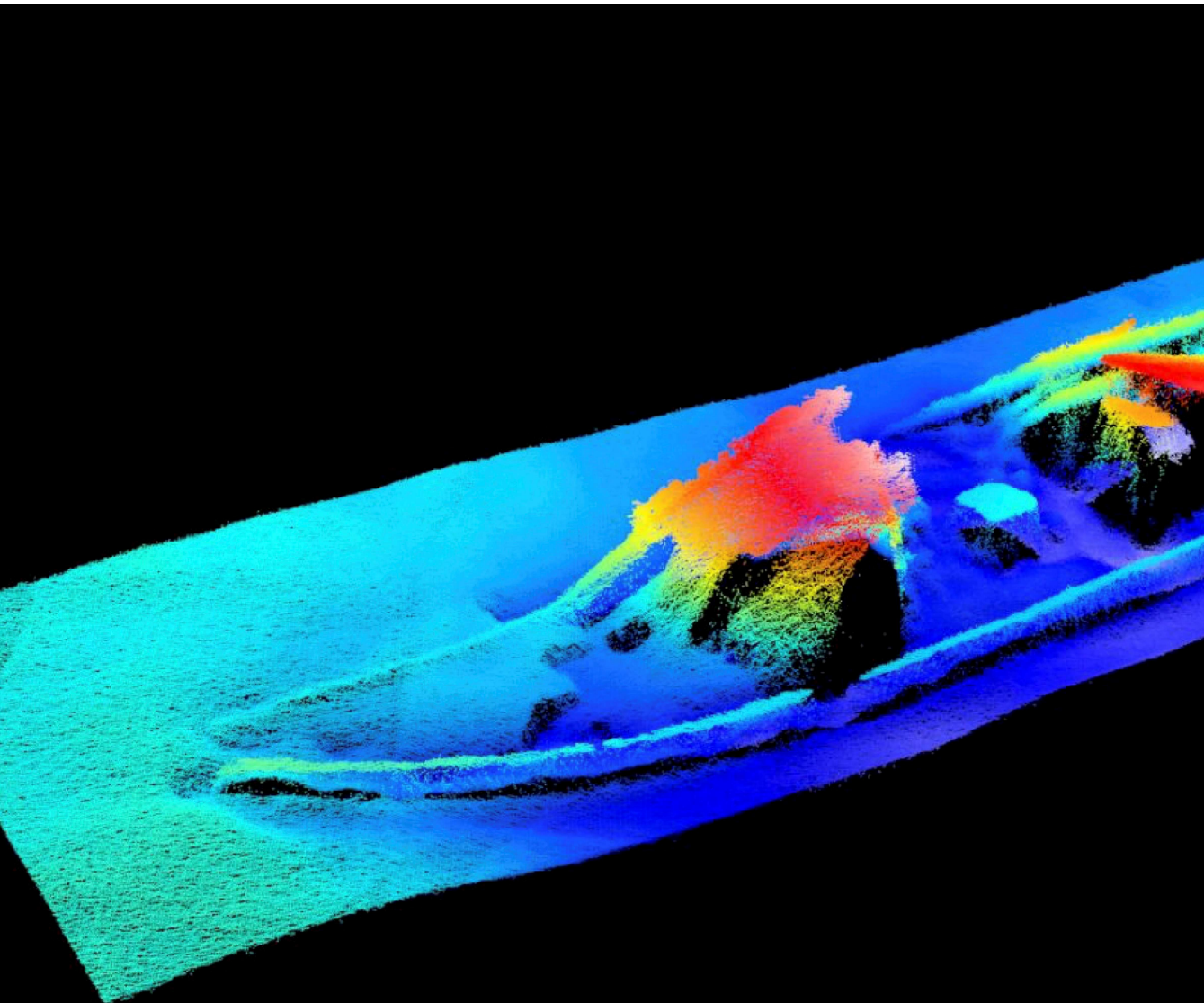
FUGRO



Inspectie Leefomgeving en Transport
Ministerie van Infrastructuur en Waterstaat



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



- Seabed mapping
- Side-scan sonar surveys
- UXO surveys



KONGSBERG



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



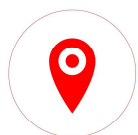


Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)

Seagrass restoration



Three locations in Europe where Sea Rangers actively restore seagrass for NPPE.



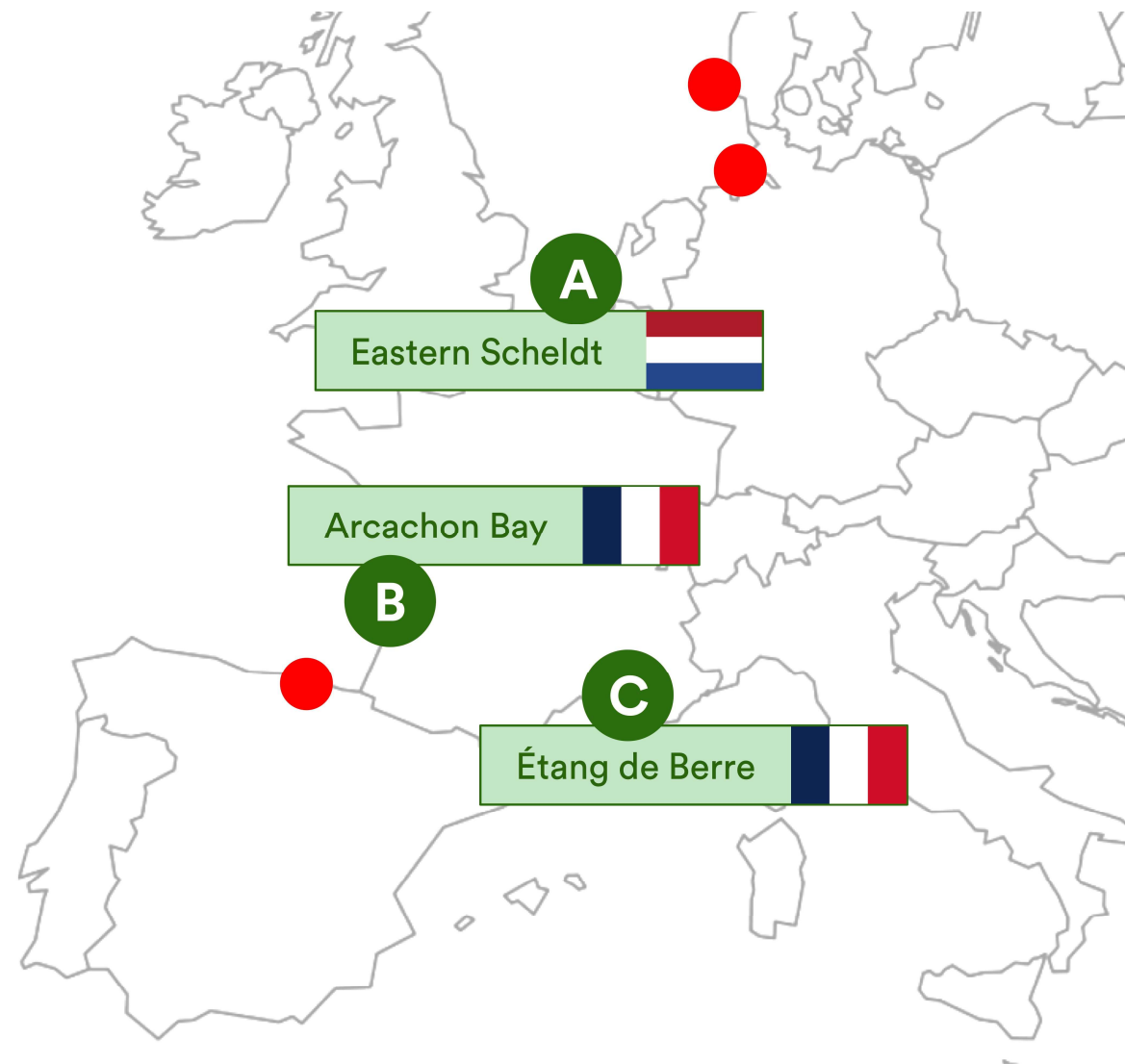
300,000+ shoots planted over a total restoration area of 584 hectares.



Permits for collection, import, export and planting in five countries.



New seagrass nursery in the Eastern Scheldt to increase donor material.



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)

Assignments 2018-2026



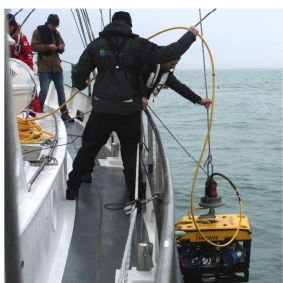
MPA
monitoring



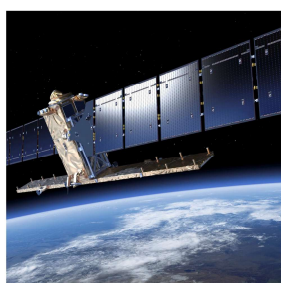
Drone
inspections



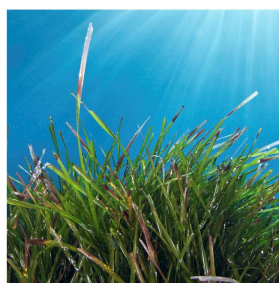
Sampling water
quality



Offshore
surveying



Satellite data
ground-truthing



Coastal
Restoration



Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat



Ministerie van Landbouw,
Natuur en Voedselkwaliteit



Inspectie Leefomgeving en Transport
Ministerie van Infrastructuur en Waterstaat



Inspectie Overheidsinformatie en
Erfgoed
Ministerie van Onderwijs, Cultuur en
Wetenschap



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



THE CROWN
ESTATE

HOUSE OF
LORDS



ABP
ASSOCIATED BRITISH PORTS



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



HET KONINKLIJK HUIS



Port of
Rotterdam



Royal Netherlands Navy



Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Sea Ranger Service / searangers.org / [#GoSeaRangers](https://twitter.com/GoSeaRangers)



Workshop

Shaping the future

- Roadmap validation
- NbS Infra



Timing	Group A ●	Group B ●	Group C ●	Group D ●
14.55	Roadmap validation Philippe – conference room	Roadmap validation Kristien – conference room	NbS Infra Hanne – entrance hall	NbS Infra Marijn – entrance hall
15.35	NbS Infra Hanne – entrance hall	NbS Infra Marijn – entrance hall	Roadmap validation Philippe – conference room	Roadmap validation Kristien – conference room
16.15	Back to plenary	Back to plenary	Back to plenary	Back to plenary



Workshop

Shaping the future

- Plenary feedback

We are Blue Cluster

