



## Key note 'Cooperating on tackling the impacts of climate'

change



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The Netherlands

## Agenda



**15.00 Welcome and introduction**

**15.05 Key note: Cooperating on tackling the impacts of climate change**

**15.30 Project pitches**

**15.50 Break**

**16.00 Round table discussions per project**

**16.30 Wrap up**

**16.50 End of session**

# Climate Change

“..strengthen the global response to climate change by keeping a global temperature rise well below 2 °C..”

- Paris Agreement,  
UNFCCC, 2015





# Climate Change Internationally

“.. a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda..”

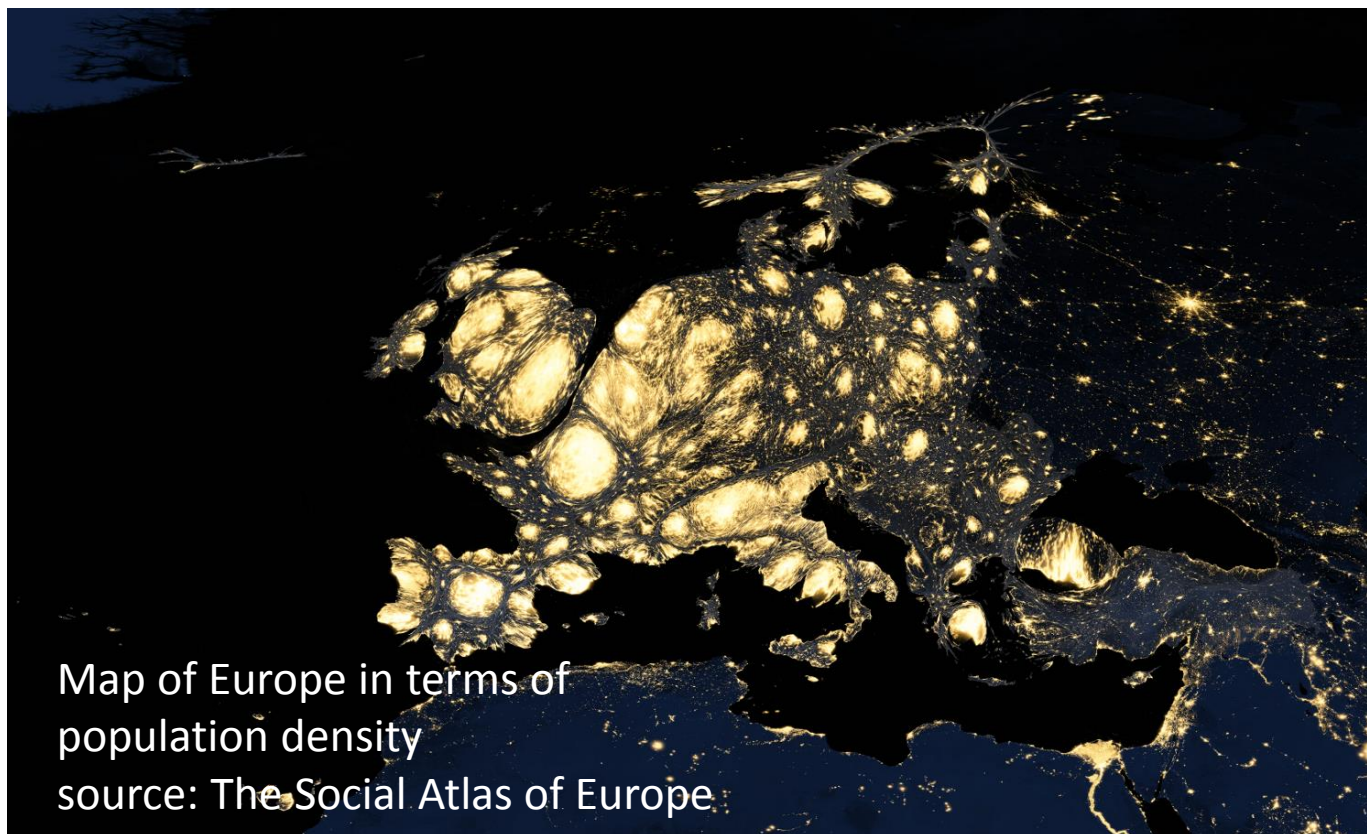
- Sustainable Development Goals,  
UN, 2015



A  
**\$6 billion**  
USD investment  
in disaster risk  
reduction over  
the next **15**  
years would  
avoid losses  
of **\$360**  
billion USD

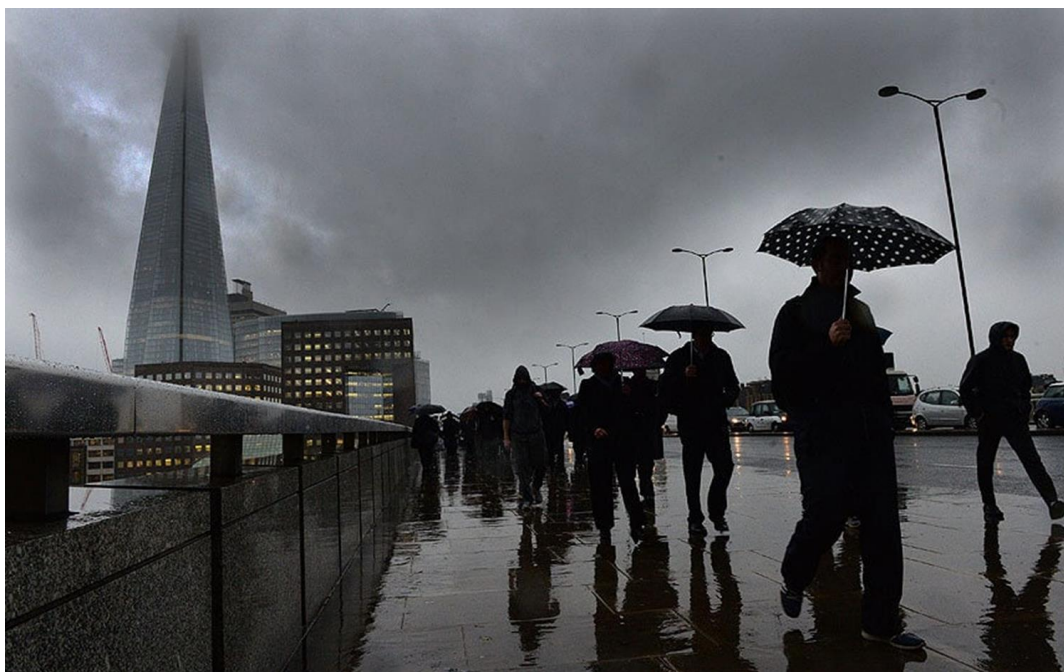


# Impact of Climate Change



## Theme 'Sustainable North Sea Region'

# Climate change resiliency



**Subject:**  
Climate resilient cities





## **Subject:**

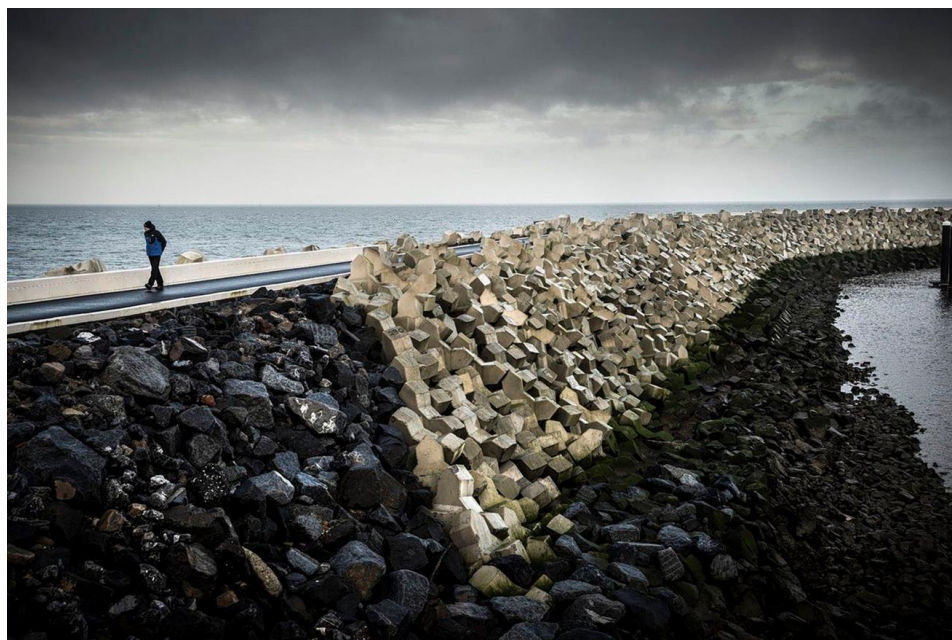
Using the subsurface to  
improve climate  
resiliency



**Subject:**  
Using the forces  
present in our natural  
systems



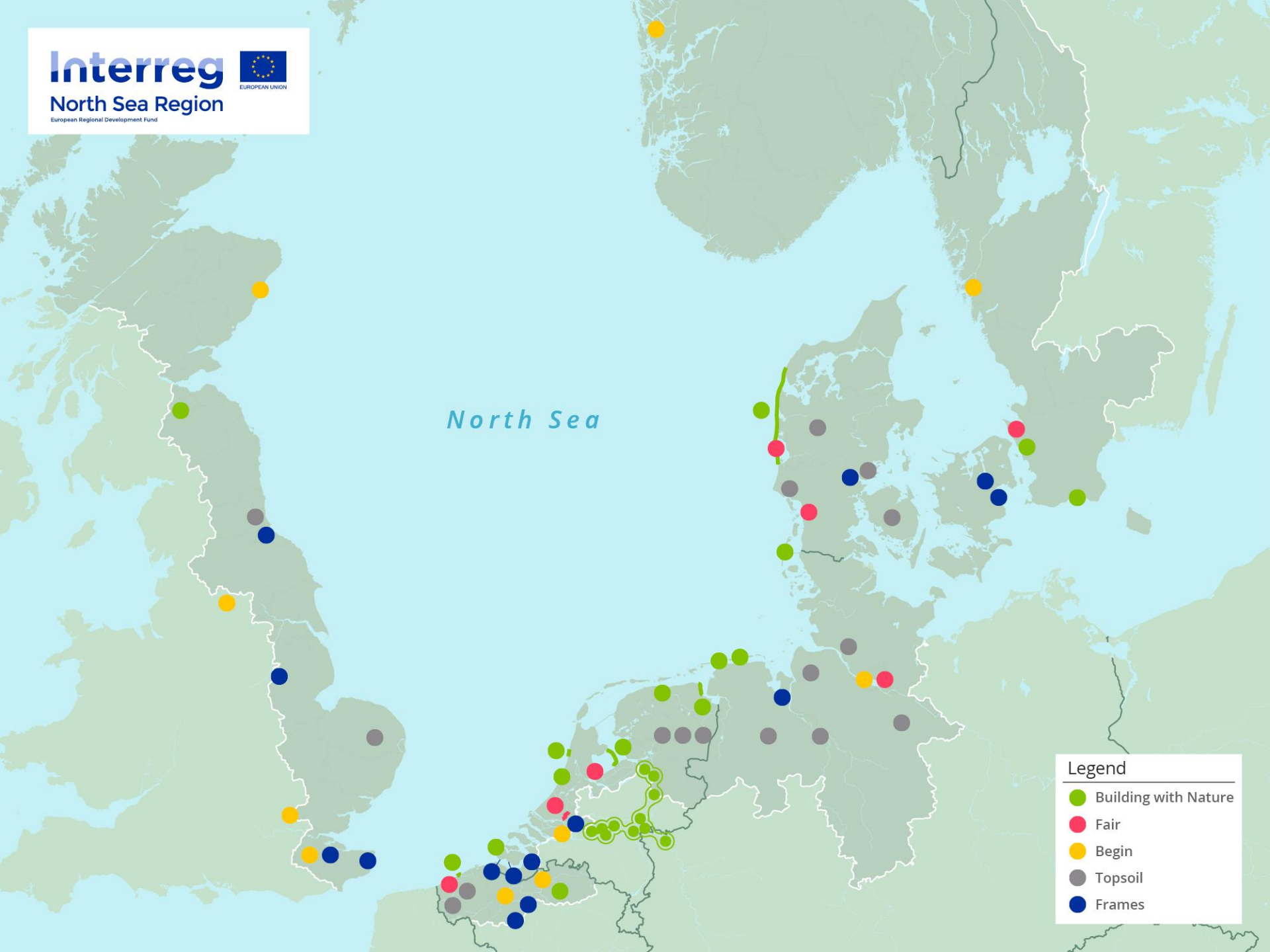
**Subject:**  
Reducing the impact of  
flooding



## **Subject:**

Investment planning,  
adaptive designing and  
mainstreaming



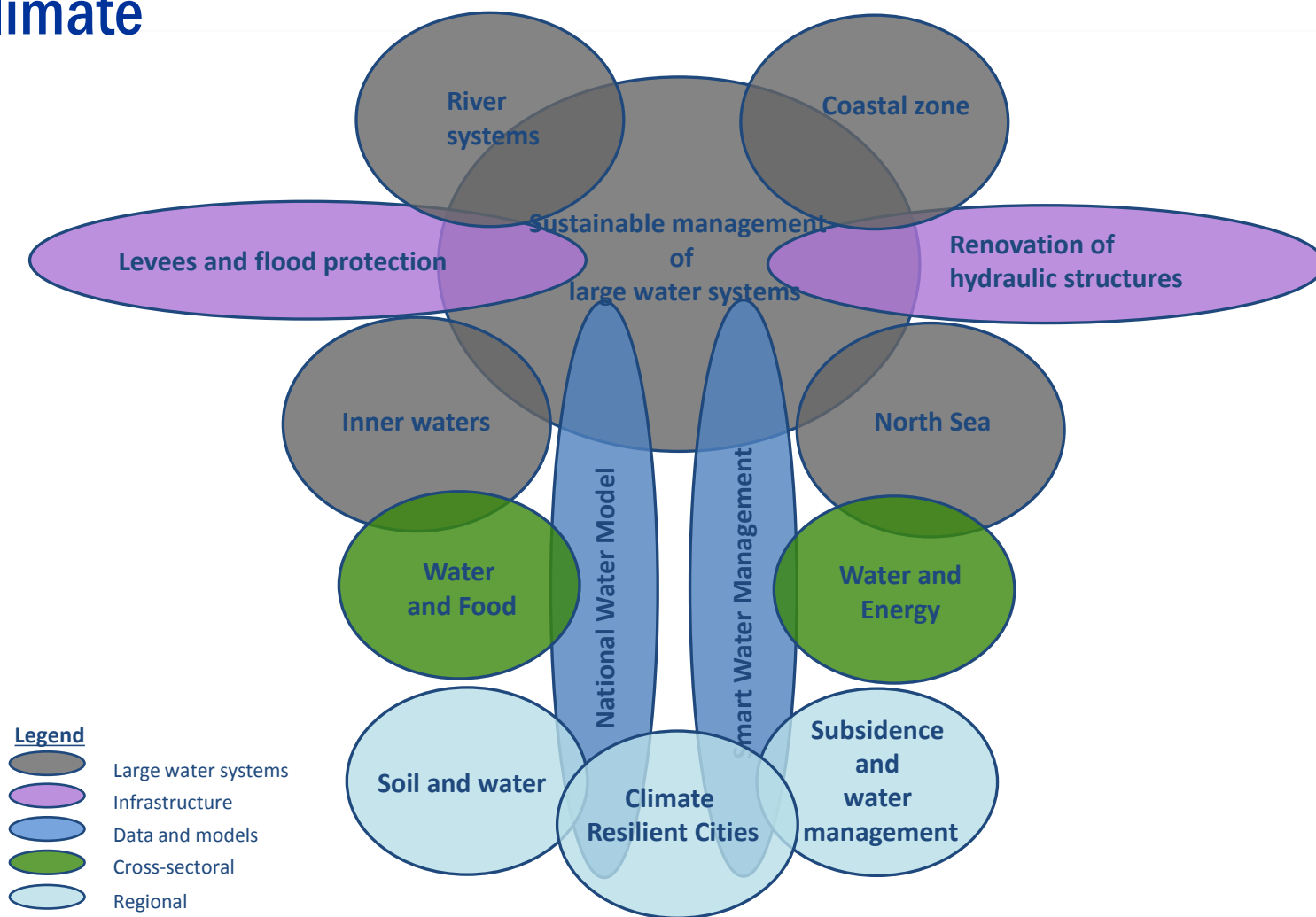


*North Sea*

**Legend**

- Building with Nature
- Fair
- Begin
- Topsoil
- Frames

# National research and innovation programme on Water and Climate





# International perspective

Levees and flood protection

River  
systems

Coastal zone

**Interreg**  
North Sea Region  
**Building with Nature**  
European Regional Development Fund

Renovation of  
hydraulic structures

Inner waters

North Sea

Water  
and Food

Water and  
Energy

National Water Model

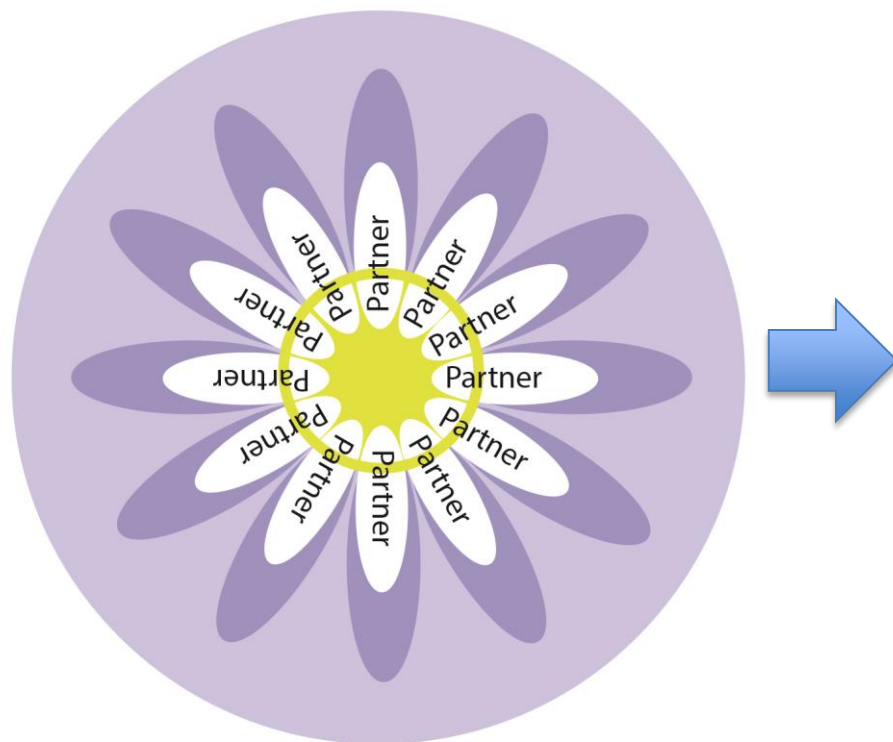
Smart Water Management

Soil and water

Subsidence  
and  
water  
management

Climate  
Resilient Cities

## Interaction between projects enhances impact





# Pathway to impact

## ***Output***

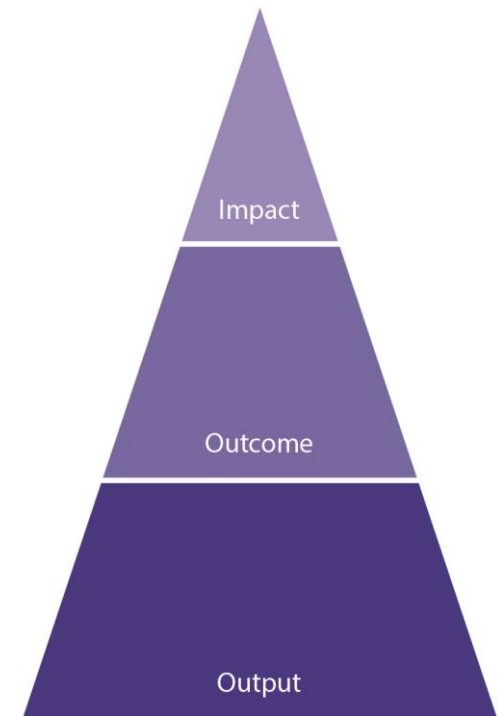
The direct immediate term results associated with a project (often the deliverables of the project). Outputs are measurable and readily determined.

## ***Outcome***

The medium term consequences of a project. An outcome is a change that occurred because of the outputs.

## ***Impact***

The long-term or indirect effects of the outcomes. Ideally, impacts aligns with the strategic objectives of an organization.





# Interreg

## North Sea Region

### BEGIN

European Regional Development Fund



## Expected **outcome** of BEGIN



1. BEGIN will create a replicable approach for implementing blue-green infrastructure and maintaining eco-system services in cities.
2. BGI will be established as the dominant strategy for urban climate adaptation, based on validated business models with active citizens' contributions.



## Expected output of BEGIN

1. Demonstration of BGI in 10 leading NSR cities (NL, B, D, S, N, Eng, Sco) with proven business cases that will guide capital investment of >€1Bn.
2. Collated toolbox that guides BGI implementation and helps involve citizens and business as investors.
3. Validation of a unique transnational city-2-city learning approach (from NSR CAMINO). It will be up-scaled via UN and Mayors Adapt city networks (>1600).





# Expected **impact** of BEGIN

1. The impact will be to overcome the gridlock in climate change, due to economic circumstances.





# Interreg

## North Sea Region

### FRAMES

European Regional Development Fund



## Flood Resilient Areas by Multilayer Safety

**Total budget € 6.924.911,  
ERDF contribution € 3.462.455**

**01 October 2016 – 31 January 2020**

**General objective/impact: reduce the impact of floods from sea, river and extreme rainfall to keep the North Sea regions economically and environmentally sustainable.**



## Multilayer Safety Approach:

- Integrated flood risk management: combined actions for prevention, spatial adaptation, crisis response and recovery
- No one region or authority can do these actions alone → mobilise lokal and social stakeholders

## Outcome - change

- Flood resilient areas: improved infrastructure and spatial planning measures
- Food resilient communities: better prepared communities and social stakeholders
- Flood resilient authorities: reduced recovery times and increased response capacity



## Output - deliverables (selection from WP's)

Laymen reports, pilot studies, communication tools

Decision Support System

Adaptive pathways

Policy recommendations for authorities on governance of MLS

Toolkit for improved spatial targeting of catchment based flood risk management



# Interreg



EUROPEAN UNION

## North Sea Region

## Building with Nature

European Regional Development Fund



**Total budget € 6.800.040**

**ERDF contribution € 3.400.000**

**10 November 2015 – 30 June 2020**

**Building with Nature philosophy:**

**The power of nature can be used to help us achieve our goals.  
Knowing the system and being able to work with the forces present  
will yield an easier adaptable, better sustainable and multi-beneficial  
situation whilst reducing costs, optimizing benefits and involving  
stakeholders.**



## General objective/impact

Natural forces present in the system are widely used to prevent the North Sea Region and beyond from flooding. Adaptability and thus climate change resilience are herewith increased

## Outcome – change

Practitioners and policy makers are aware of the Building with Nature approach and its multiple advantages and value and know how to use it as a worthy alternative to traditional techniques.

## Output - deliverables

On the basis of our living laboratories, we provide a technical, economic and socio-political evidence base for the use of Building with Nature techniques in the prevention against flooding in coastal and catchment systems.

We will disseminate the Building with Nature philosophy in the North Sea Region and beyond amongst policy makers and practitioners





# Interreg

## North Sea Region




### TOPSOIL

European Regional Development Fund



# TOPSOIL

Top soil and water - The climate challenge in the near subsurface

-  Infrastructure is aging
-  Performance is uncertain
-  Money is limited

+ Afbeelding





# Interreg

## North Sea Region

**FAIR**

European Regional Development Fund



**Total budget € 4.593.750**

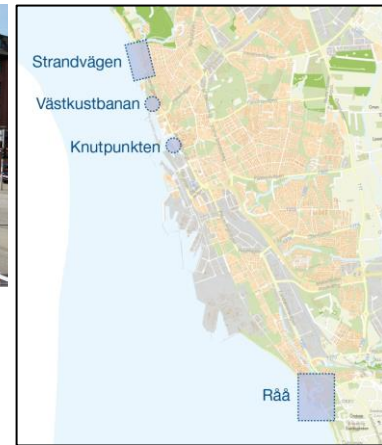
**ERDF contribution € 2.296.875**

**Period:**

**10 November 2015 – 30 June 2020**

## **Objective/Impact**

**Reduce flood risk across the NSR by improving investment planning approaches and climate change adaptation solutions.**



Despite the heterogeneity of the NSR, asset managers face common challenges:

- + **Where to act:** Which asset would yield the greatest benefit (and reduce risk most)?
- + **When to act:** Is action required now, or can investment be postponed?
- + **How to act:** Should we collect more data or intervene? If we intervene what approach is best?

## Outcome

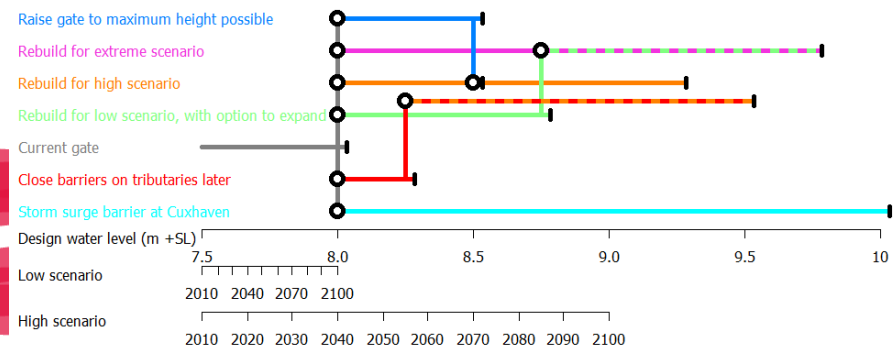
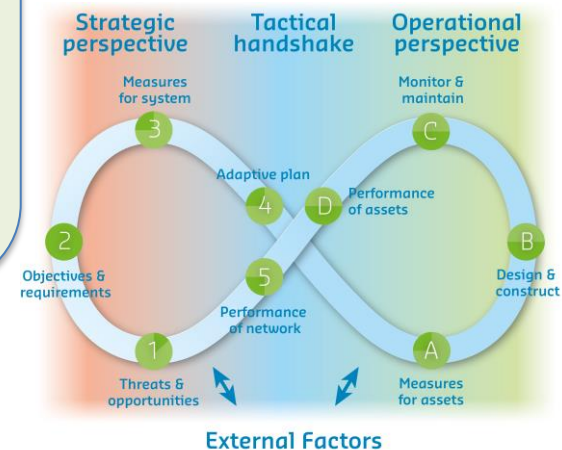
- + **Do more for less** – through better targeting of investment
- + **Encourage multi functionality** – and discourage mono-functionality
- + **Extend asset life** – through smarter maintenance and renovation



## Output - deliverables

In FAIR asset owners and science partners work together actively:  
Learn from each other, get a better understanding of the available tools and techniques and for the asset owner get access to the latest approaches and understand their applicability in their setting.

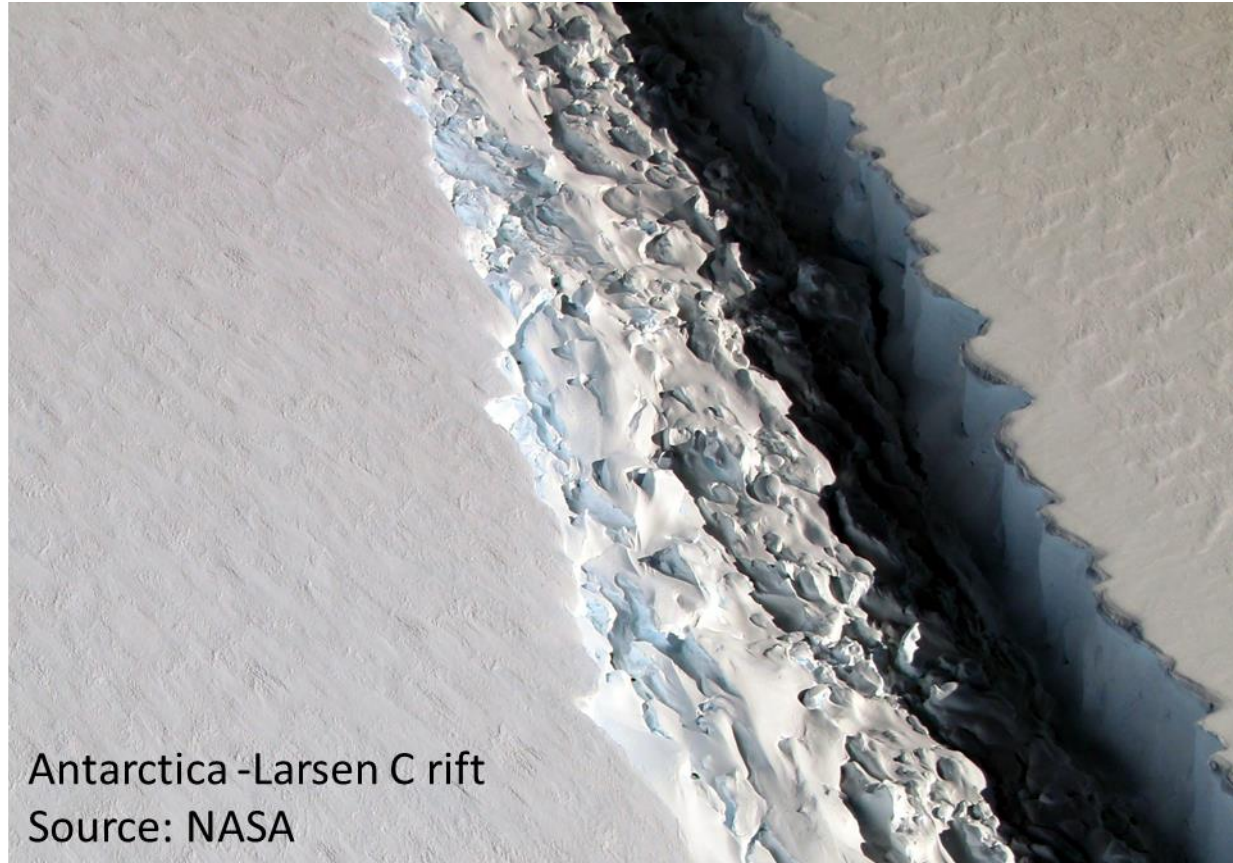
- + Guidance report on investment planning and assetmanagement
- + Guidance report on adaptive designing and mainstreaming



# Round table discussions



# Wrap up



**Thank You**  
**Be aware, inspire and network!**

