

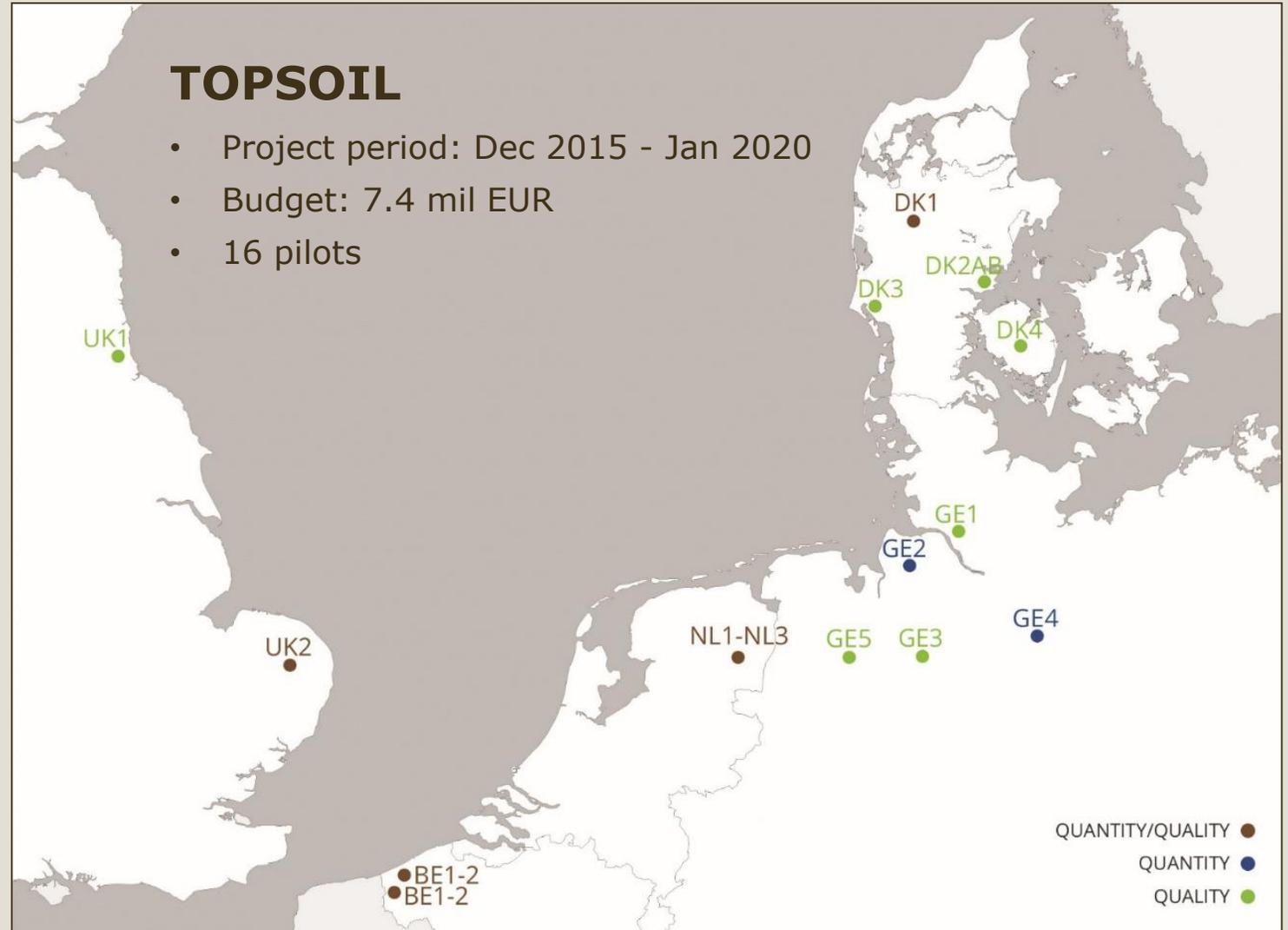
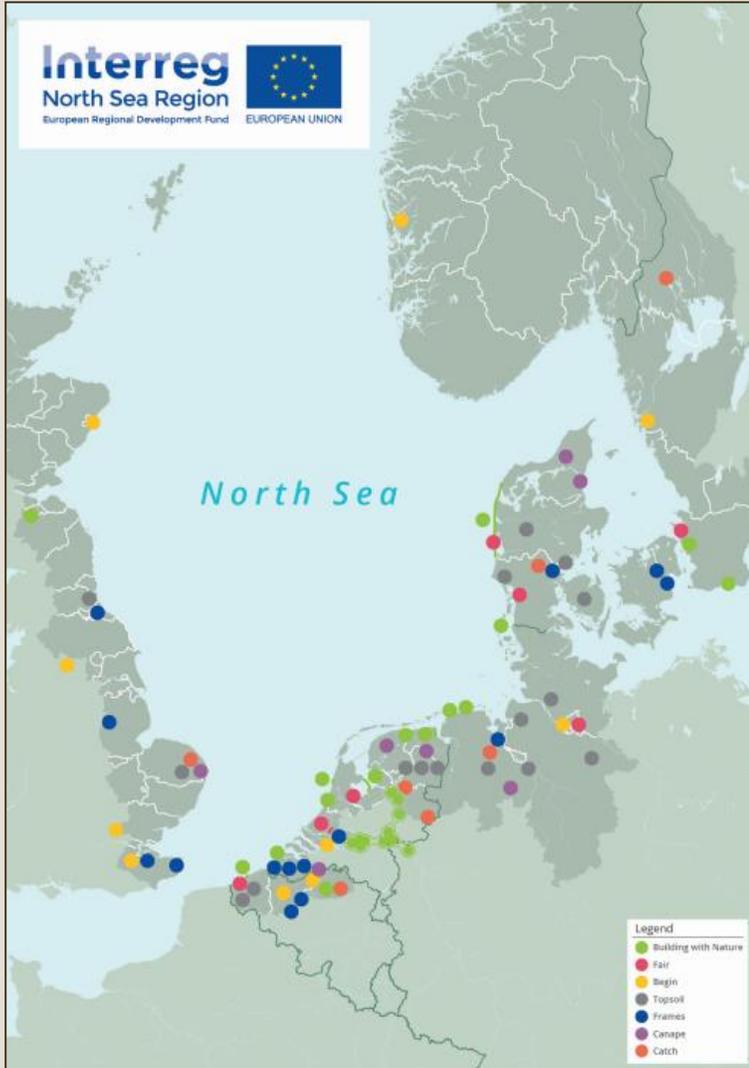
**TOPSOIL**  
-  
**Knowledge & Courage to adapt to climate change**

**Flemming Jørgensen**, Central Denmark Region

TOPSOIL Policy Day, 21 March 2019

# TOPSOIL

One of 7 Interreg NSR climate adaptation projects



# The partnership

## 24 partners

- National, regional and local authorities
- Research institutions
- Water and boards utilities
- NGO's



### Belgium and The Netherlands

- Flanders Environment Agency, VMM
- Hunze en Aa's regional water authority, WBHA
- Province of Drenthe, PD
- Waterschap Noorderzijlvest, WB Noorderzijlvest

### Germany

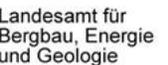
- Umbrella waterboard for Irrigation in the county of Uelzen, UWIU
- Chamber of Agriculture Lower Saxony, CALS
- Federal Institute for Geosciences and Natural Resources, BGR
- University Bremen Geological Survey of Bremen, GDfB
- State Authority for Mining, Energy and Geology, LBEG
- Leibniz Institute for Applied Geophysics, LIAG
- Waterboard of Oldenburg, OOWV
- State Agency for Agriculture, Environment and rural Areas Schleswig- Holstein, LLUR

### UK

- The Rivers Trust
- Wear Rivers Trust
- Norfolk Rivers Trust
- Essex & Suffolk Rivers Trust
- Northumbrian Water Limited
- Durham University

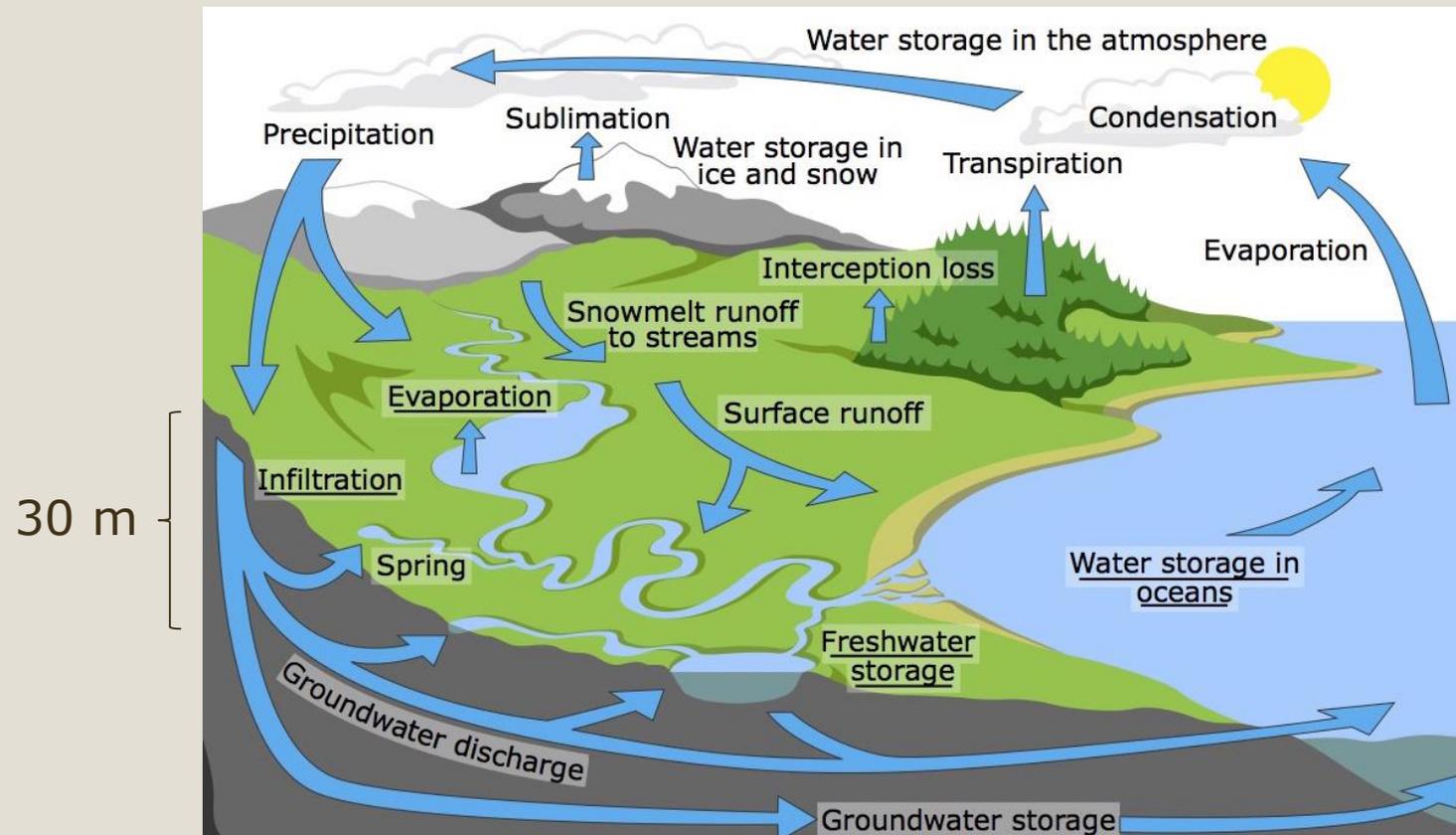
### Denmark

- Herning Kommune
- Horsens Kommune
- Region Syddanmark
- GEUS
- Aarhus Universitet
- Region Midtjylland



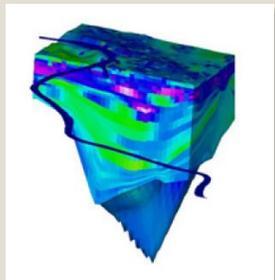
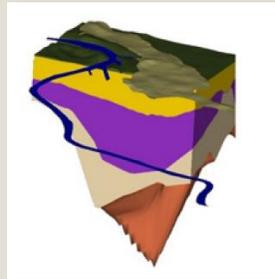
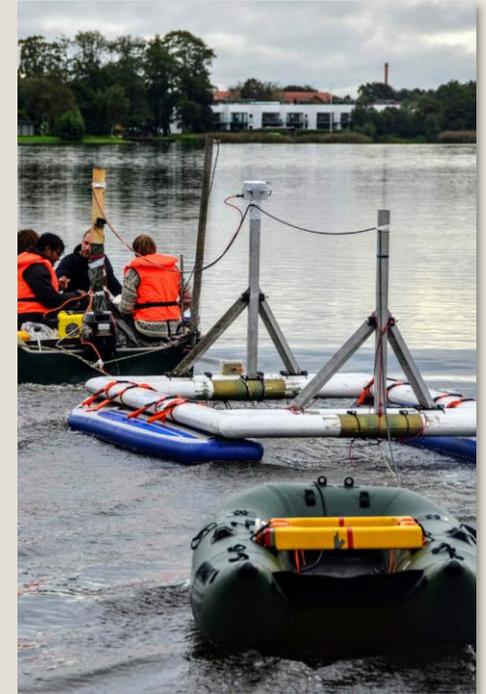
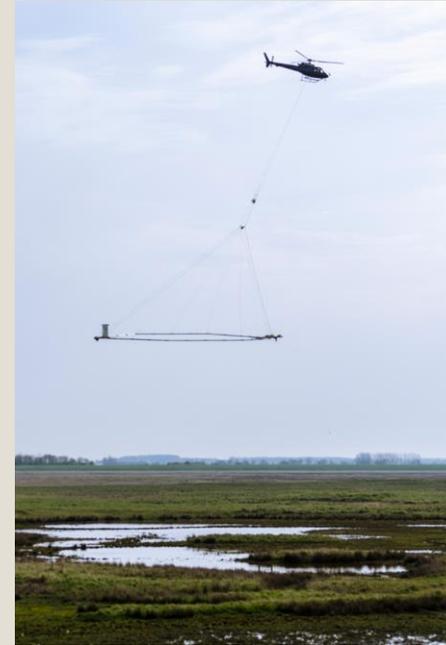
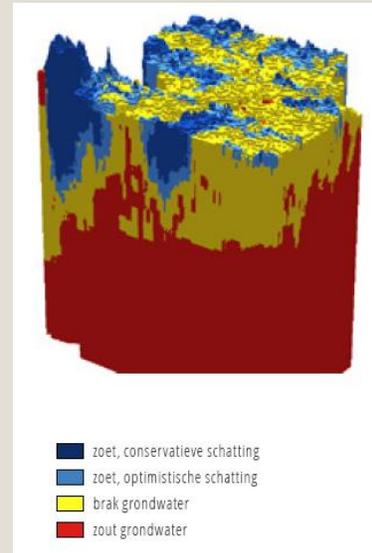
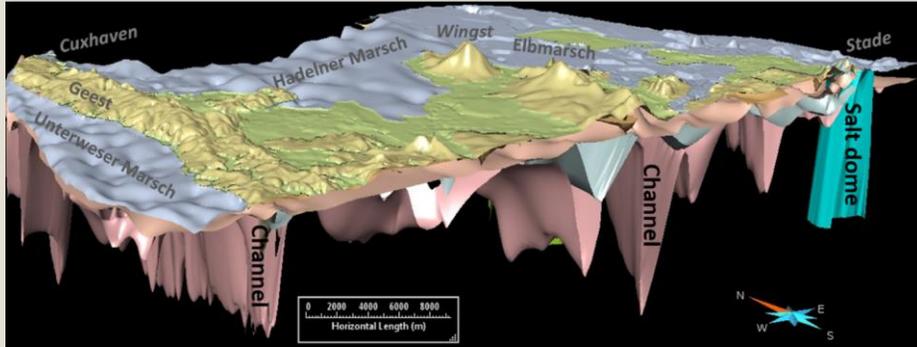
# Project objectives

- Effects of climate change in the topsoil
- Climate change adaptation towards groundwater related challenges



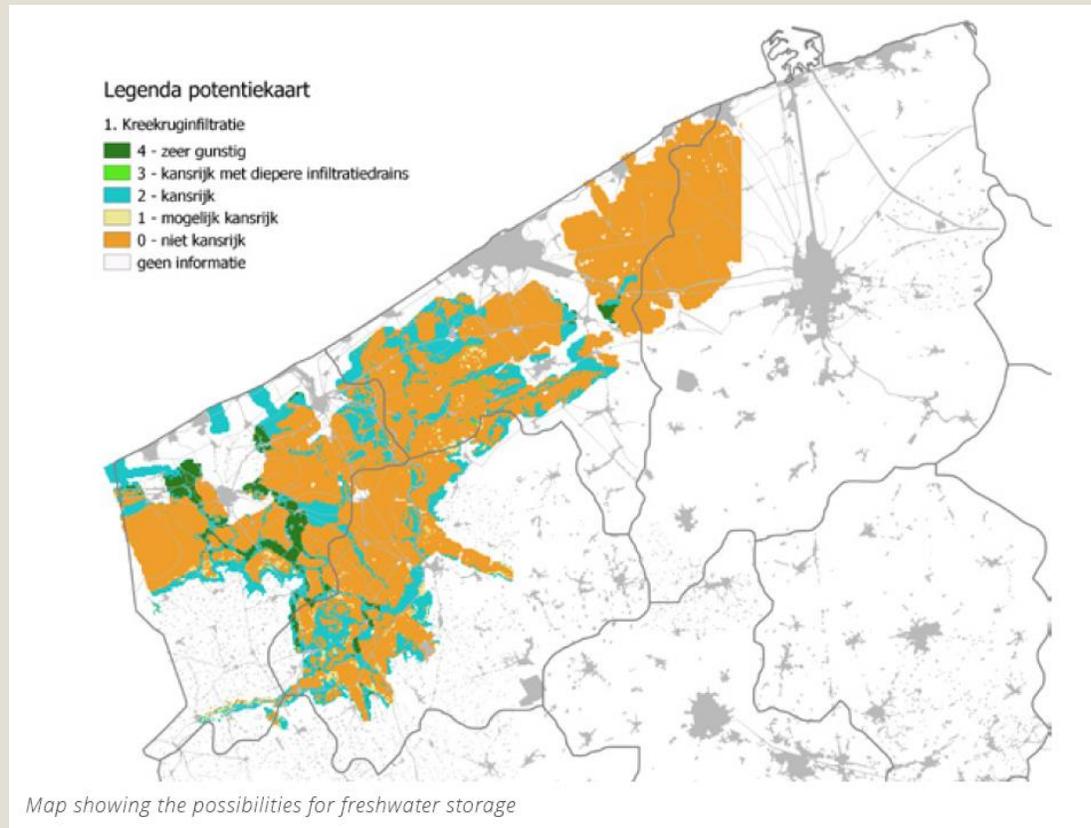
# Project objectives

- Development of tools to map and model the topsoil layers



# Project objectives

- Testing and implementing solutions on field scale in our pilots



# Project objectives

- Adding value from transnational and cross sectoral cooperation



# Five challenges:



## Five challenges

TOPSOIL adresses water related topics concentrated around five shared challenges.

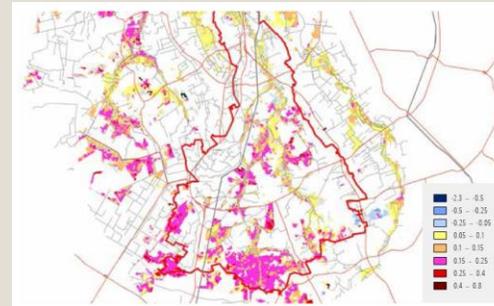
Pilot	Challenge				
	Flooding	Satwater intrusion	Groundwater buffer	Soil conditions	Breakdown capacity
BE1		✓	✓	✓	✓
BE2	✓	✓	✓	✓	✓
DK1	✓		✓	✓	✓
DK2A	✓			✓	✓
DK2B					✓
DK3			✓	✓	✓
DK4	✓	✓	✓		✓
GE1	✓	✓	✓		
GE2		✓	✓	✓	
GE3	✓	✓			
GE4			✓		
GE5				✓	✓
NL1A		✓	✓	✓	
NL1B				✓	✓
NL2				✓	✓
NL3	✓	✓	✓	✓	
UK1	✓			✓	
UK2	✓	✓	✓	✓	✓

# Project workflow

## WP 4:



## WP 5:



## WP 6:



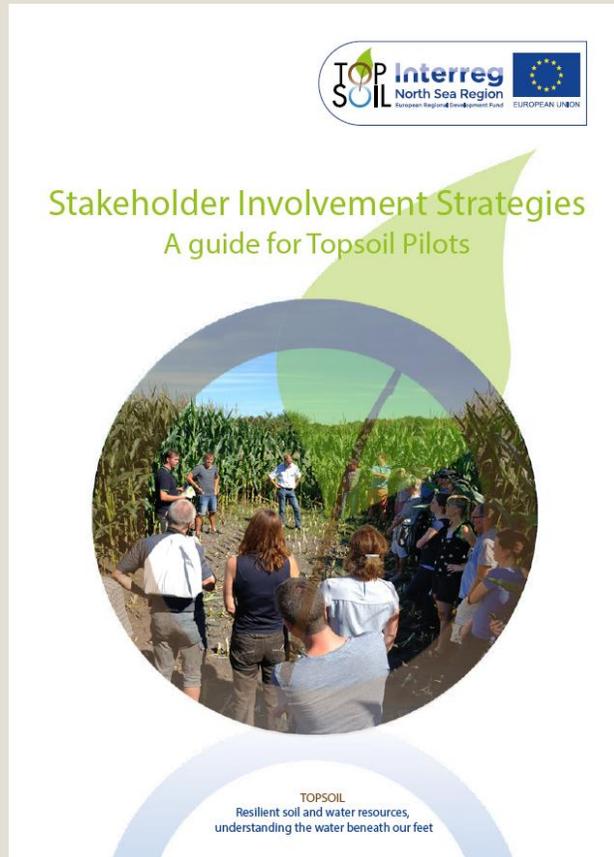
## WP 7:

New management plans for all pilots

WP 1  
Project Management  
CENTRAL DENMARK REGION

WP 2  
Communication Activities  
FLANDERS ENVIRONMENT AGENCY

## WP 3:



# TOPSOIL



## A couple of main messages from TOPSOIL:

- Transboundary cooperation across sectors is important to make things happen. It is about knowledge exchange and joint development - from science to practical management.
- Collection of data and construction of models is needed to take proper measures and to adapt to climate change. This would be a valuable investment for our societies.

# TOPSOIL

## Status and preliminary results:



### Topsoil

Resilient soil and water resources,  
understanding the water beneath your feet





**Thank you!**