



midt
Central Denmark Region



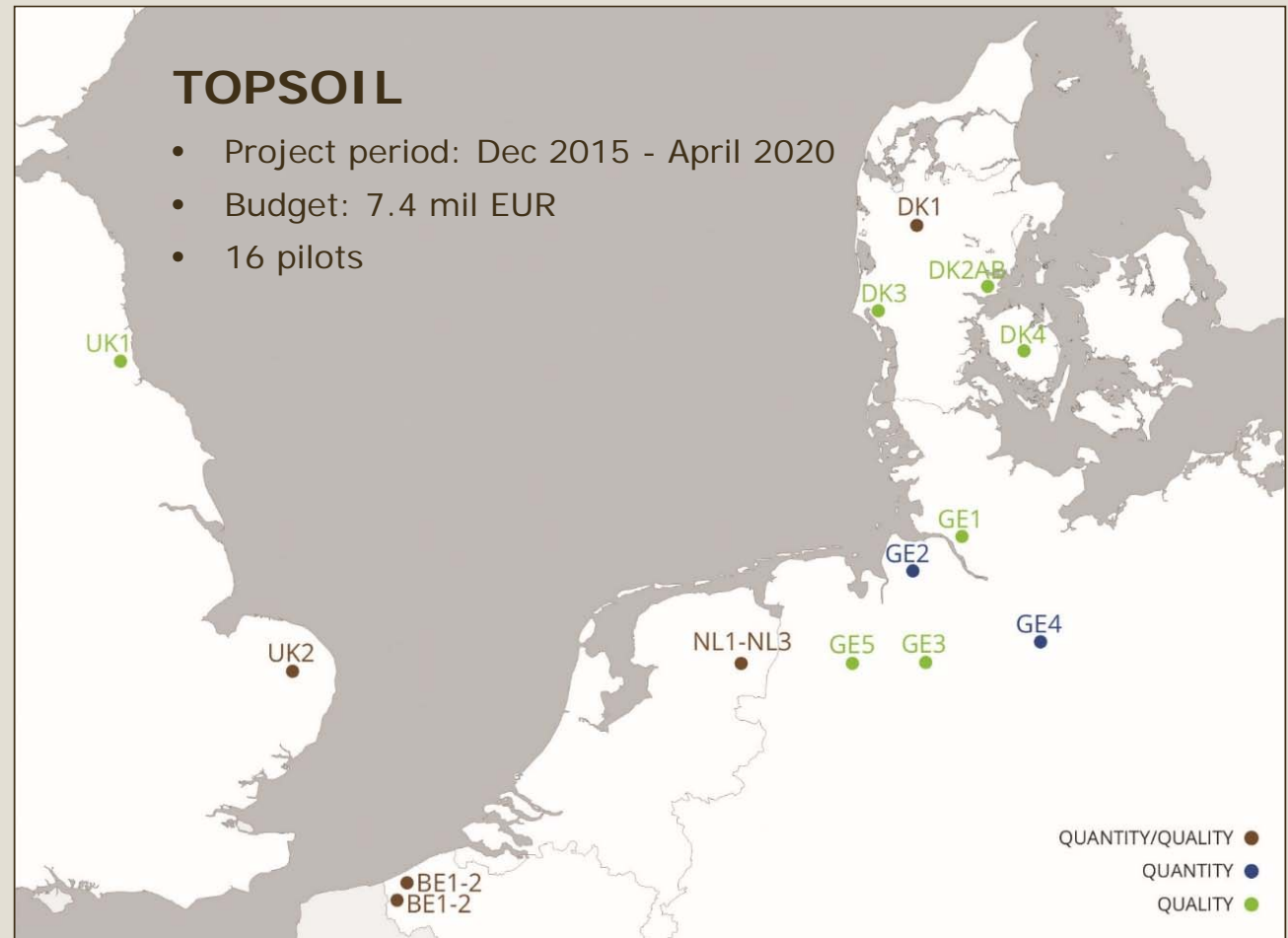
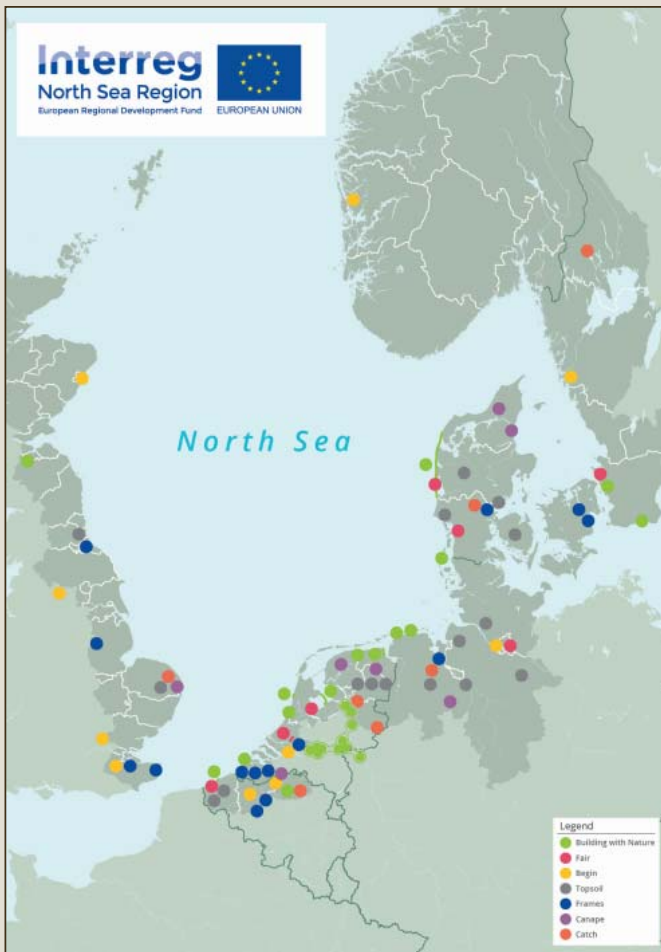
Introduction to the Interreg North Sea Region TOPSOIL project

Flemming Jørgensen, Central Denmark Region

TOPSOIL End Conference, 23 October 2019

TOPSOIL

One of 7 Interreg NSR climate adaptation projects



The partnership

24 partners

- National, regional and local authorities
- Research institutions
- Water boards and 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



UK



Waterschap NOORDERZIJVEST



Dachverband
Feldberechnung
Uelzen



Landesamt für
Bergbau, Energie
und Geologie

provincie Drenthe



Landesamt für Landwirtschaft,
Umwelt und ländliche Räume
Schleswig-Holstein



FLANDERS
ENVIRONMENT AGENCY

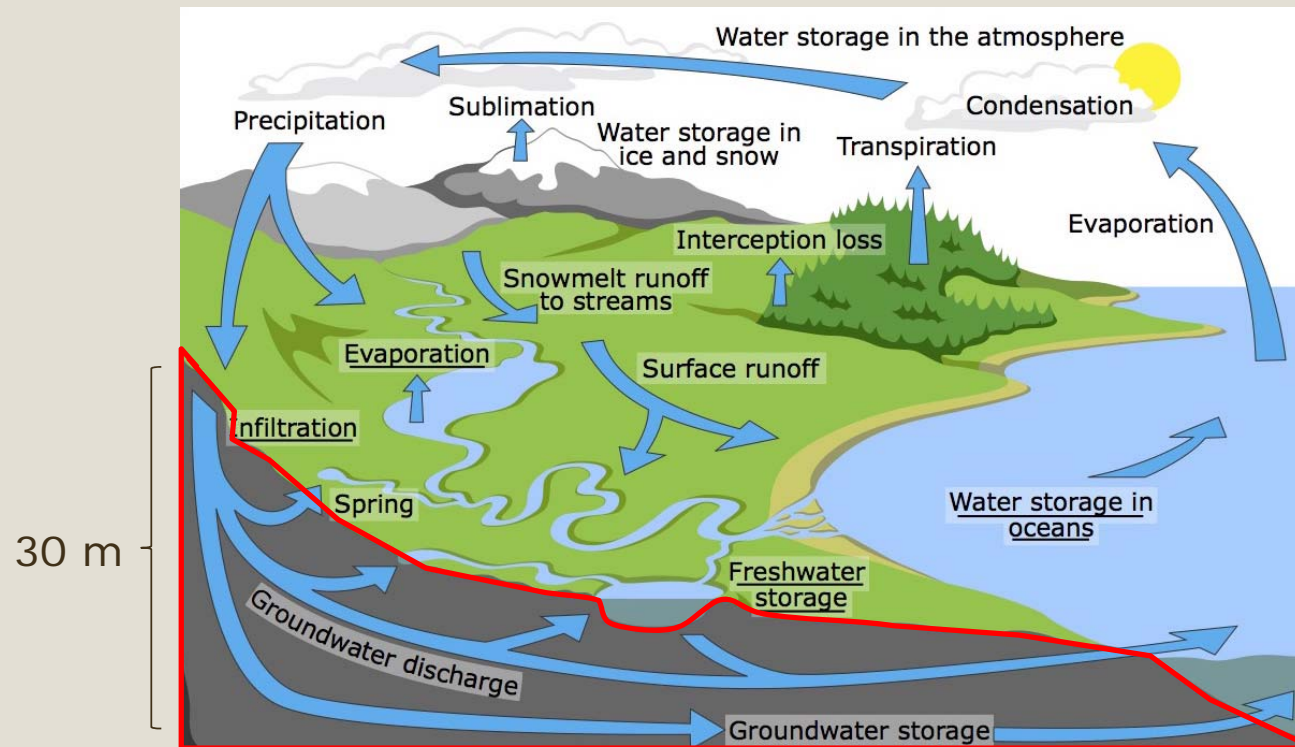


Flanders
State of the Art

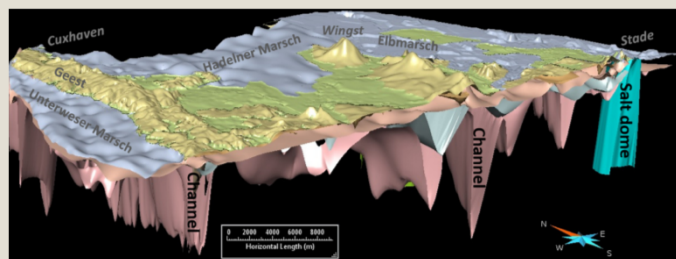
Project objectives



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

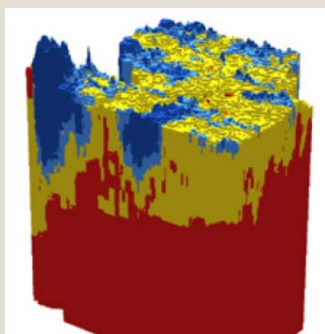


Development of tools to map and model the topsoil layers



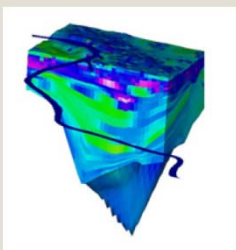
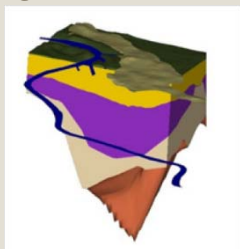
GE2

BE 1



- zoet, conservatieve schatting
- zoet, optimistische schatting
- brak grondwater
- zout grondwater

GE3



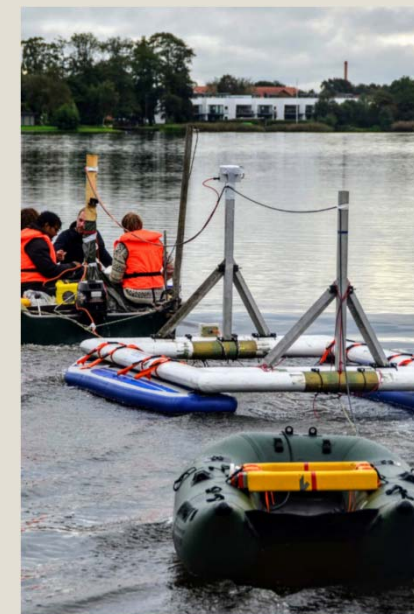
GE1



NL3



DK1



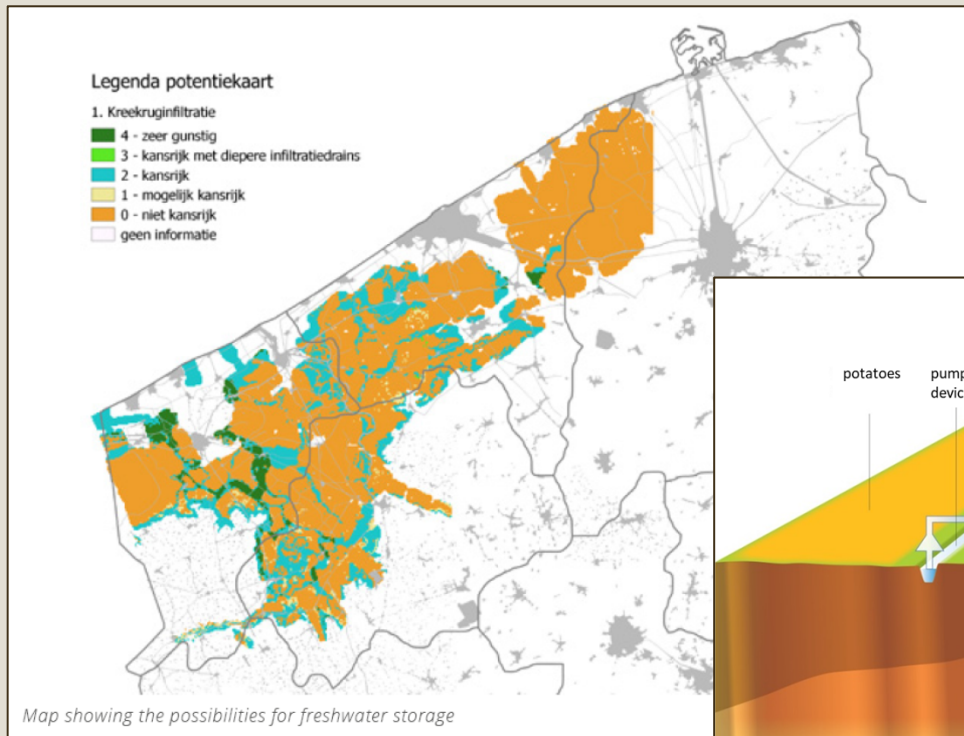
DK2A



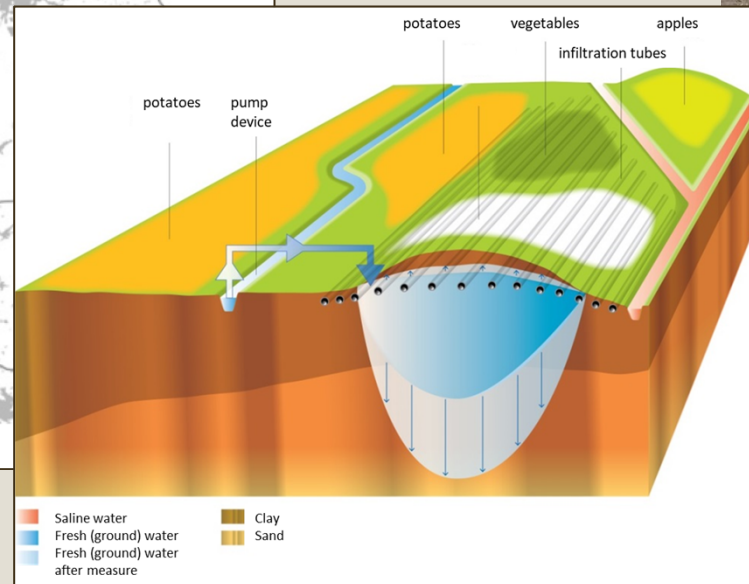
Testing and implementing solutions on field scale in our pilots



BE2



UK2



Adding value from transnational and cross sectoral cooperation



Five challenges:



Five challenges

TOPSOIL addresses water related topics concentrated around five shared challenges.

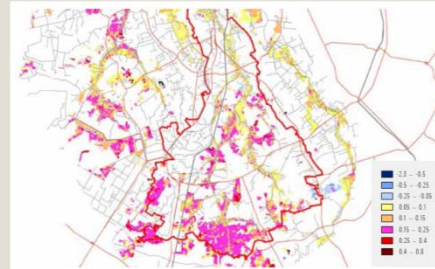
Pilot	Challenge				
	Flooding	Saltwater intrusion	Groundwater buffer	Soil conditions	Breakdown capacity
BE1		✓	✓	✓	✓
BE2	✓	✓	✓	✓	✓
DK1	✓		✓	✓	✓
DK2A	✓			✓	✓
DK2B					✓
DK3			✓	✓	✓
DK4	✓	✓	✓		✓
GE1	✓	✓	✓		
GE2		✓	✓	✓	
GE3	✓	✓			
GE4			✓		
GE5				✓	✓
NL1A		✓	✓	✓	
NL1B				✓	✓
NL2				✓	✓
NL3	✓	✓	✓	✓	
UK1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

Project workflow

WP 4:



WP 5:



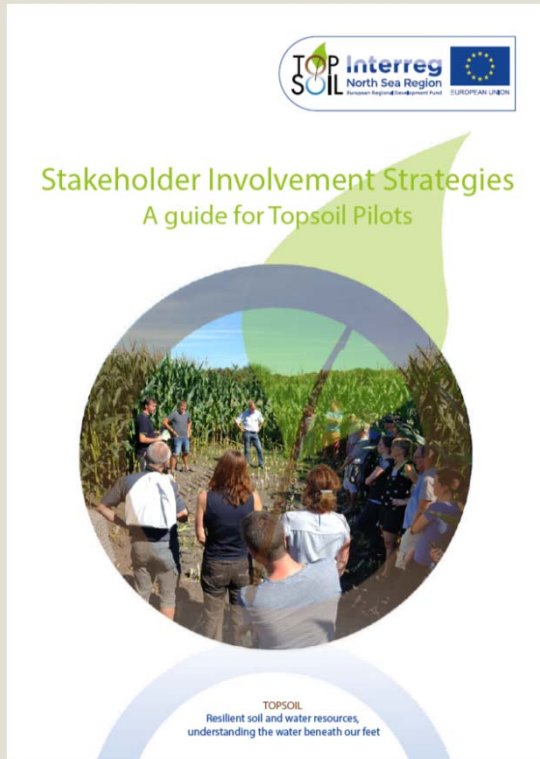
WP 6:



WP 7:

New management plans for all pilots

WP 3:



TOP SOIL Work Packages

WP 1
Project Management
CENTRAL DENMARK REGION

WP 2
Communication Activities
FLANDERS ENVIRONMENT AGENCY

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 is a valuable investment for our societies.
- We experience a growing challenge with seasonal imbalance in GW availability - attention is needed
- Specific messages in the afternoon



Thank you!

- and enjoy the following talks!