### Interreg European UNION North-West Europe SURICATES

The **SURICATES** project is a research initiative funded by the European Union regional funds (INTERREG NWE), aimed <sup>500 km</sup> Eligible transnational at increasing the reuse of

dredged sediments.

It addresses:



# **European policy on Circular Economy EU Waste strategy**

#### Sustainable water transport

Dredged sediments are one of the biggest potential waste flows, according to regulations. Dredged sediments over 200 Mm3/y (80 Mt dry weight)

Current practice: relocation at sea (marine sediments), on land disposal (inland waterways) Sediments are part of our potential mineral resources for civil engineering (but also of our environment).

> Sediments are eligible to circular economy thinking (SedNet, 2019)



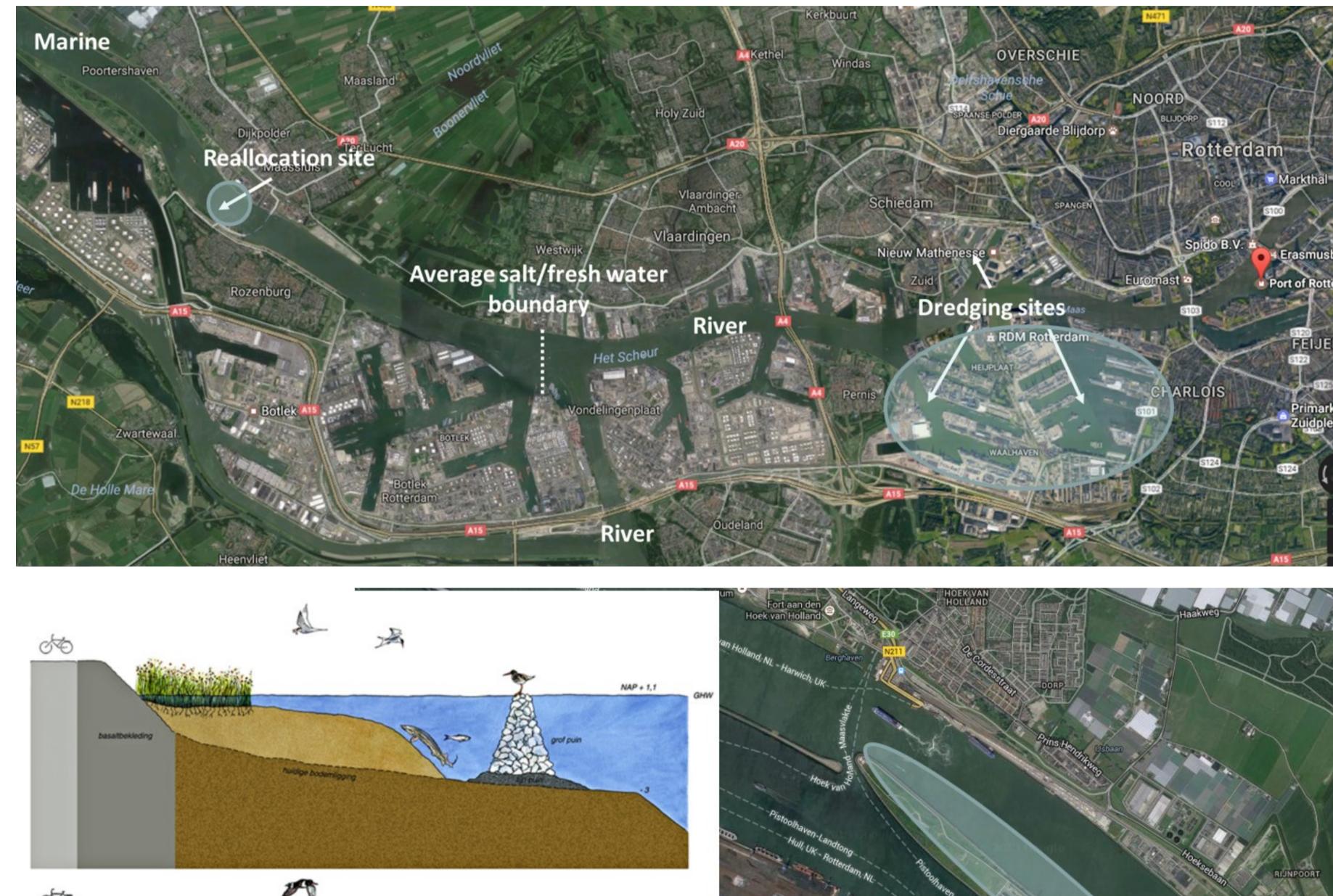
Which opportunities for valorisation? Focus on low cost, large volume solutions, to avoid market bottlenecks Minerals for civil engineering—Reducing sand or clay extraction Climate change, erosion and flood risk increase require greater mitigation measures (strengthening or regeneration of harbour/river banks, beach nourishment), consuming high volumes of natural resources.

# SURICATES: demonstration through pilots of sediment reuse for coastal defence or climate change mitigation

## Pilot projects **Rotterdam (200,000 t)**

Application of dredged sediments in estuarine works aimed at improving the channel and the resilience to major flood events

Improvement of the resilience of the river banks against major flood events

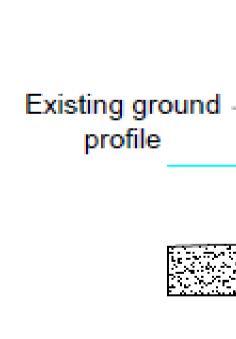


# **Pilot projects** Scottish Canals (20,000t)

coastline defence land restoration and development

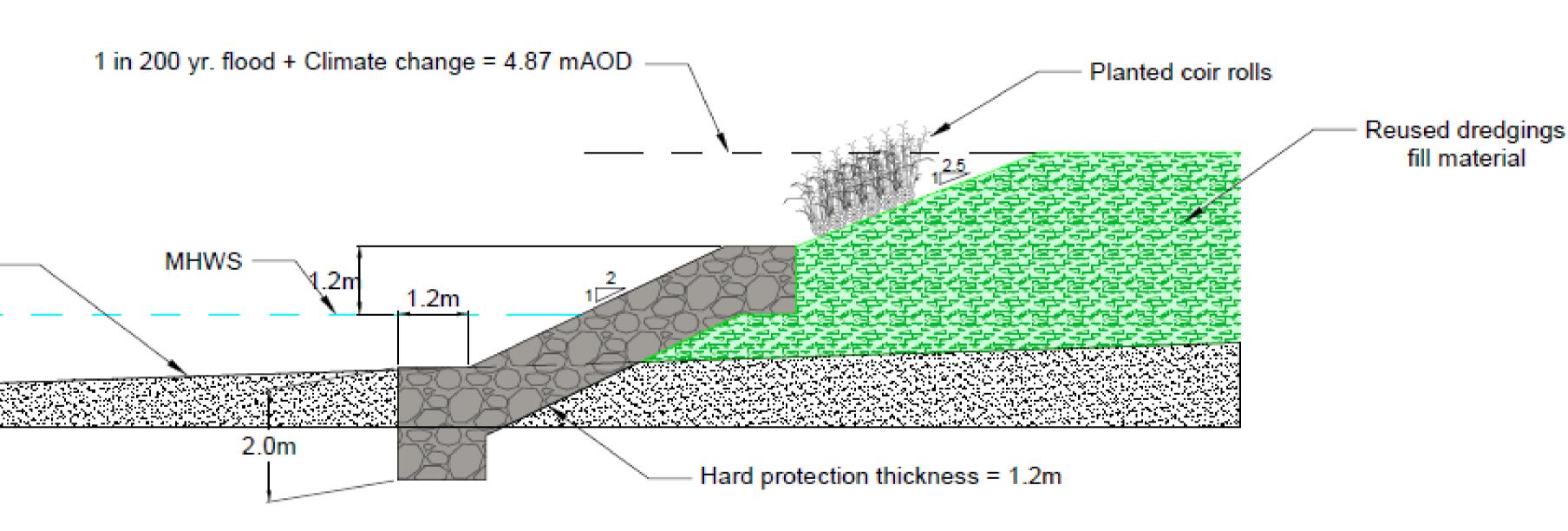












Future projects (Ireland, France)

Identifying opportunities for flood or coastal defences from sediments relocation

Issues **Coastal ero**sion—Sand Engine Flood dykes Lift up Lowlands

The toolbox works. **Economic modelling** Societal approaches **Risk analysis Convince project** operators that reuse approaches can be safe

Baseline monitoring Later evaluation of economic and environmental impacts from pilots at the local scale

#### **Expected outcome**

Development of a reuse sector (industries, services, SMEs). Drive up sediment reuse in NW Europe by 1.3 Mt/y after 5 years, and by 2.3Mt/y after 10 years.

E. Masson (Université de Lille), J. Harrington (Cork Institute of Technology), A. Widjeveld, H. Groot (Deltares), R. Lord (University of Strathclyde), T. Debuigne (IXSANE), M. Wensveen (Port of Rotterdam), A.

#### Group 2



Regional inventories of available sediments and of needs for climate change-related civil

**Environmental monitoring Civil engineering testing and validation** 



















Scottish Canals









