

# Interreg



## 2 Seas Mers Zeeën SARCC

European Regional Development Fund

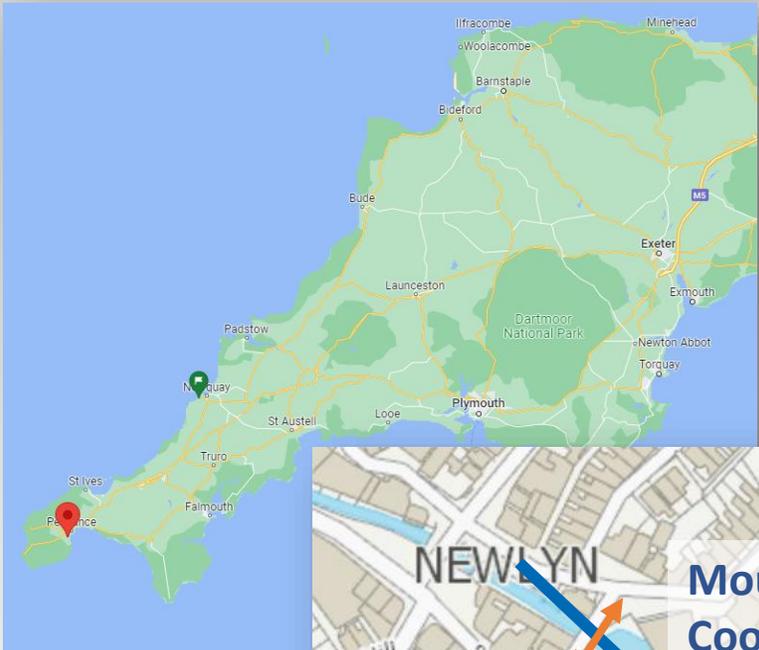
# Newlyn pilot



# ATKINS

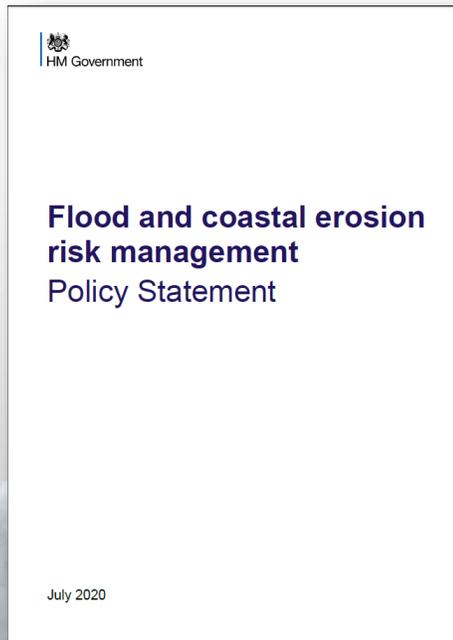


# Intro to the pilot

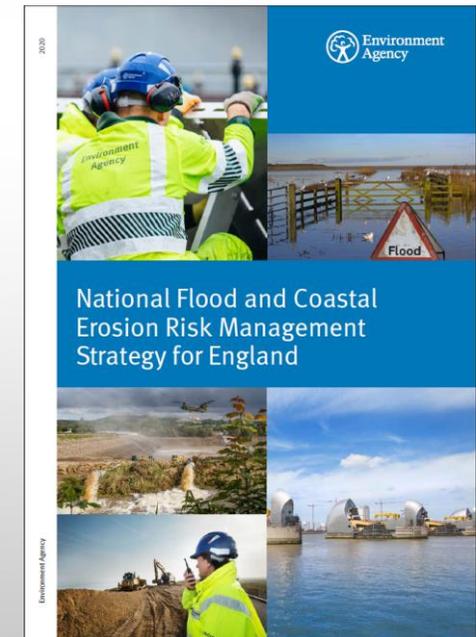


# National policy & strategies

- Defra FCERM policy statement
- National FCERM strategy for England



- **To create a nation more resilient to future flood and coastal erosion risk. In doing so, reduce the risk of harm to people, the environment and the economy.**
1. Harnessing the power of nature to reduce flood and coastal erosion risk and achieve multiple benefits
  2. Better preparing communities
  3. Enabling more resilient places through a catchment based approach



# History of flooding in Newlyn



<https://www.youtube.com/watch?v=GVi4vZ0H2Qc>  
<https://www.youtube.com/watch?v=CmRjAqhf-pk>

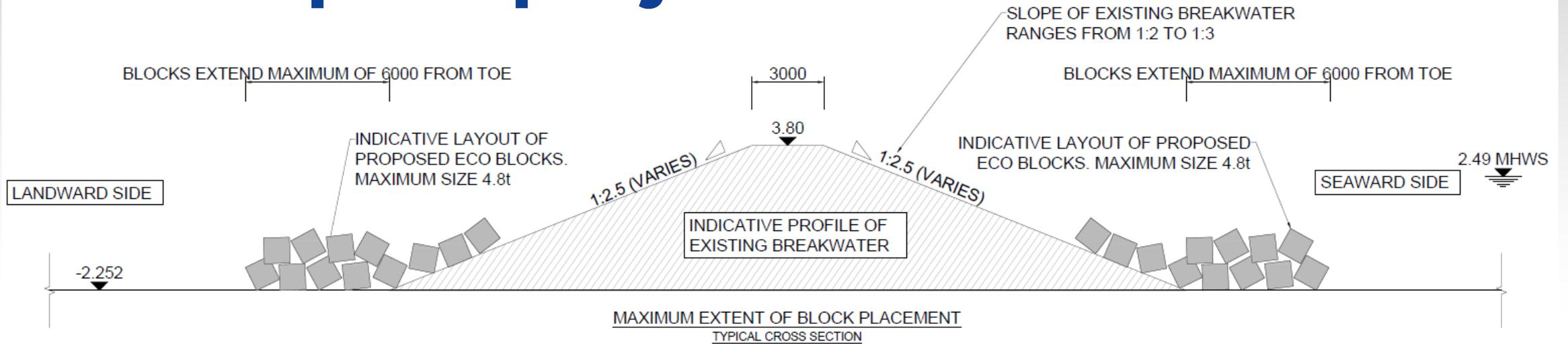
# Trial blocks

## Observations:

- Barnacles – *Chthalamus stellata* & *Astrominius modestus*
- Toothed topshells (*Monodonta vermiculata*)
- Common mussels (*Mytilus edulis*)
- Keel worms (*Spirobranchus lamarcki*)
- Encrusting bryozoan (*Conopeum reticulum*)
- Springtails (*Anurida maritima*)
- Common sea slaters (*Ligia oceanica*)
- Beadlet anemone (*Actinia equina*)



# The full pilot project



# Pre-construction



Public engagement



Heritage survey & changes to temporary works

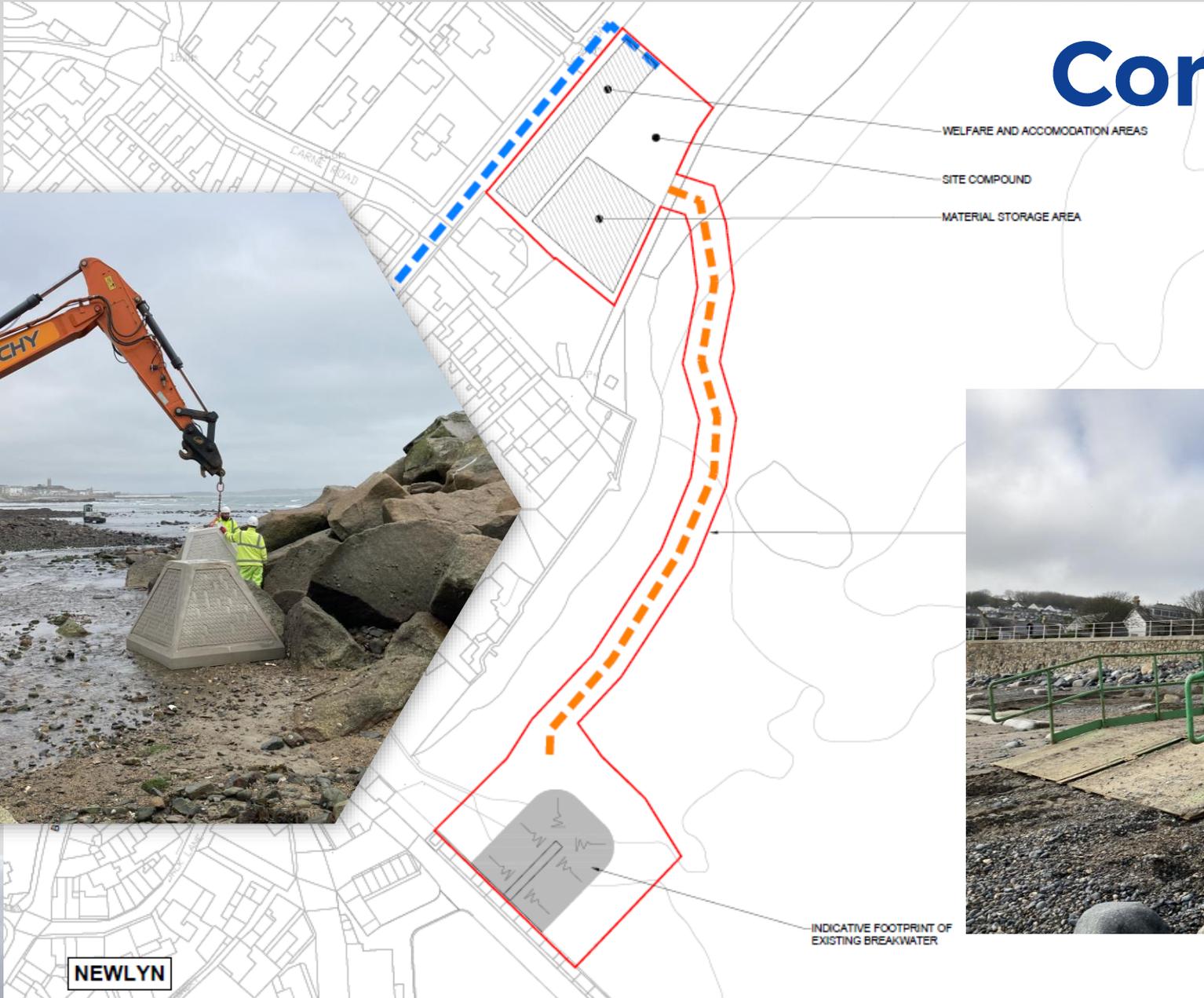


Planning permission and marine licence



Marine  
Management  
Organisation

# Construction





# What's next?

- **Construction completion**
- **Reinstatement of Newlyn Green**
- **Lessons learnt & future implementation report**
- **Monitoring**

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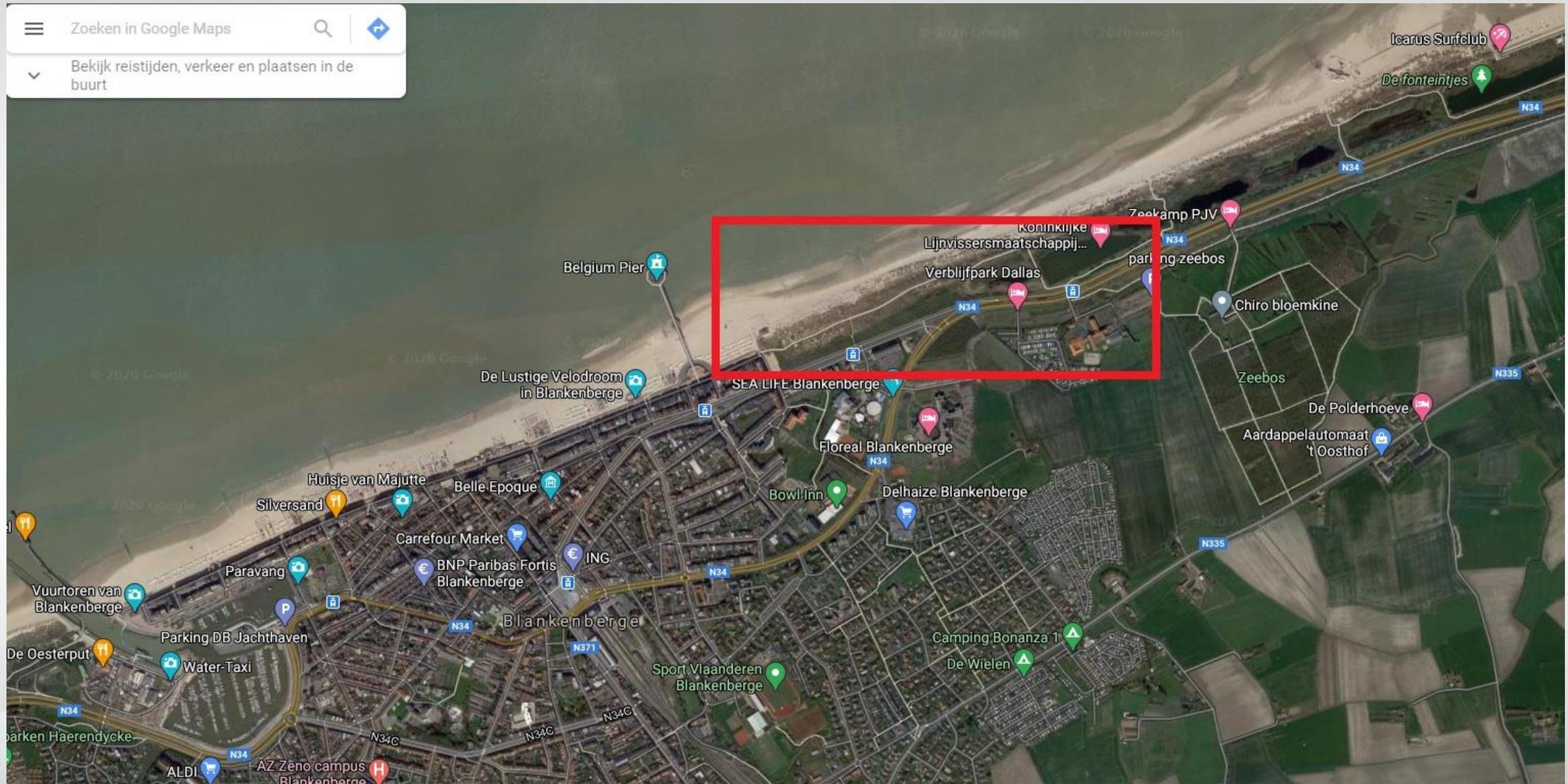
## 2 Seas Mers Zeeën SARCC

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# City of Blankenberge



# Situation





# Situation before SARCC







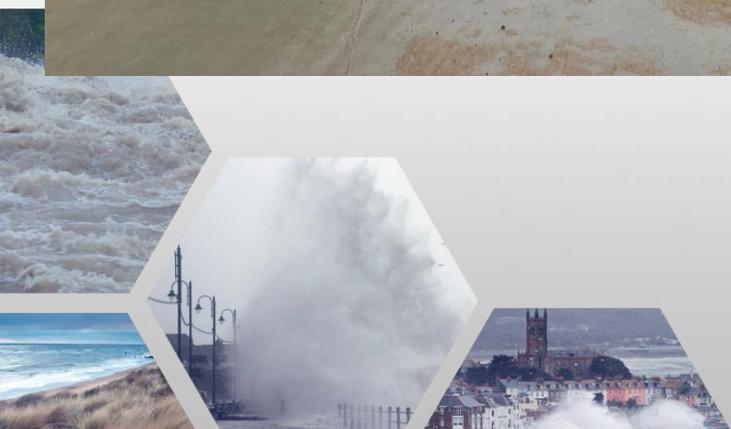
# September 5th 2022



# October 2 nd 2022



# October 23 rd 2022



# November 2022



# Challenges

- **Loss of parking spaces (both sides of the road).**
- **Preferred direction of traffic (inbound / outbound).**
- **Preferred hardening of the cycle path.**
- **Sand on the cycle path.**
- **Choice of dune plantings.**



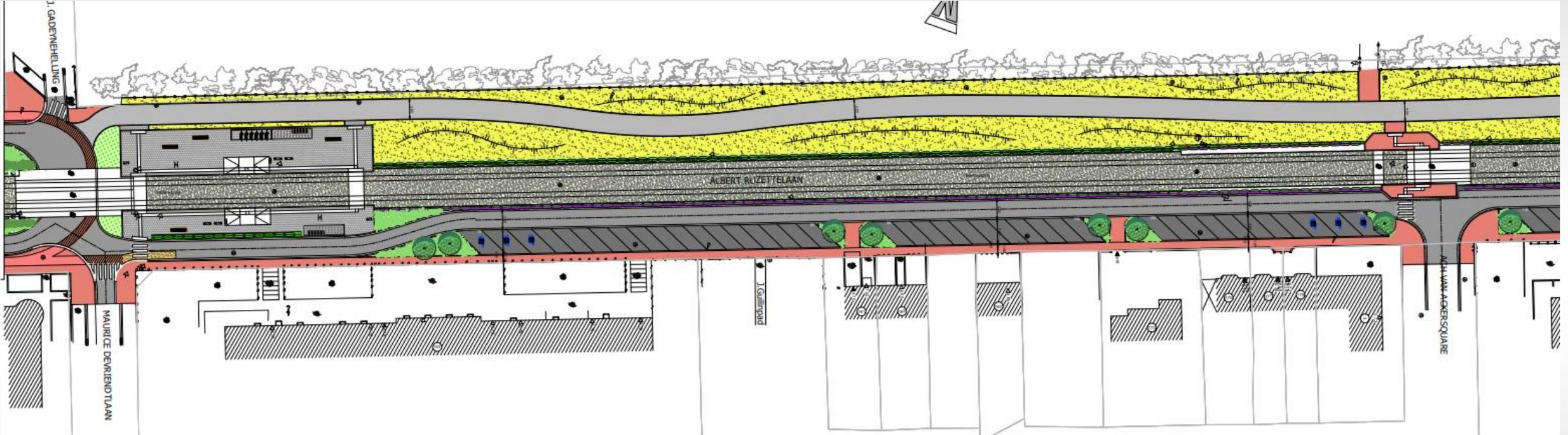
# Loss of parking spaces

- we lose 114 parking spaces → compensation ?
- solution for trucks / lorries that were parked at the end of site location





Kustlaan



# Preferred direction of traffic



# Preferred cycle path surface



# Choice of dunes plantings



# Convince the public

- **Benefits for climate**
- **Safer**
- **Calmer**
- **Nature <-> concrete**
- **Increase quality of life**



**THANK YOU**



# WP 4 Pilot: PILOT Oostende



# Pilot Oostende: What is all about?

- Coastal defence in the past: dykes, breakwaters and quay walls
  - In Ostend: during a heavy storm, the waves used to crash violently over the dyke



# Pilot Oostende: What is all about?

- **NEW** adage of coastal defence in Flanders (and also in Ostend): **SOFT WHEREVER POSSIBLE**, hard wherever necessary'

Introduction of new techniques:

- A growth beach;
- Introduction of beach nourishment;
- Building of sand traps;



# Pilot Oostende: What is all about?

- But near the pilot site: Sand Nuisance... coming with a heavy exploitation cost.



# Pilot Oostende: What is all about?

- Building with Nature: the realisation of a **Dune-before-dyke** (2021):

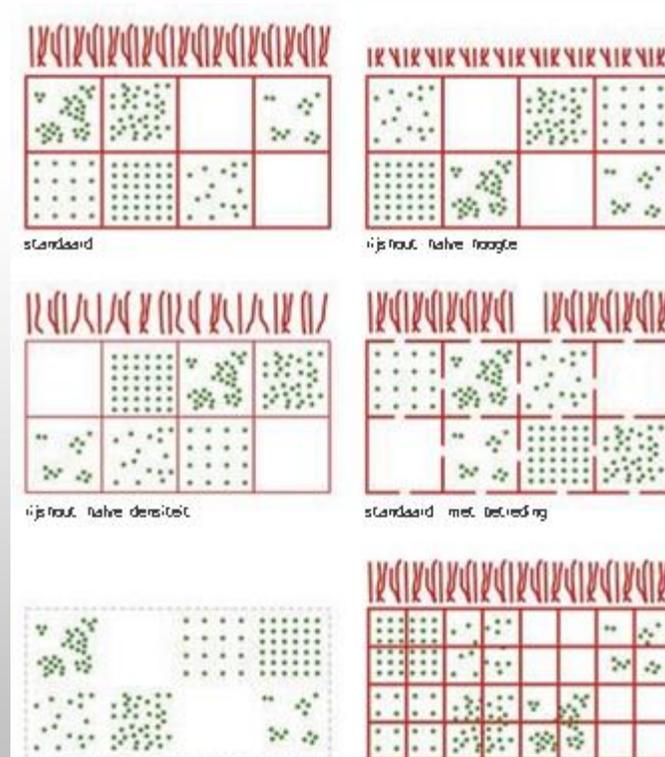


embryonic dune formation is initiated, after which natural processes take over.



# Pilot Oostende: What is all about?

- Building with Nature: the realisation of a **Dune-before-dyke** :
  - Total length of the pilot: 700 meter
  - The importance of marram grass
  - The test area was divided into several zones, each with different planting patterns of osier and marram grass



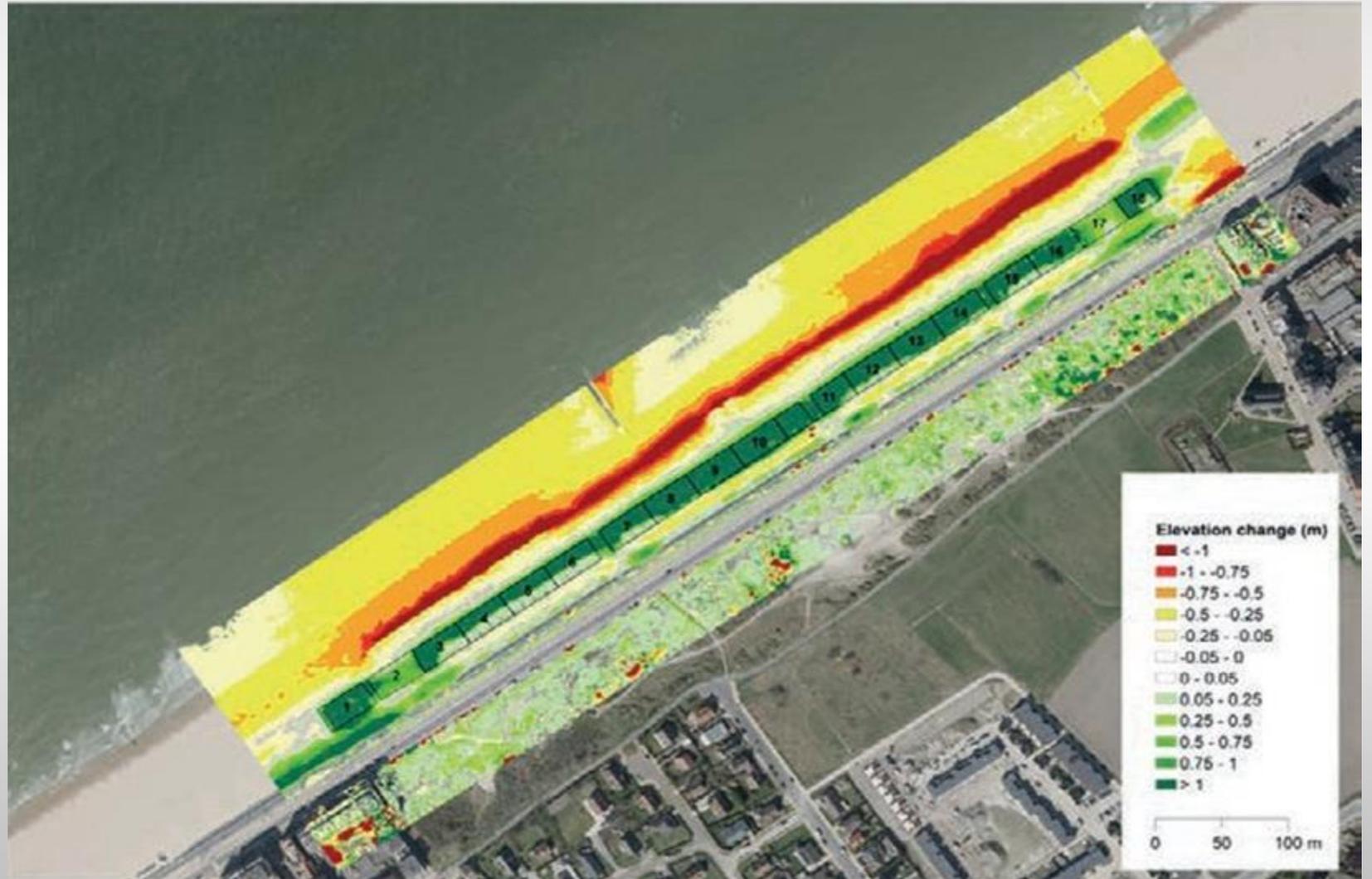
# Pilot Oostende: What is all about?

- Building with Nature: the realisation of a **Dune-before-dyke**:



# Pilot Oostende: What is all about?

- Monitoring with drone images (Flemish gouvernement + VIVES):



# Pilot Oostende: Lessons learned

- Results exceeded expectation: dune grows **faster** than predicted and tram and roadway remained virtually free from sand!
- In comparing with building a concrete sand trap the natural dune is **more interesting** in terms of cost, ecological value and aesthetics;
- Possible reason for resistance with the population: the loss of **open sea view** => importance of participation at forehand!
- Importance of **close monitoring!**
- Dune-before-dyke is **not** applicable everywhere!



# PILOT dune in front of dike @ Middelkerke

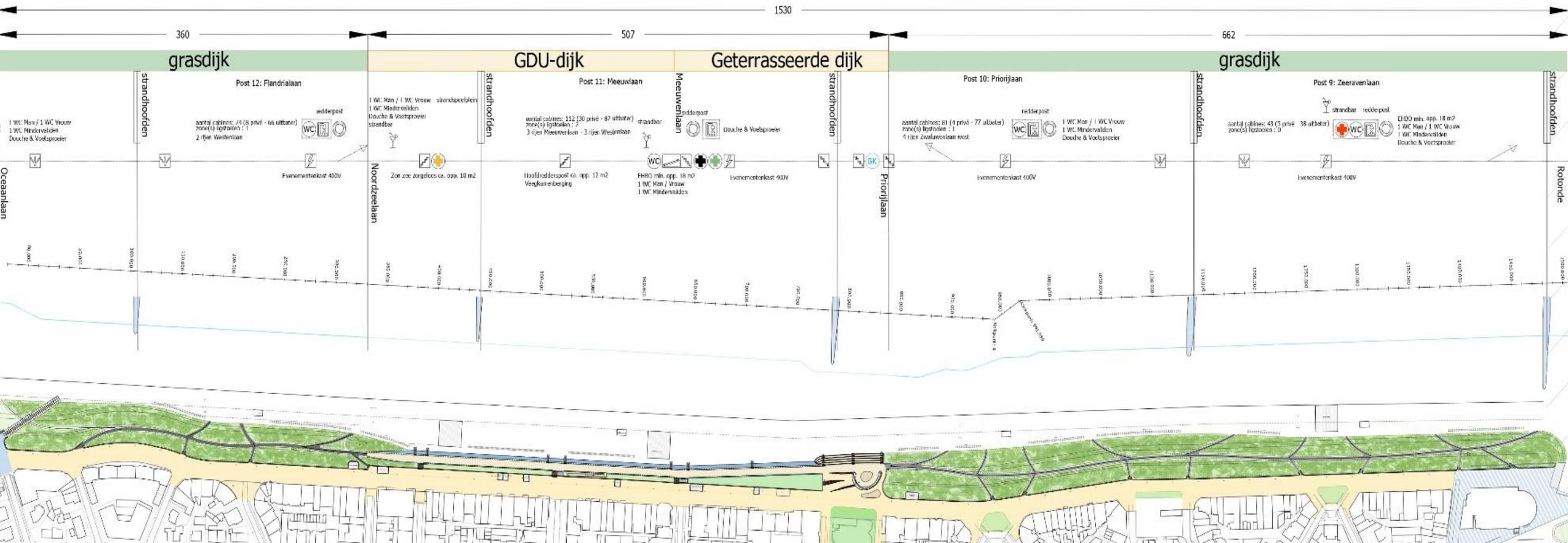


# PILOT “Grasdijk” Middelkerke

- **Visualisation**
- **Design and participation phase**
- **Long term**



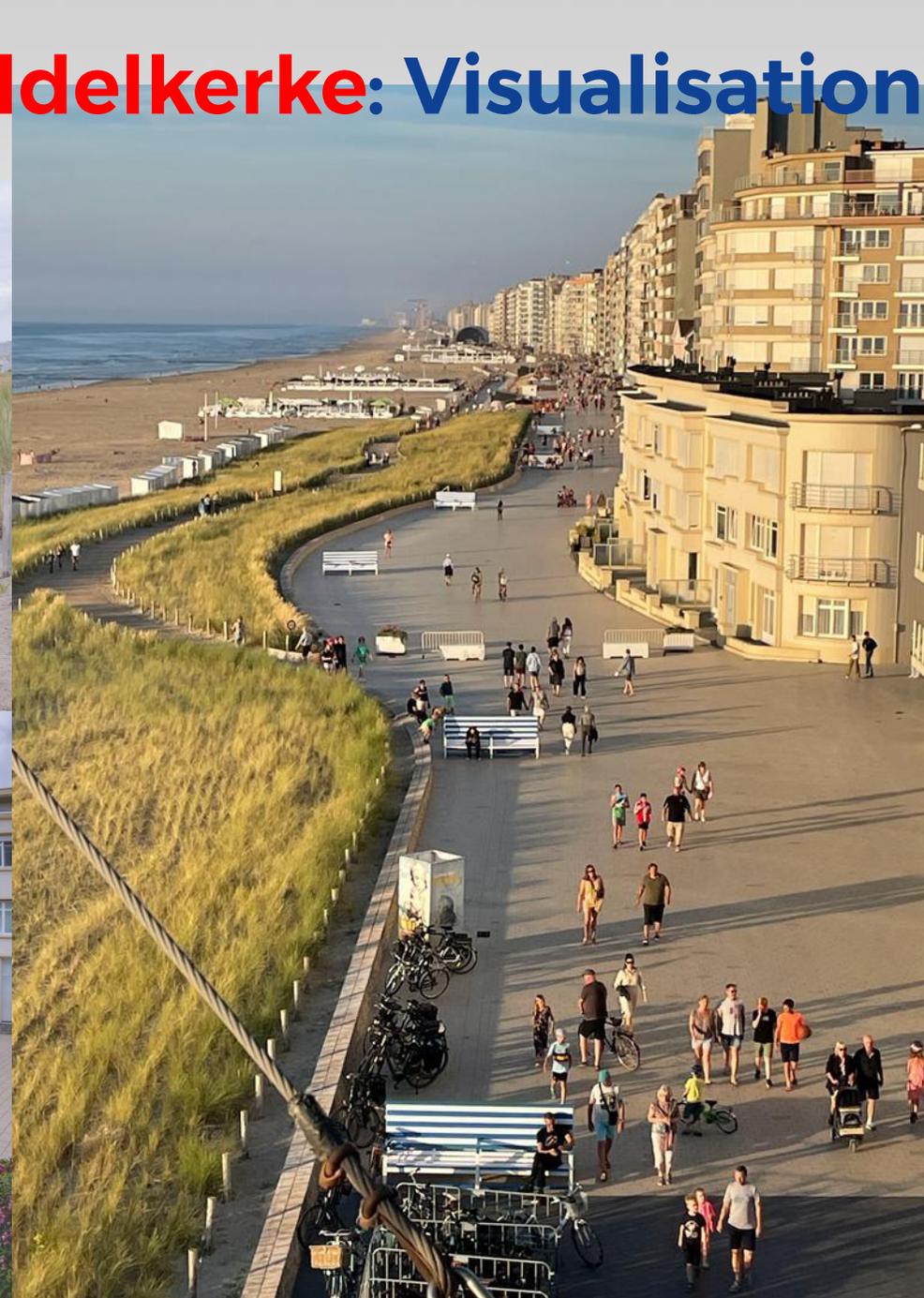
# Pilot Middelkerke: Visualisation



- Total length of Pilot site = 1,53 km
- Hybrid solution 40% gray – 60% green
- Green = dune in front of dike ( sand and marram grass) [NBS]

- More experience
- More nature
- More sun
- More Protection

# Pilot Middelkerke: Visualisation



# Pilot Middelkerke: Design-info- and participation

- Public Markets - Mockups – Public lectures – Public visuals
- Importance of design and participation
- Bottom –up approach
- Know-how during Study and execution
- Results in a durable shared space of locals , tourists and fauna and flora



# Pilot Middelkerke: Real estate value

## Coastal Barometer of the federation of solicitors 2022 (fednot)

- **Average increase of the value of an apartment**
  - Flanders +7,5%
  - Westende + 18,4%
- **Average increase of the value of an apartment at the seashore**
  - Flanders + 13,6
  - Westende + 49,2% (even when the work is still in progress)



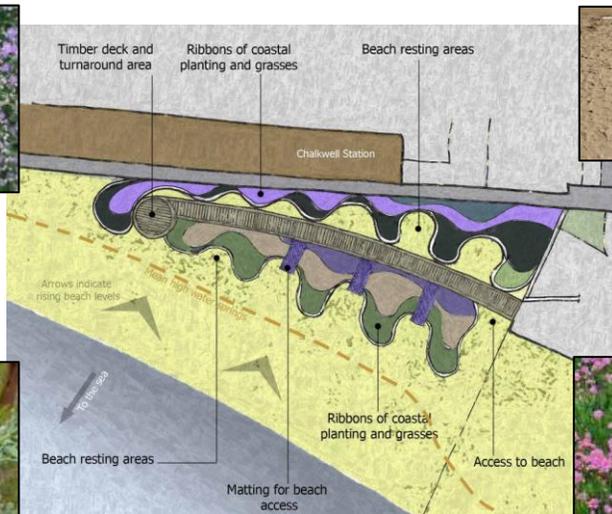
# Pilot Middelkerke: the long term

- The NBS-solution -> way of thinking by the local government  
->implementation in the rest of Middelkerke
- Necessity of a framework “controlled dunes and planting”  
More collaboration of ANB
- Necessity of general implementation -> NBS as general accepted coastal defense
- To be continued



# SARCC – Southend City Council Lessons Learnt

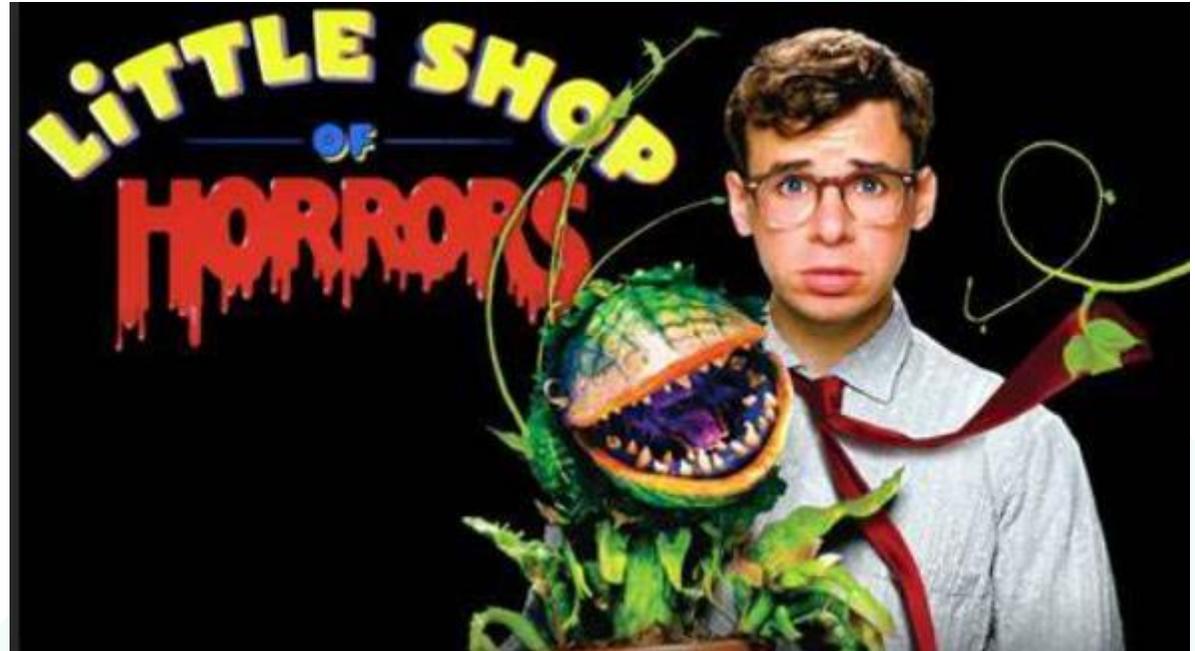
# Southend's Pilot Sites



**One man's meat is  
another man's poison**



**Plants don't grow to a timetable**



**It's all in the preparation – the bid!**  
**Get the science & engineering**  
**baseline data correct.**



**scientist**

**ˈsaɪəntɪst • noun**

**(n.) one who gets excited about things that no one else cares about.**

**Don't underestimate lead  
in times for consents,  
licences and permissions**



**Beware the Interreg  
bubble!**



**Thank you & any questions?**