

Interreg
CENTRAL EUROPE



GreenerSites

European Union
European Regional
Development Fund

TAKING
COOPERATION
FORWARD

 Final Conference - Rijeka 3rd July 2019

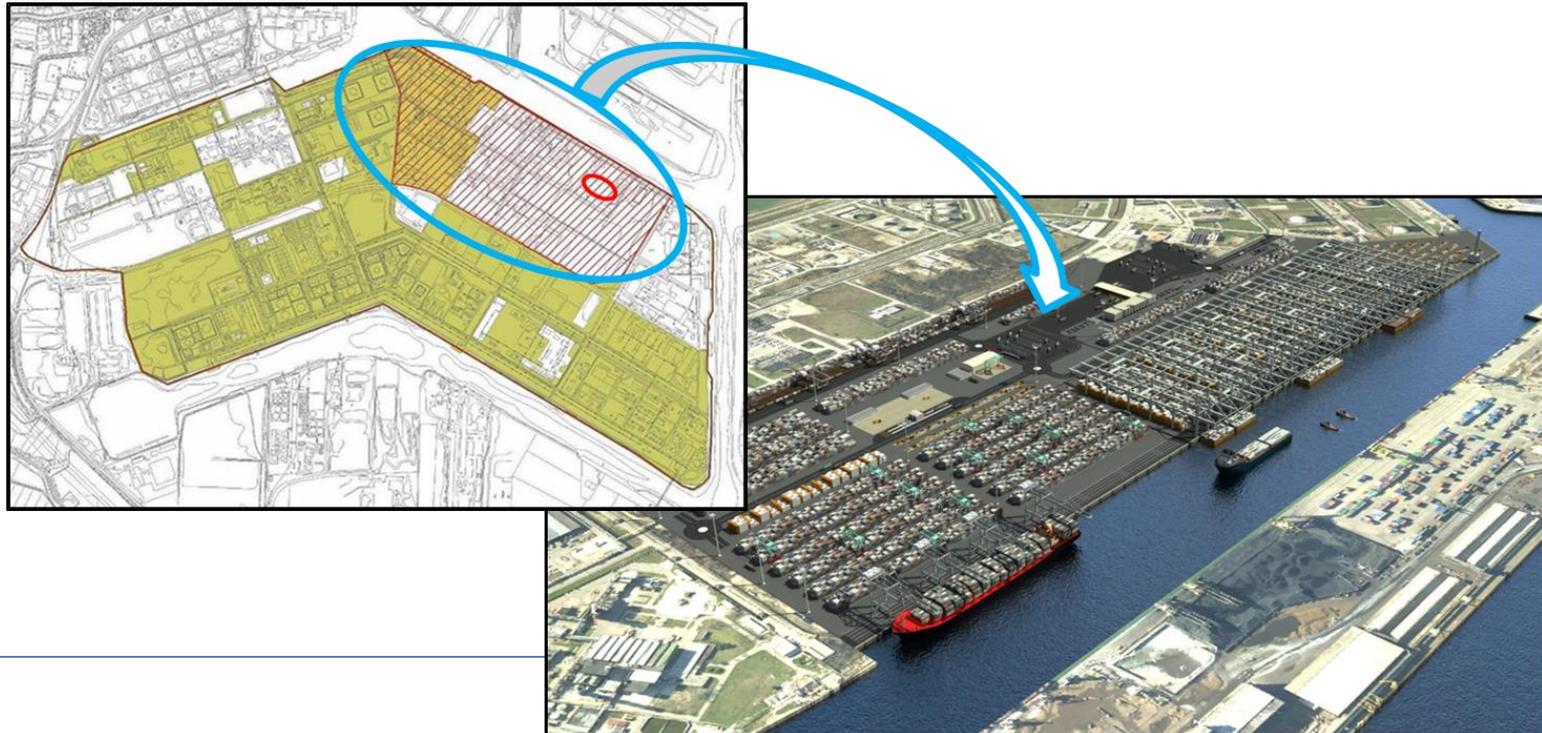
 Test of a more environmental friendly and cost effective way to provide the capping

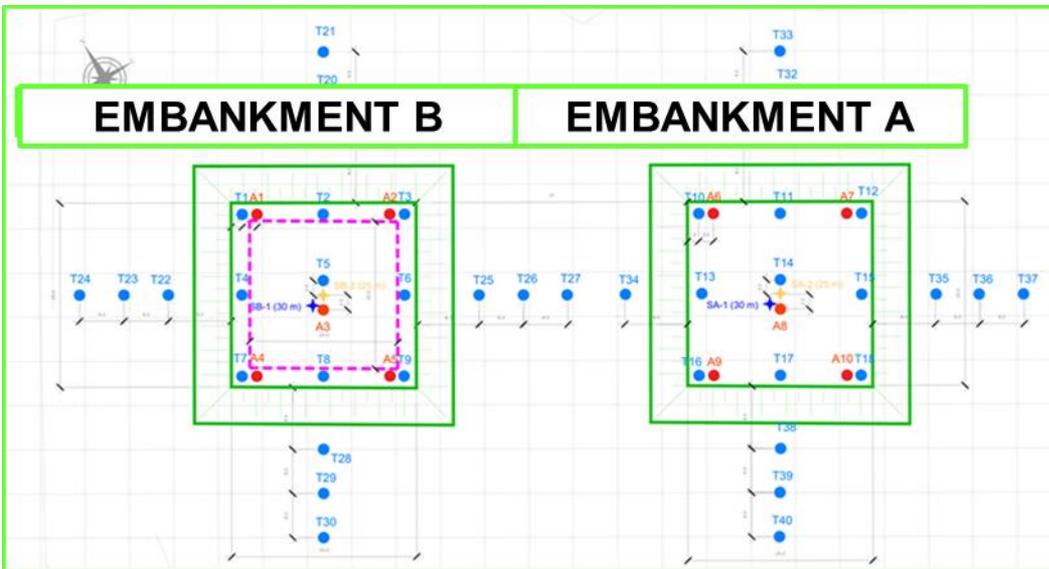
 PP 8 North Adriatic Sea Port Authority

PILOT ACTION AIM

The pilot project aimed at **testing** a more environmental friendly and cost effective way to provide **the capping** in the in the so called Montesyndial area.

The final aim was **to check the stability of the soil** over which the environmental capping will be realized for a container terminal, that is foreseen to be built.





EMBANKMENT A:

1. layer made of not-polluted soil:

- Lower base: 35 x 35 m
- Upper base: 25 x 25 m

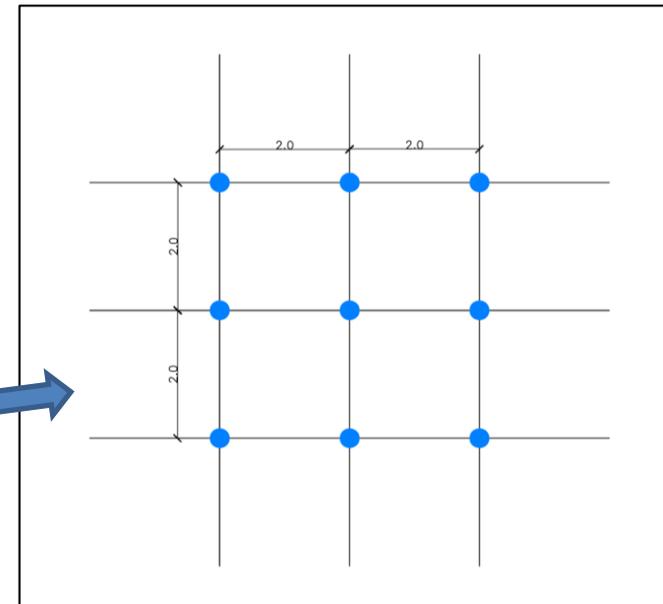
EMBANKMENT B:

1. layer made of not-polluted soil:

- Lower base: 35 x 35 m
- Upper base: 25 x 25 m

2. drainage system.

3. Capping layer: 25 x 25 m.



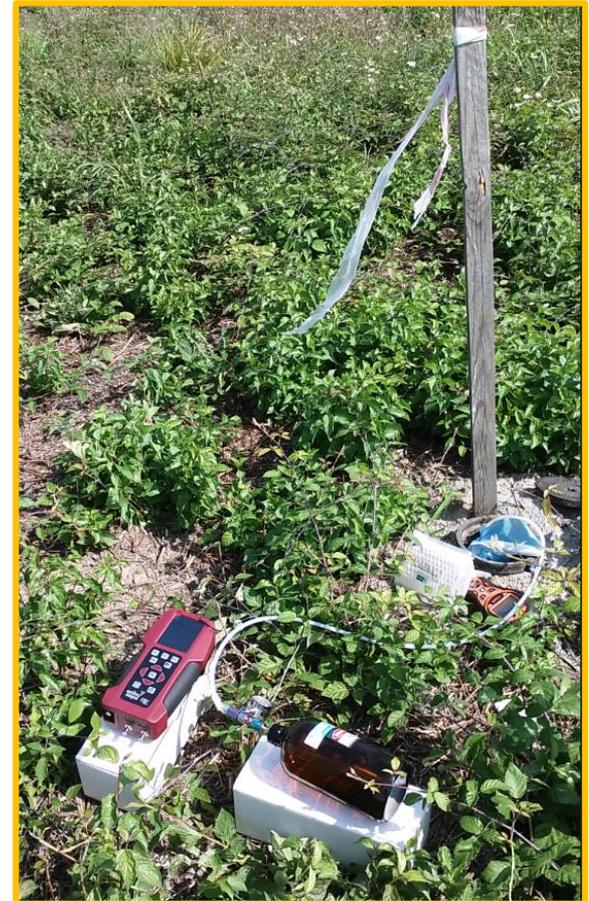
ACTIVITIES CARRIED OUT ALONG THE PILOT PROJECT

*Preliminarily to the layer made of not-polluted soil and to the capping, **geotechnical and environmental survey.***



ACTIVITIES CARRIED OUT ALONG THE PILOT PROJECT

*Preliminarily to the layer made of not-polluted soil and to the capping, **soil gas monitoring activities in collaboration with the Regional Environmental Protection Agency (ARPAV)***



ACTIVITIES CARRIED OUT ALONG THE PILOT PROJECT

Pilot project works (1/4):

- Preparation of the two areas***
- Drainage system on area “B”***



ACTIVITIES CARRIED OUT ALONG THE PILOT PROJECT

Pilot project works (2/4):

- ***Realization of the two layers made of not polluted soil***



ACTIVITIES CARRIED OUT ALONG THE PILOT PROJECT

Pilot project works (3/4):

- ***Topographic and geological monitoring activities***



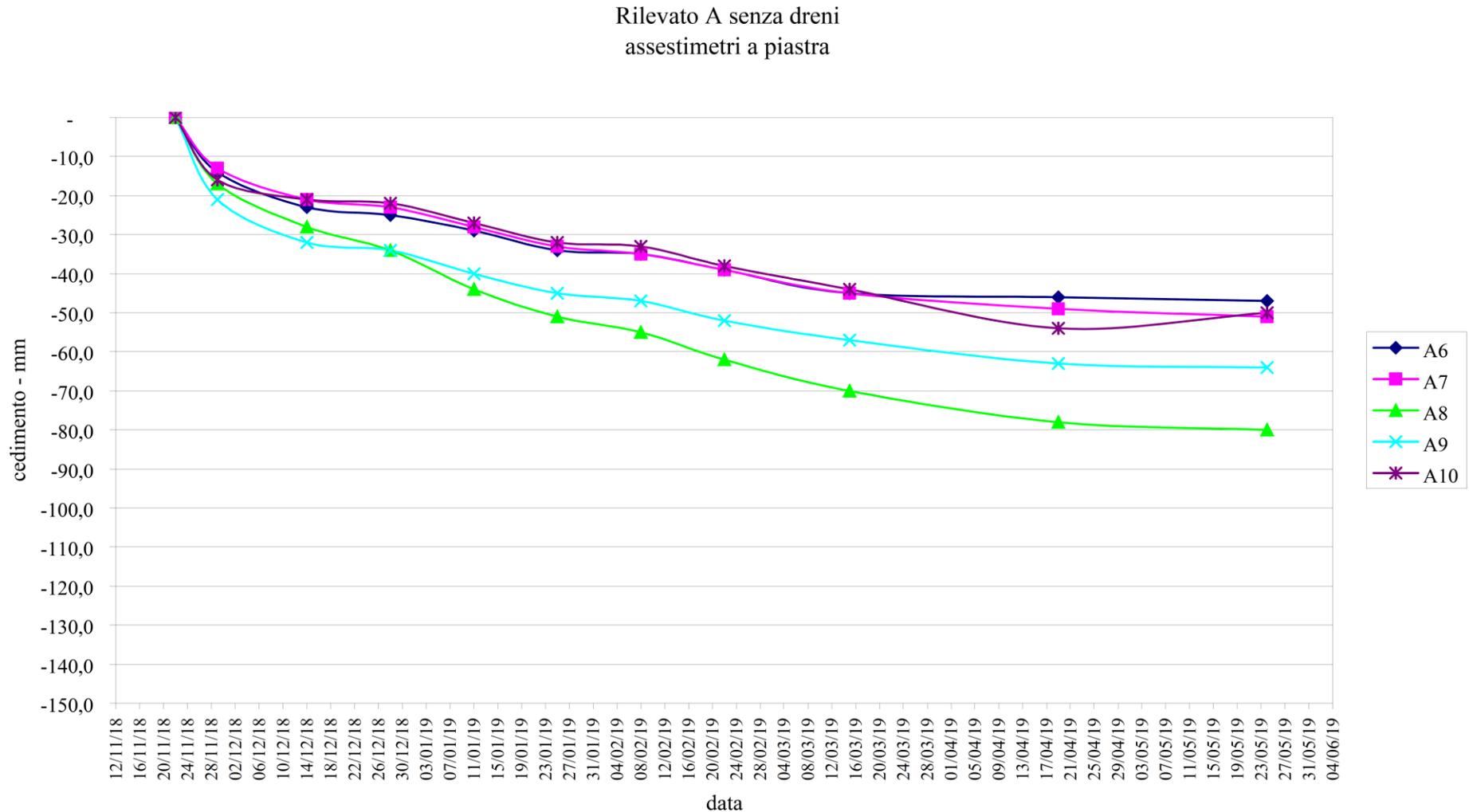
ACTIVITIES CARRIED OUT ALONG THE PILOT PROJECT

Plate load tests of the capping: below and above the tout venant layer (4/4):



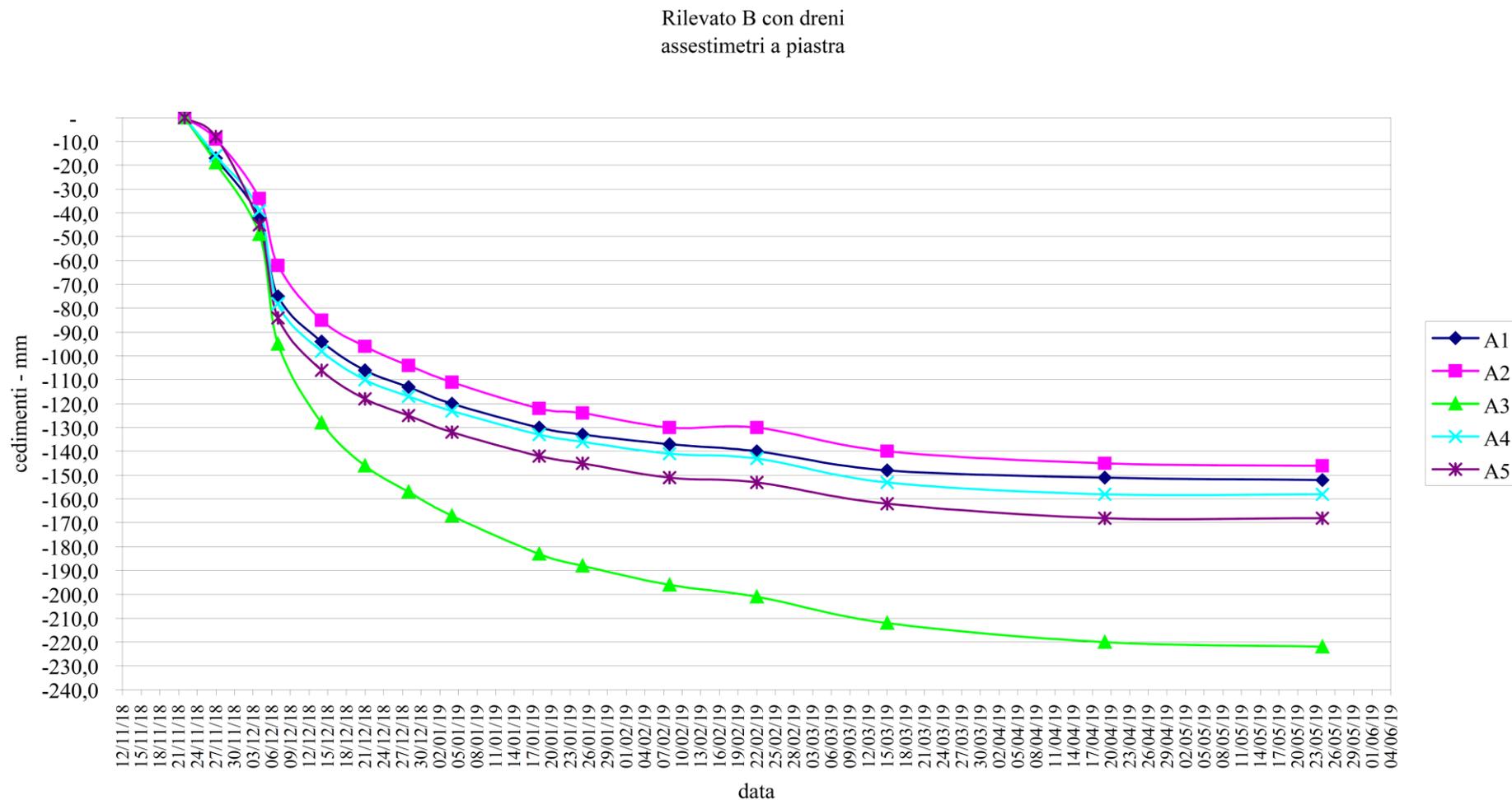
OUTCOMES OF EMBANKMENT «A»

Outcomes Embankment A: failures (mm) in time (days)



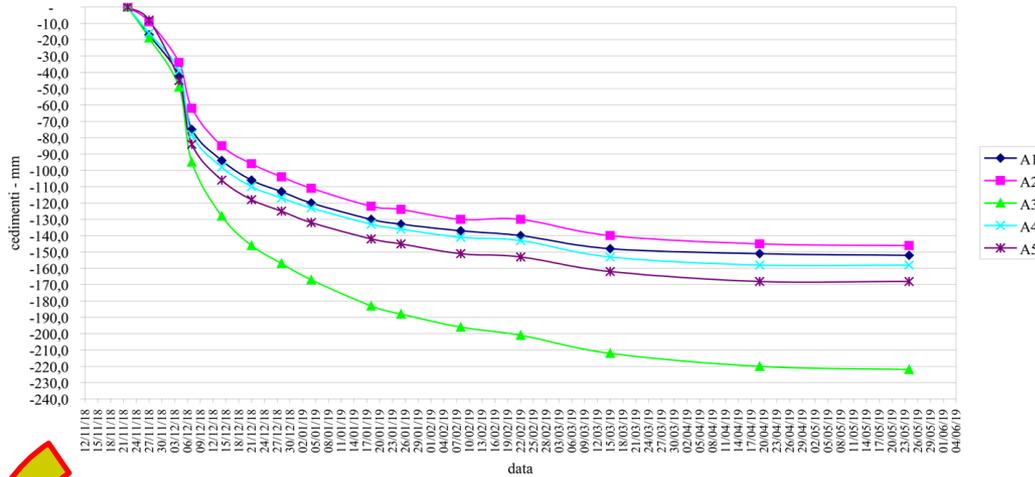
OUTCOMES OF EMBANKMENT «B»

Outcomes Embankment B: failures (mm) in time (days)



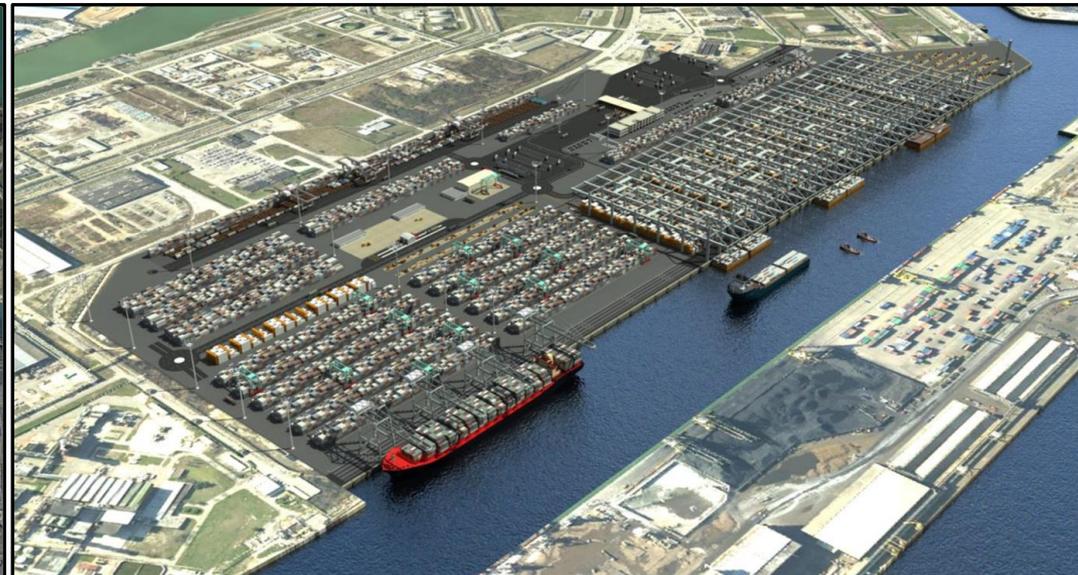
PILOT OUTCOMES IN SHORT AND LONG TERM VISION

Rilevato B con dreni
assestimetri a piastra



**Outcomes “Embankment B”
in detailed project design:**

- **STEP 1**
- **STEP 2**
- **STEP 3**



Thank you!



NORTH ADRIATIC SEA
PORT AUTHORITY

