



## Renere Havn Project Trondheim – contractors perspective

# 3 times 4

- 4 areas
- 4 activities
- 4 (main) stakeholders

# 2 conclusions



## JAN DE NUL – Company profile & key facts

- 100 % family owned
- 3 main activities
  - Dredging and Marine Works
  - Civil Engineering Works
  - Environmental Activities
- Yearly turnover of 2.1 billion €
- More than 6,400 employees





Dubai Palm Island II (Jebel Ali) - Dubai (U.A.E.) | 2004-2009  
200,000,000 m<sup>3</sup> reclamation

## ENVISAN: Three core activities → Three Business Units

- Environmental Dredging and Sediment Treatment
- Soil and Groundwater Remediation
- Waste and Alternative Raw Materials (oil sludge lagoons, mine tailings, etc.)

### With specific approach/strengths

- Solution provider (↔ technology provider)
- Offering A/Z approach
- Based on the specific problems and needs of the client
- For complex, multidisciplinary projects

## Description of the work

### ▪ Short description of the work:

- Environmental dredging of 75.000 m<sup>3</sup> contaminated sediment (PAH, heavy metals, PCB)
- Disposal in underwater cell and confined disposal area
- Building of confined disposal area
- Capping of dredged area (380.000 m<sup>2</sup>) with filter and erosion protection material (150.000 m<sup>3</sup>)

### ▪ Byggherre

- Trondheim Kommune /Trondheim Havn

### ▪ Financing

- Miljødirektoratet / Trondheim Kommune / Trondheim Havn







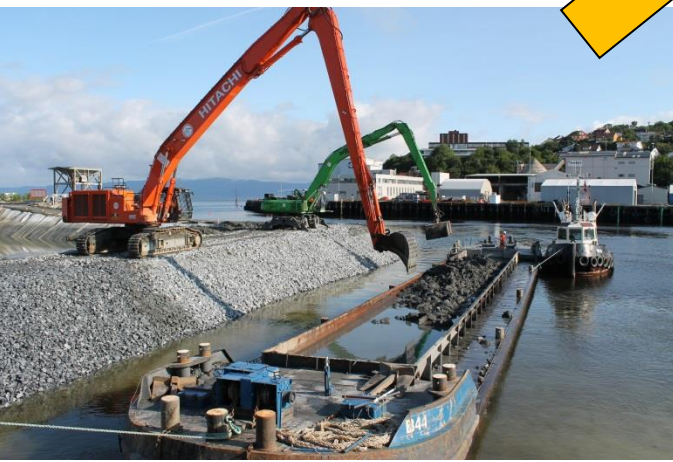
## Environmental dredging







# Transport & disposal of sediments



## Construction Strandkantdeponiet - Confined disposal area



© Paranode





# Capping – filter & erosion protection layer

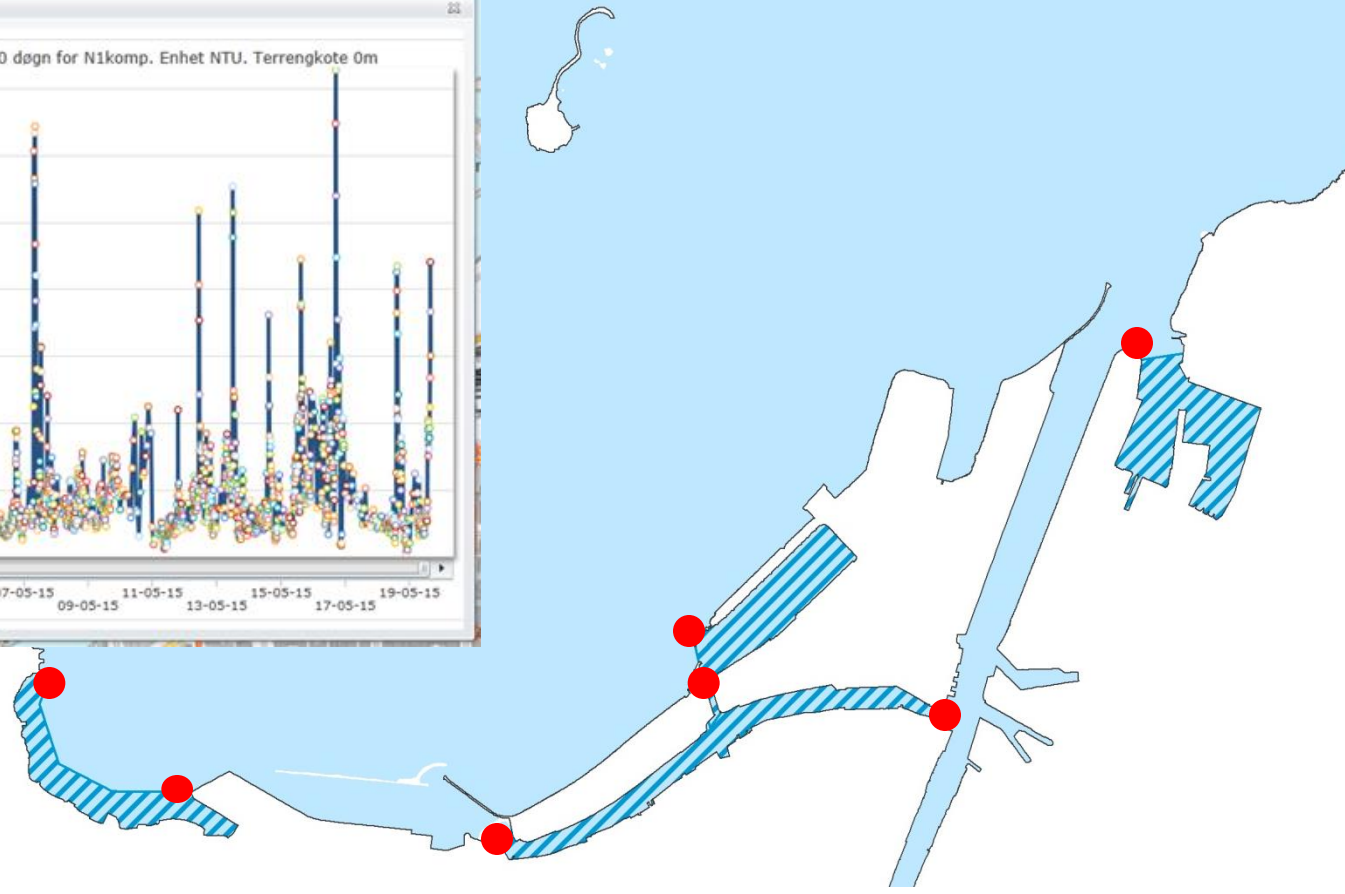
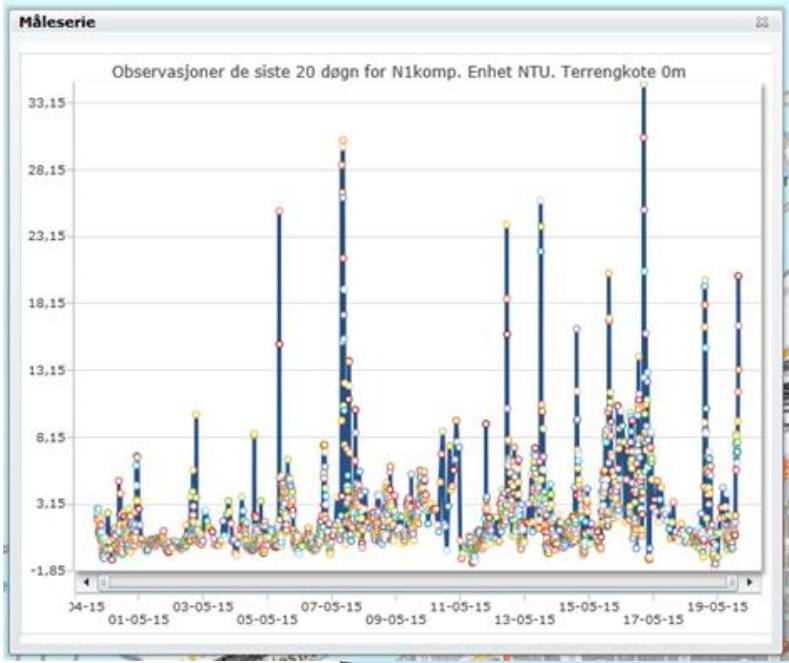




## Turbidity control & follow up – silt curtain



# Turbidity control & follow up – turbidity meters



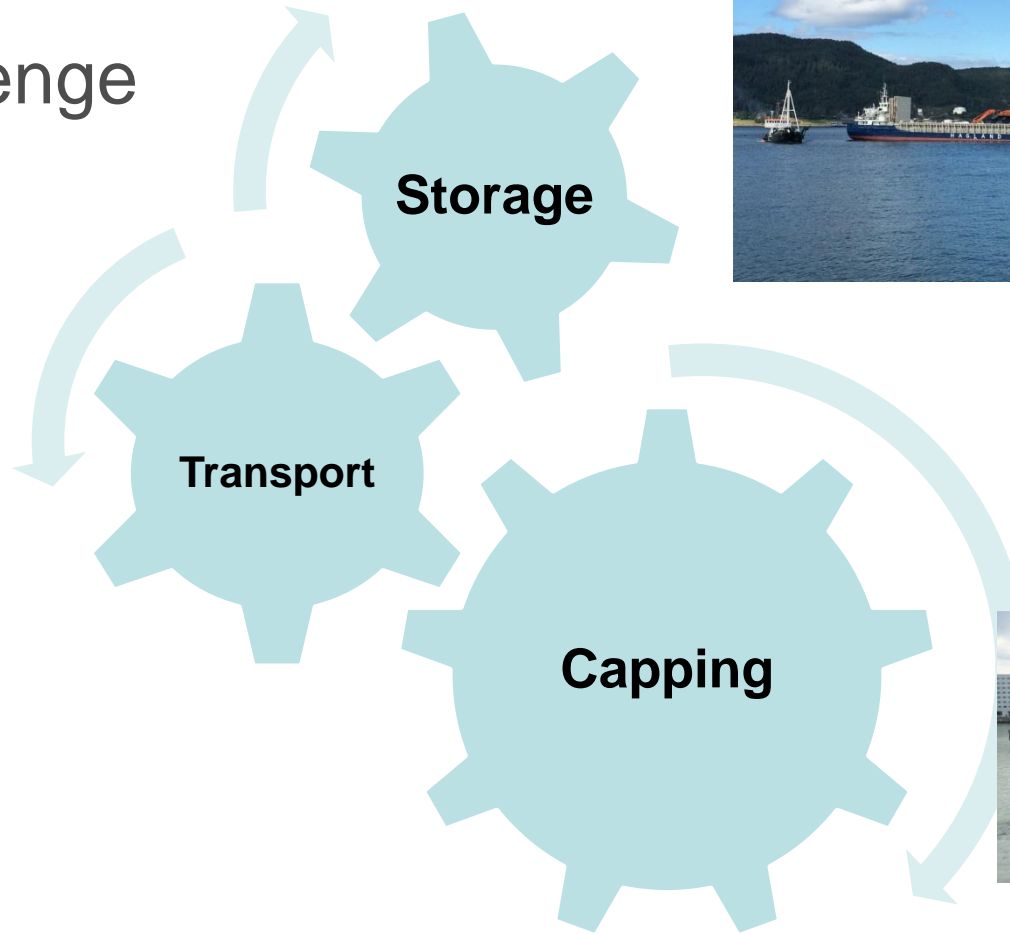
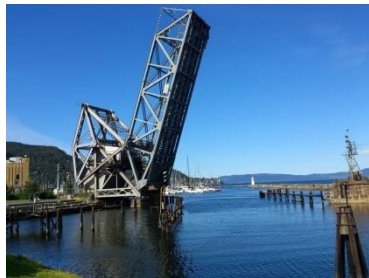


# Logistic challenge & planning



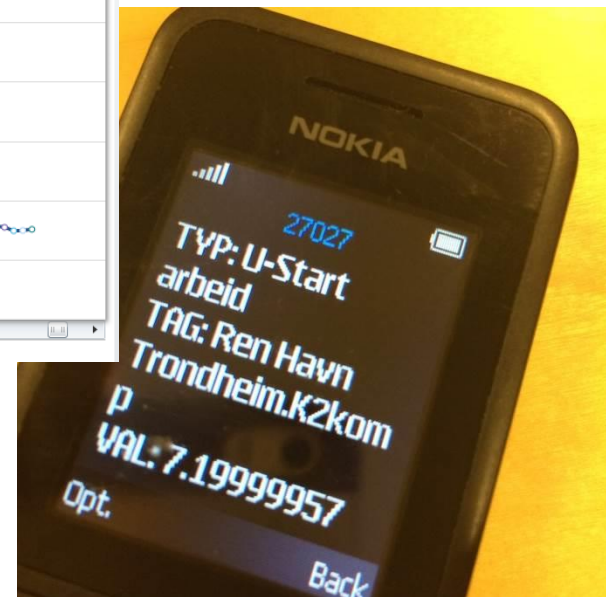
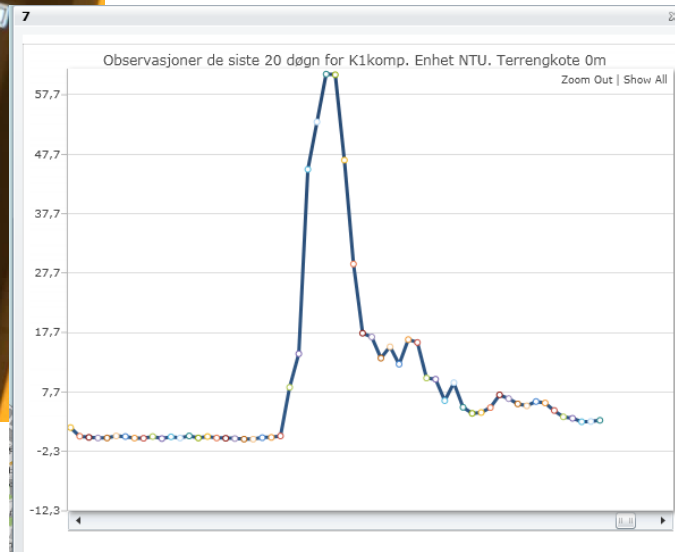
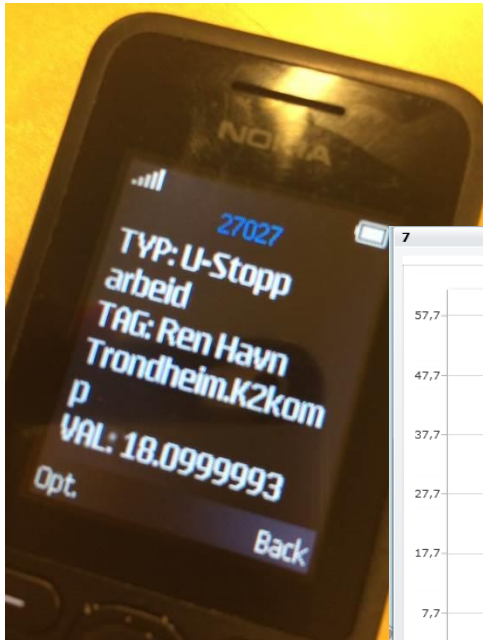


# Logistic challenge

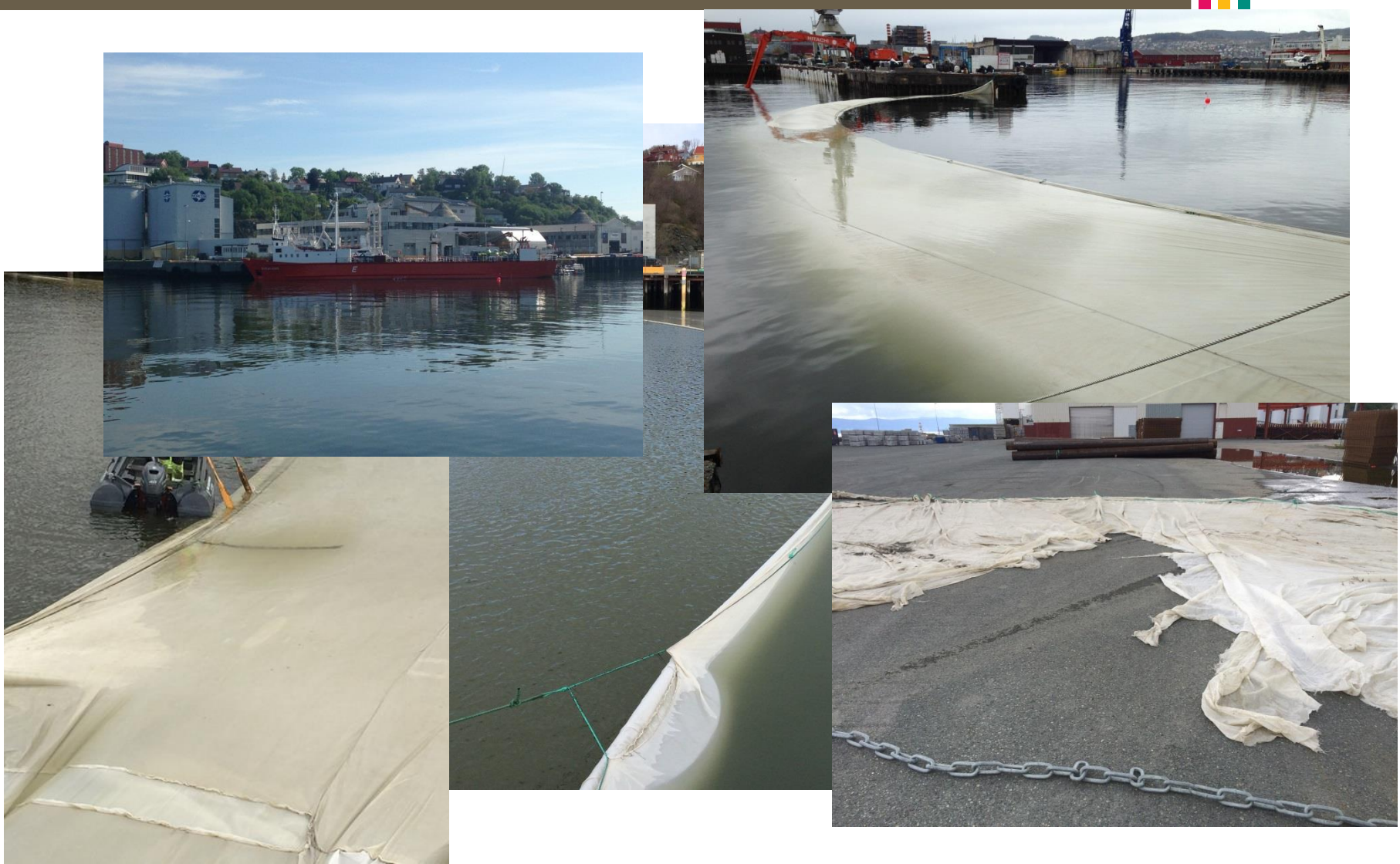




# The bogeyman of the contractor...







## Construction Strandkantdeponiet - Confined disposal area

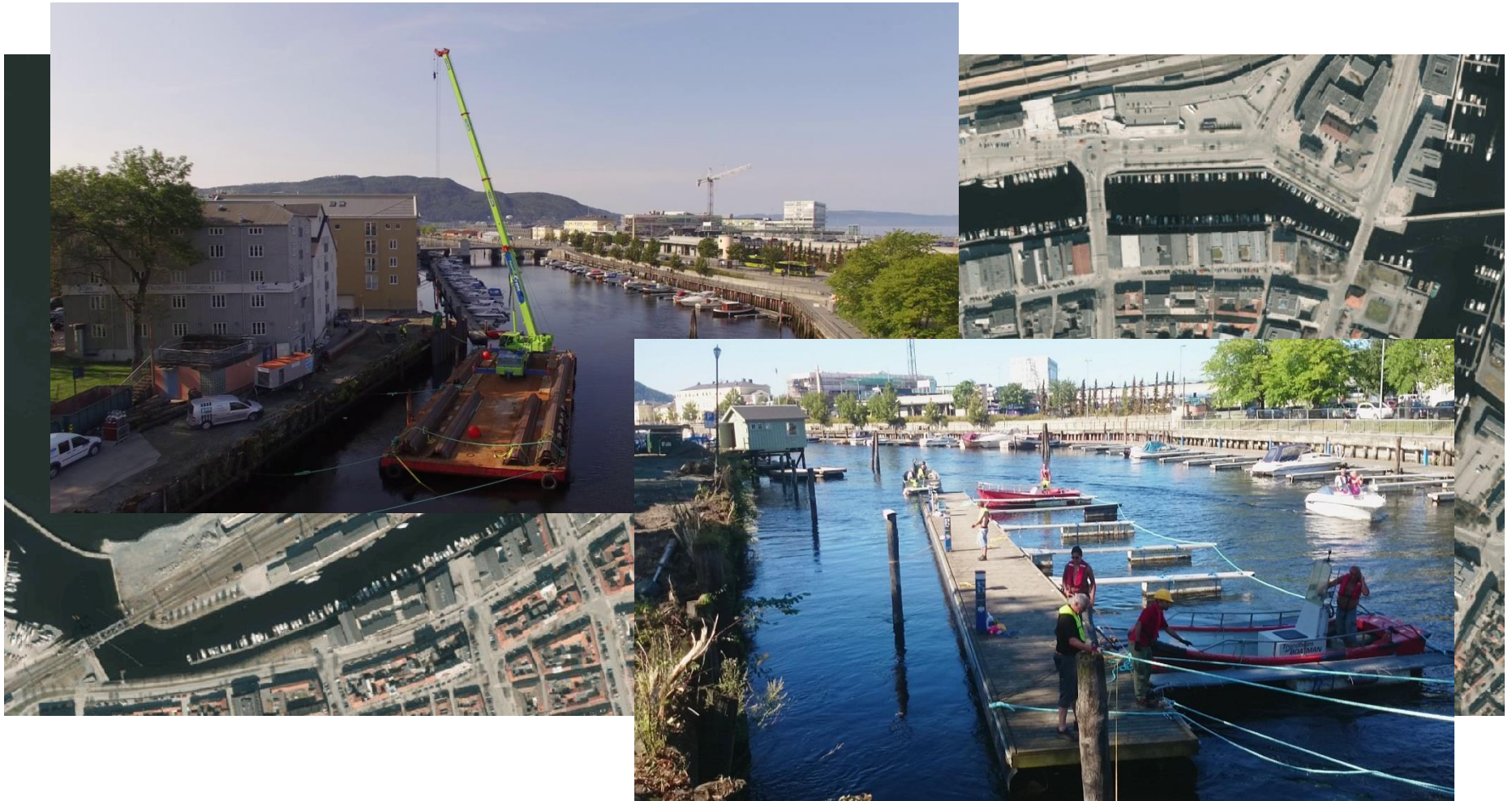


# The official story....



# The story behind the scene...



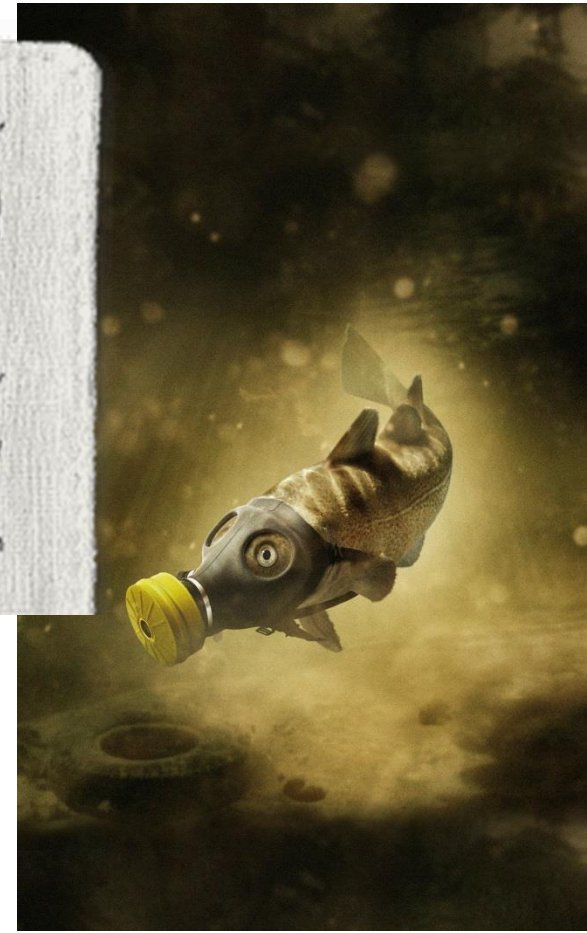




PROSJEKT

# Renere havn

Tromsø kommune Tromsø Havn









Byggherre & entreprenør

Project partners

