GIS @ POR = PORTMAPS

ASSET DATA IS AVAILABLE WITHIN THREE MOUSECLICKS
Port of Rotterdam: engine of the Dutch economy

- Total port area 12,500 ha (net 6,000 ha)
- Total employment 180,000 people
- Total added value € 21 billion (3.2% GNP)
- 3,000 companies
- Largest port in Europe, 9th port worldwide
- Throughput 461.2 million tons; 12.4 million TEU (containers)
- Depth up to 75 ft
Port and industrial area
Port areas

Dordrecht

Vierhavens/Merwehaven

Waal-/Eemhaven

Pernis
Port areas

Maasvlakte 1

Europoort

Botlek

Maasvlakte 2
Dominated by fossil fuels and logistics

Cargo ratios in 2016

- Liquid bulk: 48%
- Containers: 27%
- Dry bulk: 19%
- Breakbulk: 6%

27 oktober 2017
Water depth European ports

Rotterdam
Le Havre
Amsterdam
Antwerp
Bremerhaven
Hamburg
Vlissingen
Wilhelmshaven

APM S-Class & HPL HAX-Class
Malacca-max
Landlord port model

Port of Rotterdam Authority
The assets of PoR

Total of 32 asset types
- 70.5 km Quay walls
- 180 km Embankment
- 310 ha Roads
- 3.500 ha Sea bed
- Civil Structures, Buildings, Vessels etc.

Invested Capital € 3,66 Billion
Maintenance budget € 72 Million
Approx. 110 employees in AM
Master Data : Portmaps

One system for all our maps
Three clicks to content
Smart object model
Implemented in only 6 months in 2013
Live since 1-1-2014
2,5M+ maps generated since going live
800+ daily users
Portmaps Architecture

- Expert Systems Water Assets
- Expert Systems Land Assets
- Expert Systems Nautical Assets
- Expert Systems Modalities & Capacity
- Expert Systems Commerce
- Expert Systems Environment

SAP

ARCGIS

SHARE POINT
PortMaps live
Smart Infrastructure: Inspection vs sensing

- Made possible by Internet of Things (IoT) and increasing availability of high-quality IT connectivity
- By deploying smart - autonomous - devices that generate real-time operational information and share it, we can effectively control and manage the four modalities within the port.
- Examples in Port of Rotterdam:
  - We-Nose network: real time air pollution detection and registration
  - Quay walls: glass fiber sensors for detection of piping effects
  - Real time track & trace of push barges in the port area with help of sensors
Finally: the Port and its “Digital Twin”