



Performance Optimization Realized Through Sharing

Background & mission

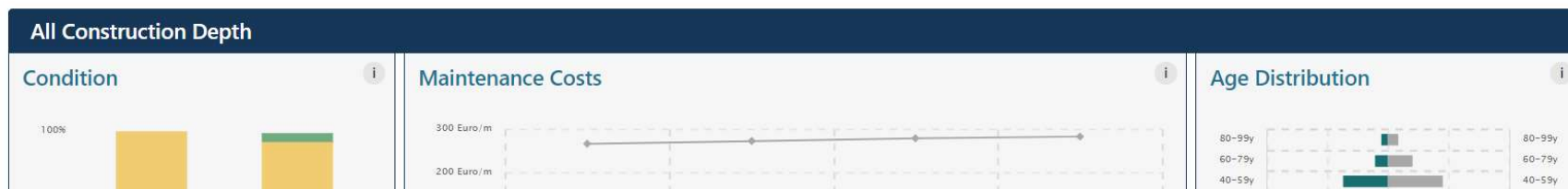
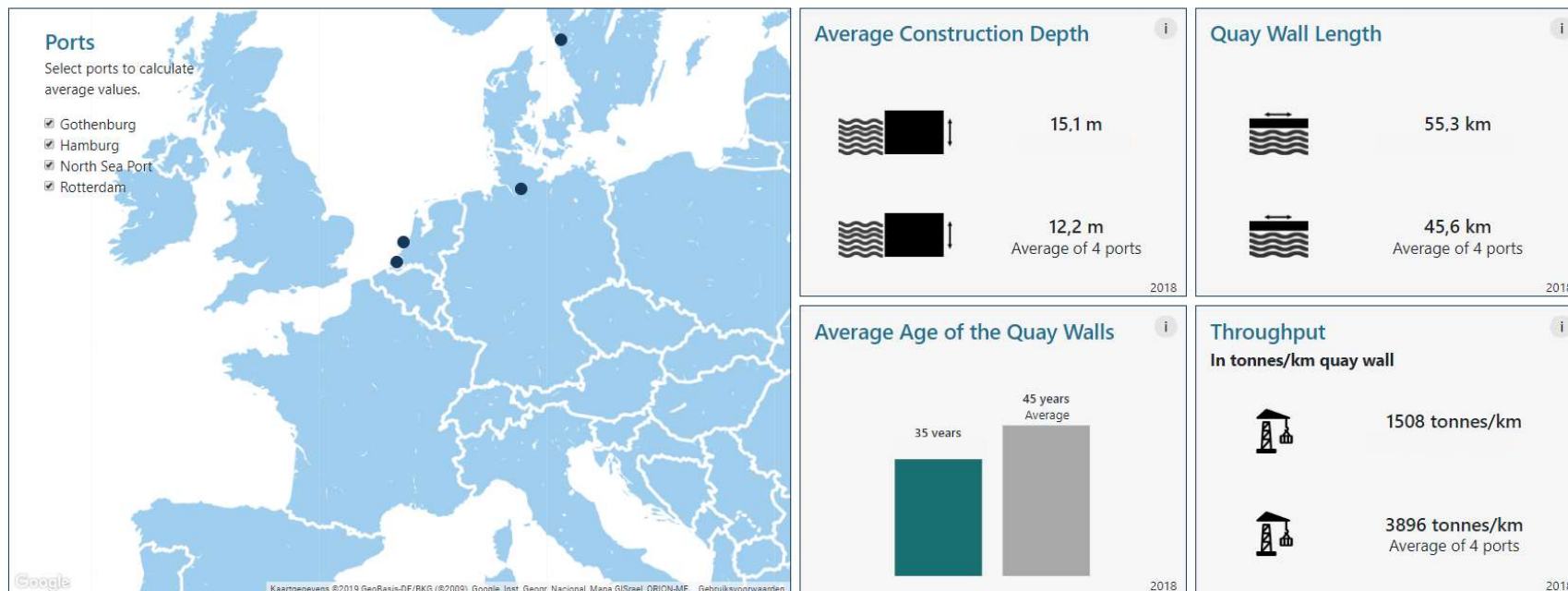
Four ports initiated a cooperation for:

The exchange of knowlegde on asset management essentials for continuous improvement enabled by a web-based benchmarking model



Quays overview

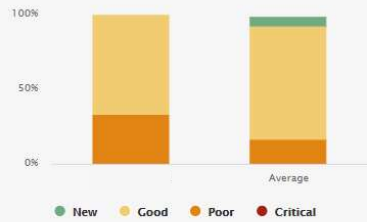
Benchmark > Quay Overview



Quays overview condition

All Construction Depth

Condition



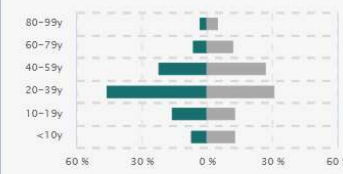
2018

Maintenance Costs



2015-2018

Age Distribution



2018

>15 m Construction Depth

Condition of the quay wall is the present state of the asset, usually present state of a physical asset, usually referring to the structural integrity. It can also relate to appearance, therefore the visual condition (results of inspections) is also taken into account. The condition is determined by the degree of damage and deterioration, extracted from visual inspection or destructive or non-destructive testing.

$$(average) condition = \frac{\sum_{i=1}^n condition_i * lenght_i}{\sum_{i=1}^n lenght_i}$$

With

$$condition_i = weight_{retaining\ structure} * condition_{retaining\ structure} + weight_{ballards} * condition_{ballards} + weight_{fenders} * condition_{fenders} + weight_{superstructure} * condition_{superstructure}$$

Given that:

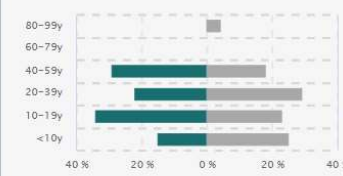
$$\begin{aligned} weight_{retaining\ structure} &= 0.50 \\ weight_{superstructure} &= 0.25 \\ weight_{ballards} &= 0.15 \\ weight_{fenders} &= 0.10 \end{aligned}$$

Maintenance Costs



2015-2018

Age Distribution



2018

Maintenance Costs

Age Distribution