Asset Management Plan
Construction

Optimisation of the planned Investments for Calais 2015

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Port de Calais

- Key facts and figures
  - Calais is the leading port in France for passenger traffic and the 2nd largest port in Europe for roll on-roll off services:
    - 10 million passengers each year
    - 44 million tons of freight
    - 2 million trucks use the port facilities
Port de Calais 2015

- **SPD**: project company 80% owned by Meridiam and CDC.

- **Key facts and figures**
  - **1ST maritime project** under the European Union priority infrastructure plan
  - **First quarter 2021: commissioning**
  - Total cost of €862.5 Million, of which €675 Million for works
  - **Double the current capacity** of the port by building a new dock covering 90 hectares

Calais Port 2015 is a response to new needs:

- **40% growth in cross-channel traffic by 2030**
- **Increase in the size of ferries**
- Development of **modal transfer** (rail routing and unaccompanied ro-ro ship transport)
- New international environmental standards
- 3.3 km ok breakwater and 1.7 km of riprap slope protection
- 3 ferry berths with double bridge linkspans
- 650 m of HZ/AZ combi-wall quay
- 31 buildings
- 8 bridges

- 650,000 m² of road and platform paving
- 270,000 tons of asphalt
- 15 km of sewage network – 10 rainwater treatment units
- 350 km of cable ducts
- 1500 ml of railways
Asset Management plan

- **Objectives**
  - Optimise CAPEX over the concession period (50 years)
  - Implement a risk-based approach to prioritise investments on strategic assets regarding safety, port operation and service quality
  - Choose between several scenarios and be able to justify the choices to the investors

- SPD finances and is responsible of the port’s extension construction, as of the investments during 50 years

- SPD is engaged to implement asset management best practices in order to rationalise CAPEX over port’s assets life cycle.
Asset Management plan

- A Risk-based methodology:

1. Functional breakdown of assets
2. Strategic issues
3. Asset Lifecycle model
4. Maintenance actions and associated costs
5. Simulation of maintenance strategies
Asset Management plan

- A Risk-based methodology:

**Functional breakdown of assets**

*According to:*
- the financial and strategic issues of the SPD;
- the accounting and technical vision of the SPD.

Functional breakdown for the boarding bridge:

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<th>Domaine</th>
<th>Sous-Domaine</th>
<th>Composant</th>
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<td>Ballasting System</td>
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Asset Management plan

- A Risk-based methodology:

  Definition of strategic issues
  - Issues of business continuity, personal and property safety and passenger comfort

  Assets Lifecycle model
  - Dynamic vision of evolution asset condition evolution

Aging law of the Guide pipe with and without actions

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Risque Pieu de guidage (20.3.0)
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- Probabilité annuelle

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- Risque sans action
- Risque - Scénario « Scénario préventif et correctif P10 »
Asset Management plan

- A Risk-based methodology:

Simulation of maintenance strategies

Simulation of costs evolution on different maintenance and renewal scenarios

Definition of the optimal investment plan regarding risk and TCO
Asset Management plan

- A Risk-based methodology:

**Simulation of maintenance strategies**

- Simulation of costs evolution on different maintenance and renewal scenarios
- Definition of the optimal investment plan regarding risk and TCO

Visualisation of the risk evolution

2021 risk matrix

2071 risk matrix without maintenance actions: Natural aging of assets

2071 risk matrix with maintenance and renewal actions: Risk management of the port
Asset Management plan

▪ Benefits:
  ▪ Robust methodology
  ▪ Simulation tool to integrate changes in port management strategies (budget and operational constraints)
  ▪ Capitalization of existing data - joint work with the port operator
  ▪ Tool allowing to communicate between the different actors – decision supporting tool
  ▪ Technical and financial vision for all the management of the port
  ▪ Support to the operational management