Port of the Future
Serious Game
(PoFSG)

TRA2020: Preparing for the Port of the Future
23 June 2020, online webinar

Wiebe de Boer (Deltares)
COREALIS

Port of the Future Serious Game
(simulation tool for decision making)

RTPORT
(5G-enabled smart terminal operations, IoT)

Brokerage Platform
(cloud based marketplace for leasing intra-CT trucks)

PORTMOD
(optimization planning tool for CT operations)

Innovation Incubator
(development of port-city innovation clusters)

Truck Appointment System
(reservation system including real-time traffic data)

Just-In-Time Rail Shuttle Service
(feasibility study for key port-hinterland corridors)

Cargo Flow Optimiser
(optimization of cargo flows ocean/rail/inland-waterway)

Predictor for Asset Management
(machine learning based Just in Time inventory)

Green Cookbook
(green energy solutions)

This project has received funding from the European Union’s horizon 2020 research and innovation programme under grant agreement No. 768994

Rethinking transport
traconference.eu
#TRA2020
Why the Port of the Future Serious Game?

Motivation:

• Ongoing port developments to accommodate economic and population growth
• “Inclusive green growth” – more attention for environmental and social aspects
• New challenges: emerging technologies, energy transition, climate change
Why the Port of the Future Serious Game?

Objectives:

• Raise awareness – simulating real-world events
• Stakeholder involvement - together explore and discuss port development aspects
• Education – multi-disciplinary thinking and different stakeholder perspectives

This project has received funding from the European Union’s horizon 2020 research and innovation programme under grant agreement No. 768994
What is the Port of the Future Serious Game?

- Setting: fictitious port
- Multiple stakeholder groups
- Each round select 2 measures
- Measures have scores:
  - People-Planet-Profit (PPP)
  - Costs and benefits
- Negotiate about measures
- Together balance PPP – inclusive green growth

This project has received funding from the European Union’s horizon 2020 research and innovation programme under grant agreement No. 768994
Scenarios and events

• Different scenarios for different learning goals (tailored to port needs/context)
• (News) Events trigger additional debate and conflict amongst stakeholders

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Learning goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate change adaptation</td>
<td>Awareness of potential consequences of climate change and adaptation measures</td>
</tr>
<tr>
<td>Energy transition</td>
<td>Awareness of measures for energy transition and its potential consequences</td>
</tr>
<tr>
<td>Economic stagnation</td>
<td>Anticipate to economic decline and its consequences for port-city relations</td>
</tr>
<tr>
<td>Innovation (emerging technologies)</td>
<td>Awareness for emerging technologies and their potential consequences</td>
</tr>
<tr>
<td>Sustainable port-city development</td>
<td>Stressing importance of stakeholder inclusion and livable port-city environment</td>
</tr>
<tr>
<td>Neutral</td>
<td>Fit-for-purpose scenario based on selected events</td>
</tr>
</tbody>
</table>
Fly through the game

- PORT OF THE FUTURE -

This project has received funding from the European Union’s horizon 2020 research and innovation programme under grant agreement No. 768994
Concluding remarks

• Focus is on raising awareness/exploration, not decision-making tool
• Qualitative rather than quantitative character
• Feedback from past experiences:
  • Nice, interactive way of learning about port developments and challenges
  • Game helped to:
    • Better understand port sustainability
    • Better understand different stakeholder viewpoints
    • Think differently
• More information:
  • https://www.corealis.eu/