2nd MTCCs WORKSHOP- TECHNICAL SESSION

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What is DocksTheFuture?
• DTF is a project funded by the European Commission under Horizon 2020.

• As a Coordination and Support Action (CSA) it will support the EC (DG MOVE and INEA) in covering coordination and networking of Research and Innovation projects, Programmes and policies.

• Starting date: January 2018 (implementation time 30 months).

• Grant Awarded: about 1,2 million Euro.

• Scope: research needed to implement new port concepts, new management models, and innovative design, engineering, construction and operation technologies solutions.

  Focus on clustering knowledge, identifying appropriate KPIs, monitoring and evaluating projects and initiatives
How to execute DocksTheFuture?
DocksTheFuture will:

- Define the “Port of Future” concept(s),
- Define the Port of the Future topics and their related targets in 2030
- Define (and use) the list of projects to be clustered together with the H2020 RIA retained proposals;

- Identify and collect appropriate Port of the Future related KPIs (“Key Performance Indicators”);

- Lead to the “Port of the Future Road Map for 2030” including number of exploitation elements such as tools for the transferability of Port of the Future solutions, R&D and policy recommendations, training packages and the creation of a “Port of the Future Network of Excellence”.
DocksTheFuture already addressed:

- a preliminary research on the “Port of Future” concept;
- the definition of several “Port of the Future topics” to be addressed and their related targets in 2030;
  - Port infrastructure and management
  - Accessibility and fulfillment of European standards
  - Integration in the supply chain and synchronomodality
  - Environmental concern
  - Sustainability
  - Safety and security
  - Digitalisation
  - Port-city relation
  - Port Governance
  - Human element
Where we are now
• Desktop Analysis of the concept including EU policies: in-depth literature review of existing studies, researches, analysis dealing with the Port of the Future concept. Main goal is gathering and analyzing information

• Stakeholder consultation: polls – interviews

• Maritime Traffic Analysis: In order to identify future trends and set priorities with regard to port development, we studied the structure of the European port landscape and the diversity among ports (traffic volume in terms of tonnes or ship calls and cargo)

• Analysis of Macro Trends: a survey on the most essential macro-trends on a global level and hence, not specifically on the maritime sector but which are assumed to have probably impacts also on ports and shipping
Energy management issues
Energy related issue for ports and terminals of the future

• Exploitation of LNG and shore based power supply for berthed ships. Apart from being an alternative fuel for ships LNG can also be used as energy source for electric engines, running turbines, since the potential for electrification of port and terminal processes is considerably high.

• Usage of energy-efficient equipment (lighting, engines, and generators).

• Using alternative fuels. Blending biofuels can reduce the emissions of diesel fuel. But using electricity has the most potential. Electricity cannot only be generated in a more clean way, but can also be recuperated.
Energy related issue for ports and terminals of the future

- **Yard Lightning**: energy efficient lights in terminals. Switching to LED lighting.
- **Cold Ironing**: commonly known as Shore Power Supply or Cold Ironing, providing electrical power from the grid to ships is a very effective method of reducing ships’ emissions at port.
- **Waste heat for district heating, industrial applications, greenhouse horticulture** or more low-threshold technologies such as electricity generation (organic Rankine cycle) or water purification (by membrane distillation).
How to cooperate with DTF
Cooperation approach 2019 2020

- Monitoring initiatives and projects all over the project timeframe is a must – findings that can contribute to the definition of the port of the future can be included in the project outcomes at any time
- Workshops with experts – to validate outcomes
- Port conference – to communicate and fine tune findings
- Stakeholders consultation via several tools
Who is involved in DocksTheFuture?
The project is coordinated by Circle srl (Italy) as the leader of the Working Group including:

ISL - Institut für Seeverkehrswirtschaft und Logistik  
(Germany)

Magellan  
(Portugal)

PortExpertise  
(Belgium)

University of Genoa  
(Italy)
Specific subcontractors for:

- for the Port of the future concept (TU Delft)
- For the port-city relation (AIVP)
- For sustainability (Llyod’s Register)

- 1,600 already identified stakeholders via www.onthemosway.eu;
- Direct involvement of the 329 TEN-T core and comprehensive ports;
- Engagement of more than 30 experts in the different identified topics, including clustered projects managers and Associations / EU Platforms (e.g. Alice);
- Advisory Board (5 top experts)
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