FRÅN PAPPIRSJÖKORT TILL DIGITALISERADE RUTTER OCH INTEROPERABILITET - SJÖFARTEN - EN BRANSCH I OMVANDLING

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Trends

- Autonomous vessels / safety
- Inter-modality
- Connectivity
- Efficiency
- Safety
- Digitalization
  - Route exchange
  - PortCDM
  - Digitized seacharts
- AIS
- Environmental sustainability
GLOBAL AIR TRAFFIC
Global maritime traffic – similarity?
THE CONNECTED USER: A NEW CENTRE OF GRAVITY
CONCERNS OF SEA TRAFFIC MANAGEMENT

The problem: The need to increase efficiency in operations within and between ports

- Maximize the utilization of the facilities in ports
- Minimize the use of energy to steam between two ports

Optimal bunker use (from berth to berth)

Right routing (-12%)

Green steaming (-25% for anchoring vessels)

constrained by safety considerations
THE VOYAGE IN FOCUS

Voyage Optimization & Traffic coordination

Port Call Synchronization

Co-financed by the European Union
Connecting Europe Facility
STM STRATEGIC CONCEPTS & OPERATIONAL SERVICES

Voyage management
Support planning and dynamic re-planning

Flow management
Area management and flow optimization

PortCDM
Approach and Port synchronization

Voyage Optimization & Traffic coordination
Port Call Synchronization

Co-financed by the European Union
Connecting Europe Facility
DESIRED PORT CDM EFFECTS

- Fast turn-around
- Optimal resource utilization
- Just-in-time operations
- High degree of predictability
- Minimal waiting times
- Green Steaming

Vessel

Port

Port operator

Co-financed by the European Union
Connecting Europe Facility
Sea Traffic Management Test Bed Launched in Norway

Published: August 10, 2016

The Norwegian Minister of Transport Ketil Solvik-Olsen logged in and officially inaugurated the Port of Stavanger test bed. All necessary instruments and data have now been installed.
KPI's cruise vessels:

- Punctuality
- Predictability
- Berth productivity

PortCDM: Port of Stavanger – Launched 15.Aug.16

Actors involved in LL#:

- VTS
- NCA
- Pilot
- Port authority
- Linesmen
- Agent
- Security
- Waste
- Terminal owner/operator
- Viktoria ICT
Identify processes: cruise vessel

• Collect data:
  • all information between stakeholders (Oriana and Balmoral)
    • by fax, email, phone, face-to-face, machine-2-machine etc.

• Sort information
  • Spaghetti_map and timeline_map
  • Constructing event_catalogue
  • Resulting in States_metromap_Stavanger
  • Stating events that different actors coordinate against
  • Showing events that different actors coordinate against

• CONTRUCTING THE PORT SPECIFIC METROMAP

<table>
<thead>
<tr>
<th>States Metromap</th>
<th>State name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departure Previous Port</td>
<td>Departure_Vessel_PreviousPort</td>
</tr>
<tr>
<td>Arrival Port RQ</td>
<td>PortVisit-Requested</td>
</tr>
<tr>
<td>Arrival Vessel Confirmed</td>
<td>PortVisit Confirmed</td>
</tr>
<tr>
<td>Mooring RQ</td>
<td>MooringOp-Requested</td>
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<tr>
<td>Mooring RQ</td>
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<td>MooringOp_Confirmed</td>
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<td>Gangway_Request</td>
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<td>Confirmed</td>
<td>Pilotage_Confirmed</td>
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<tr>
<td>Crewlist &amp; Pax distributed</td>
<td>?</td>
</tr>
<tr>
<td>Crewlist &amp; Pax Received</td>
<td>?</td>
</tr>
<tr>
<td>Towage RQ</td>
<td>Towage_Request</td>
</tr>
</tbody>
</table>
STATE DRIVEN COORDINATION
Towards full utilization of PortCDM in Port of Stavanger

- Include all vessel_type

- Include all major quays / terminals in the region
  - Setup polygons to SSPA AIS
  - 12 UN LOCODE
  - Currently we are running test bed for UN LOCODE NOSVG.

- Include all stakeholders (or at least as many as possible).

- 300 vessels connecting!

- More automatic connectors
  - NCA SafeSeaNet
  - SSPA AIS
  - InPort (shiplog, mobile app states e.g. services)
  - SeaNapp
  - PACT

Awaiting connector library…….

http://nosvg.portcdm.eu/port/home
CLOSE TO

business
the North Sea
culture
the fjords

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