SEA TRAFFIC MANAGEMENT VALIDATION PROJECT

Co-financed by the European Union
Connecting Europe Facility
MIDTERM CONFERENCE

Co-financed by the European Union
Connecting Europe Facility
Sept 12 Session 1

- Welcome to Italy
- STM and MoS
- STM and other EU developments
- STM and Malaysia
- The Maritime Revolution – Keynote
- The STM test bed goes live
- Coffee & Demos
WHY STM_IT

STM is part of the Italian Transport Policy Priorities:
→ Ministerial Decree n. 212 of 15 June 2016

Expectations:
1. PPP – roles of Public and of Private in e-navigation implementation
2. Coherency in interoperability and data sharing (e.g. NMSW)
WHAT STM_IT IS

→ STM_IT is a tool for MIT’s e-government deployment
→ Italian (extended) Shore Center is the first prototype of the e-administration platform

As of 31/08/2017:
237 ships connected to Italian Shore Center (cruises, ferries & ropax, containers, tankers)
4 shore centers
EXPECTATION #1 PUBLIC–PRIVATE PARTNERSHIP (PPP)

- Port-CMD PCS (STM Act. 1)
- Fleet Operation Center (STM)
- Cooperative Ships (STM equipment)
- Ship Construction File
- Ship e-certs (CeDA - AnNA)

- Ship Operation Center (STM)
- Container Verified Gross Mass
- EMSN Simulator (STM – Act. 3)
- Crew e-certs (ML)
- Other simulators

- Electronic Log Book
- Indoor positioning system (ML2)
- A-modality BoxTech

- NMSW – EU Message
- NMSW – IT
- Revision NMSW – EU Message

- Flag Fleet Operation Center (STM)
- Port maneuvering
- SECA – NECA Compliance

- Man over board (Picasso)
- Safe port operation (ML2)

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EXPECTATION #2 INTEROPERABILITY

1) Inauguration of the STM_ITA e-Administration

2) Demos:
   - Ship Energy Monitoring
   - Ship e-Certificates
   - e-log books – Oil Record Book

Based on the B2MSW standard Message (PMIS)
Isabella De Monte
Member of European Parliament
TRA Member
Deputy Head of PD Delegation at the EU Parliament
MOLTO GRAZIE!
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Revision of the RFD - EMSW environment

STM Midterm Conference
12 September, 2017
Policy context

- President Juncker's 10 priorities
  - 1st Growth, including reduction administrative burden
  - 2nd Digital single Market
- Digitalisation of transport: improving efficiency and reducing emissions
Reporting Formalities Directive (RFD) 2010/65 in a nutshell

- Objective = trade facilitation by simplifying and rationalising reporting formalities, reducing red tape in maritime transport
- MS shall accept electronic reporting via a Single Window no later than 1 June 2015
- SW is the place where all information is reported once and made available to various competent authorities
- Linking SafeSeaNet, e-Customs and other electronic systems
- MS shall make relevant parts of such information available to other MS upon request, via SafeSeaNet or e-Customs
- No technical specifications imposed
MARITIME SINGLE WINDOW

**RFD: Evaluation and revision**

- Shortcomings:
  - Harmonisation only at national level
  - Clearance functions not included
  - ‘Reporting only once’ is not achieved: no re-use of data
  - Nationally required data is excessive and non-harmonised
  - No delegated powers for the adoption of binding technical specifications
  - No governance method to ensure technical maintenance and update
BEFORE
Multiple reports from vessels to multiple authorities, each send separately

- ship stores declaration
- crew effects declaration
- crew and passenger lists
- cargo declaration etc.

- ship stores declaration
- crew effects declaration
- crew and passenger lists
- cargo declaration etc.

Port 2 in the MS
- Port authority
- Maritime authority
- Customs etc

Port 1 in a MS
- Port authority
- Maritime authority
- Customs etc

NOW
Vessel reports transmitted electronically to all authorities once per port call

- ship stores declaration
- crew effects declaration
- crew and passenger lists
- cargo declaration etc.

- ship stores declaration
- crew effects declaration
- crew and passenger lists
- cargo declaration etc.

Port 2 in the MS
- All authorities

Port 1 in a MS
- All authorities

FUTURE
Maritime transport related data to all relevant administrations and authorised operators.
No submission if no new info, existing info considered valid.
Support for optimised port ship and cargo operations.

Sending updates
- voyage
- cargo
- crew
- etc

Sending updates on
- voyage
- cargo
- crew
- etc

Port 2 in the EU
- All operators

Port 1 in the EU
- All operators

e-Maritime environment
- all ship related data
- all cargo related data
- inter-modality links

=> DTLF multimodality
European Maritime Single Window environment

Graph 2: TOMORROW

All information is provided in one single submission (red arrow)
There is one harmonised interface for reporting in all Member States
No possibility for additional requests
Data is re-used for the purpose of 'reporting only once' and for optimisation of maritime and logistic chain operations
European Maritime Single Window environment

Graph 3: HOW?

1st deliverable
"Framework" Regulation (2018/94)
- EU harmonised interfaces
- eManifest

2nd deliverable (2019/4)
Maximum data set harmonising and limiting additional requests

3rd deliverable (2019/4/2020/Q1)
Conditions for access and re-use of data

eMaritime STM

DTLF Digitalisation of transport
Challenges of digitalisation

- Legacy or proprietary standards
- Process digitalisation and re-engineering
- Data ownership, data sharing, access to data, re-use of data
- Lack of trust/data confidentiality/data protection /cybersecurity
- Non-recognition of electronic information
- Governance
- Big data, added value creation
- Existing investments
- Will (local, national, global)
European Maritime Single Window environment

Planning

- Public consultation: October to December 2017
- Targeted consultations: October to November 2017
- Legislative proposal: March/April 2018

Please participate!
THANK YOU!

Jukka Savo
European Commission
Maritime Transport & Logistics
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MALAYSIA

Coastline: 4675 km
Maritime zone: 574 000 sq km
Major shipping lane: the busiest strait of more than 80 000 vessels transiting
Ports of Malaysia

- Total trade: RM 1.48 trillion
- Cargo throughput: 568 million
- Containers: 24 million
- Ship arrival: 60,362
- GRT: 766,368,000
- Port Klang: ranked 11th in the world
VTS LANGKAWI
Activities within Sea Traffic Management Validation Project

**Activity 1: Port Collaborative Decision Making**

Port Collaborative Decision Making (Port CDM) services will increase the efficiency of port calls for...

[READ MORE]

**Activity 2: Voyage Management**

Voyage Management services will provide support to individual ships in both the planning process and...

[READ MORE]

**Maritime Simulator Network Test bed**

Chalmers University of Technology

[READ MORE]

**Maritime Service Infrastructure**

OFFIS

[READ MORE]
conclusions

• STM will improve efficiency in shipping; enhance safety of navigation and protect the marine environment.

• Malaysia can take active part in STM
Thank you

rossid@marine.gov.my
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Sea Traffic Management Services
Creating a safer, more efficient and environmentally friendly maritime sector

STM

Route Cross-check

Route Optimization

Enhanced monitoring

Ship to ship route exchange

Port call synchronisation

Port call optimisation

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STM architecture
Going Live!

Peer-to-peer
Secure transmission
Authenticated id’s
Access controlled
INTEROPERABLE!

STM ship system
Connector
Voyage information service
Larger Scale available

Internet

Connectors
Voyage information service
Shore based services

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Voyage scenario

- m/v AURORE II
- Route USNYC – SEGOT
- PTD 12-09-2017 UTC 20:00
- PTA 21-09-2017 UTC 07:45 (PBP)
- Services in use
  - Nordic Pilotage Route Service
  - SMHI Weather Routing
  - Gothenburg Port CDM
- Voyage plan sharing
  - Ports Dep & Arr.
  - Service providers
  - Shore Centre (VTS)
  - Fleet Operation Centre
INFRASTRUCTURE FOR COMMUNICATION AND INFORMATION EXCHANGE
THINK DIFFERENT
MAKE THINGS HAPPEN
MAKE A DIFFERENCE
SMHI

The Swedish Meteorological and Hydrological Institute

In a strategic alliance with GAC (Gulf Agency Company)
Dep: New York

GC to Pentland

RL

RL to the channel

Dest: Gothenburg
Speed setting 18,0 kts gives an ETA interval about 6 hours (which means the forecast is very CERTAIN)
This vessel saved 319 mt fuel ... or +100 000 USD and Arrived on time!

10 000 TEU container vessel in Aug/Sep 2017 ...saving on one single sea passage!

<table>
<thead>
<tr>
<th></th>
<th>Intended Route</th>
<th>Rec. Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (nm)</td>
<td>4897</td>
<td>4621</td>
</tr>
<tr>
<td>Total Steaming Time (hrs/d)</td>
<td>251.5/10.5</td>
<td>251.4/10.5</td>
</tr>
<tr>
<td>Average Intended Speed (kts)</td>
<td>20.40</td>
<td>18.75</td>
</tr>
<tr>
<td>Weather &amp; Current Factor WF/CF (kts)</td>
<td>-0.90</td>
<td>-0.33</td>
</tr>
<tr>
<td>Average Speed Over Ground (SOG) (kts)</td>
<td>19.50</td>
<td>18.42</td>
</tr>
<tr>
<td>Calculated Total ME Consumption (mt)</td>
<td>1430.5</td>
<td>1111.2</td>
</tr>
</tbody>
</table>

Optimised ME load 43% of MCR

It’s all about

TRUST !!!

STM is good: Standardised route format (rtz) and increasing transparency !!!
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Demos

• Italian STM solutions
• PortCDM applications
• Transas STM ship & shore centre solutions
• Carmenta SAR solution for Rescue Centres
• Analysis tools