CRUISING TOWARDS A SAFER, MORE EFFICIENT AND ECO-FRIENDLY SHIPPING FUTURE

ULF SIWE, SWEDISH MARITIME ADMINISTRATION
WHAT IS STOPPING US?

1 vs 50
What is the industry doing?

- Common ship reporting
  - Maritime Single Window
  - FAL
  - EU
  - …

- Aiming at standardised information sharing
  - For goods
  - For ships
Governmental priorities – example: EU Motorways of the Sea

Three pillars

• **Safety**, Traffic Management and Human Element
• **Environment**
• **Efficiency**, Integration of maritime transport in the logistics chain
Sea Traffic Management

From
Safety
Sea Traffic Management

From Safety To Environment

Reality  Optimal
12% less emission
Sea Traffic Management

From Safety To Environment and Efficiency

20%
Information sharing

• Standards
• Interoperability
• Authentication
STM architecture, technology
STM architecture, technology

STM

MCP: Authentication and service discovery
STM architecture, technology

IEC: SECOM, secure exchange and communication of S-100 products
Standards – the foundation of STM

• Data formats
  • IEC 61174, ECDIS standard: RTZ route exchange format (S-421, work in progress)
  • S-124, IHO standard for navigational warnings
  • S-211, IALA standard for event timestamps for port calls
  • Port Information Guide by PCOTF, IHMA, British Admiralty, GS1, IAPH

• SECOM standard (API)
  • IEC S-100 standard for exchange of S-100 products, work in progress, voting planned for early 2021.

• Authentication of users and service discovery
  • Maritime Connectivity Platform.

• Industry consortium is forming to sustain interoperability
  • Compare to bluetooth, GSMA, usb etc.
What’s in it for me???

- Just technical mumbo-jumbo
[Placeholder for film STM Services in Practice

Ships and Ports Need to be Connected!

Connected ports (origin)

Port call optimization

Port-to-port collaboration (optimization and synchronization)

Connected ships

Port call synchronization

Connected ports (destination)

Enabling connectivity to hinterland for sustainable transport systems

Enabling connectivity to hinterland for sustainable transport systems
Port Synchronisation in Practice

ETA 03.00
RTA 12.00
ATA 08.00
Testbed included

311 ships

9 ports

6 service centres
(VTS, JRCC, FOC)

12 simulator centres
Carnival Rolls Out Sea Traffic Management for Full Fleet

BY THE MARITIME EXECUTIVE 2019-07-04 10:07:49

Carnival Corporation has agreed to integrate its entire fleet with the EU’s Sea Traffic Management (STM) Validation project. Following a successful trial with Carnival's Costa and Aida-brand ships, the rest of the Carnival Corporation fleet has now been added.

Carnival's Costa Crociere division integrated STM support into its Fleet Operation Center software, Neptune. This functionality allows it to interact with other STM services, ports and shore center operators.
Port Flow Optimisation in Gävle and Rauma

• Port Call Synchronisation, Port Call Coordination
• Information sharing with hinterland connections (e.g. rail)
• Automated pilot ordering and pilot administration in Gävle
Demo lines & use cases
RTF project – output base

potential volume in the Baltic Sea controlled by Schenker

For example:

- FI-DE 13,000 units p.a.
- FI-SE 20,000 units p.a.
- DK-DE 5,000 units p.a.
- FI-IT 6,000 units p.a.
- SE-IT 6,000 units p.a.
- NO-DE 5,000 units p.a.
- DE-SE 15,000 units p.a.

All units shipped currently without real time information
Consequences in case of delay/cancellation

- **Hard factors**
  - no possibility to plan reliable uses of staff and equipment (lorry, trailer, tugmaster, forklift, etc.)
  - overtimes of staff
  - inefficient / low utilization of the capacities and logistic facilities
  - delays in delivery and waiting times for subcontractors

- **Soft factors**
  - low performance in the whole supply chain due to lack of information
  - bad KPI performance - more and more a relevant indicator for delivery reliability on a clients side
STM supports VTS

- Improved situational awareness for VTS operators
- “The biggest step for VTS since AIS”

- STM a requirement for Swedish VTS procurement
- Also happening in Finland, Estonia, Malaysia, Croatia and more
Q & possibly A
Maritime digitalisation – a use case

• **NAVTEX (NAViational TElEx)**,
Navigational Warnings

- Reduced work load
- No manual errors
Thank you!