





PORTCOM IN TWO PROJECTS





- Definition of the Sea Traffic Management concept
- 39 Partners
- 24 MEuro



STM validation project (2015-2018)

- Validation of the Sea Traffic Management concept
- 57 partners
- 43 MEuro







CONCERNS OF SEA TRAFFIC MANAGEMENT

The problem:

The need to increase efficiency in operations <u>within</u> <u>and between</u> 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

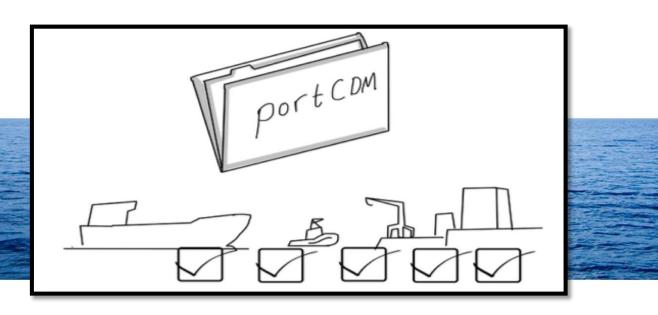
(-25 % for anchoring vessels)

constrained by safety considerations





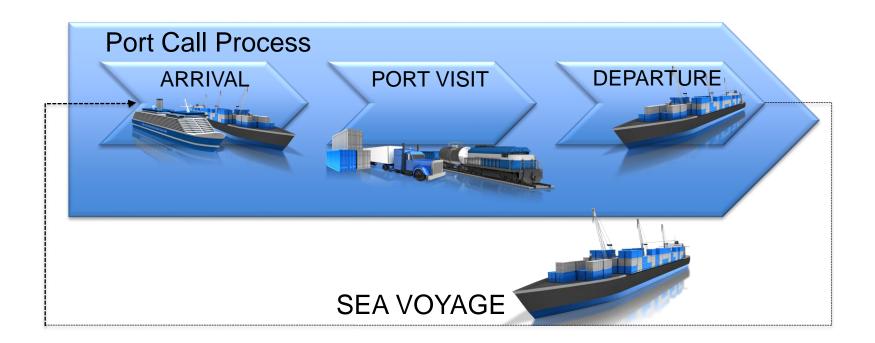
PortCDM – THE MOVIE



https://www.youtube.com/watch?v=ZS5SjDAol90

ON SEA TRAFFIC MANAGEMENT

SCOPE IN PortCDM



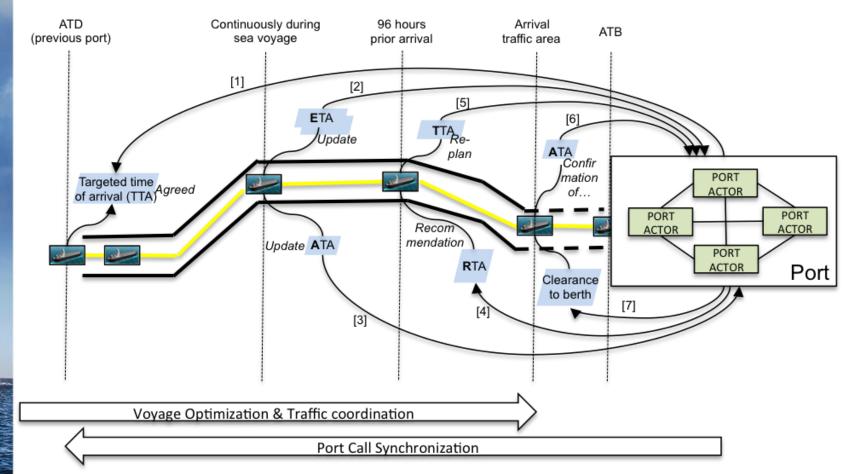








THE VOYAGE IN FOCUS

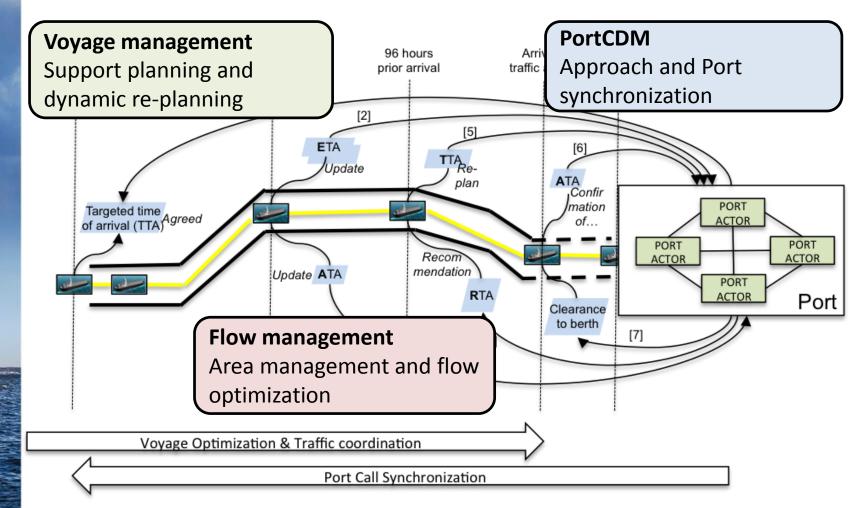








STM STRATEGIC CONCEPTS & OPERATIONAL SERVICES









POINT OF DEPARTURE FOR PortCDM

Why?

- Jointly we know a lot
- Increased predictability requires collaboration
- Collaboration requires communication
- Communication requires unified, precise language and contextual understanding

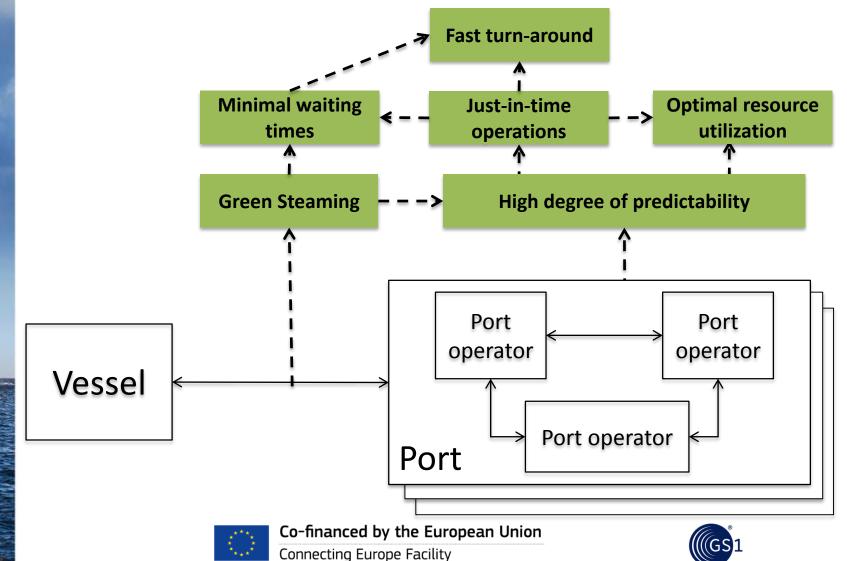






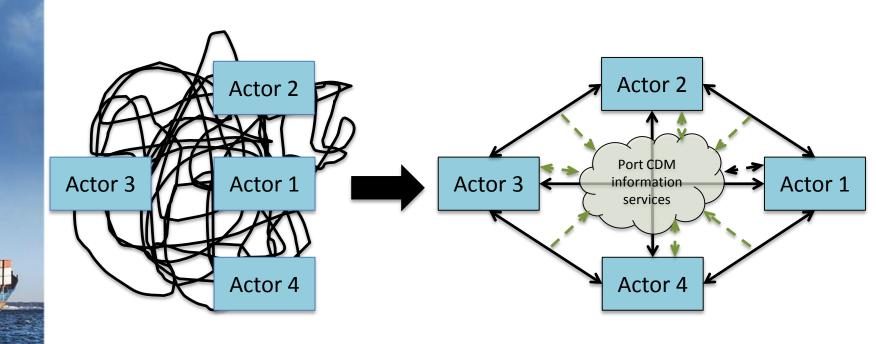


DESIRED PortCDM EFFECTS





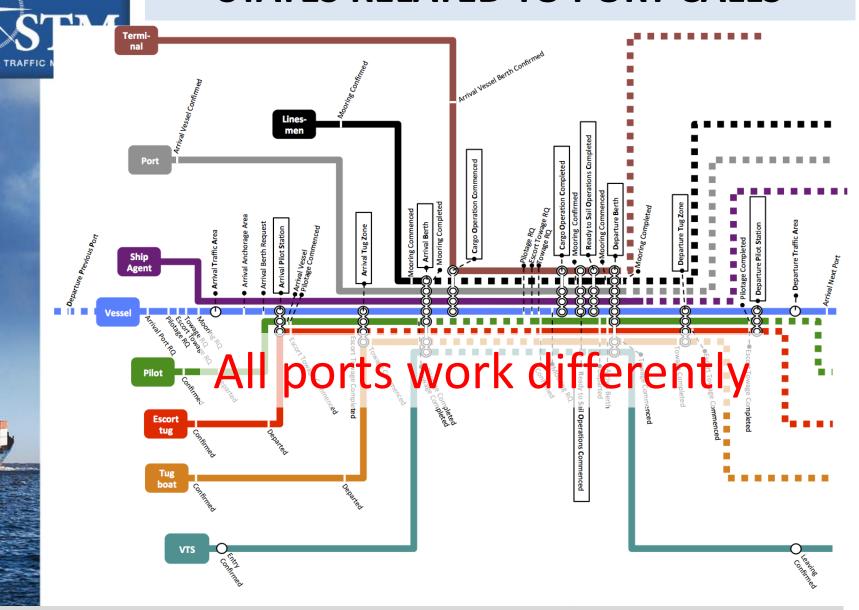
TOWARDS SYNCHRONIZED INFORMATION SHARING







STATES RELATED TO PORT CALLS



Lind M., Haraldson S., Karlsson M., Watson R.T. (2016) Overcoming the inability to predict - a PortCDM future, 10th IHMA Congress – Global Port & Marine Operations, 30th May – 2nd May 2016, Vancouver, Canada

THE INDUSTRY NEEDS

An optimized port call is when the vessel reaches an agreed location at a specific time and all necessary facilities and services are ready to receive the vessel ensuring an optimal turn around in the port

- Increased need for inter-operability between actors engaged in port calls
- A digital platform that enables structured sharing of timestamps between involved actors and provides situational awareness for actors' decision-making
- Today, no standards exists for exchanging timestamp messages related to port call enabling enhanced situational awareness

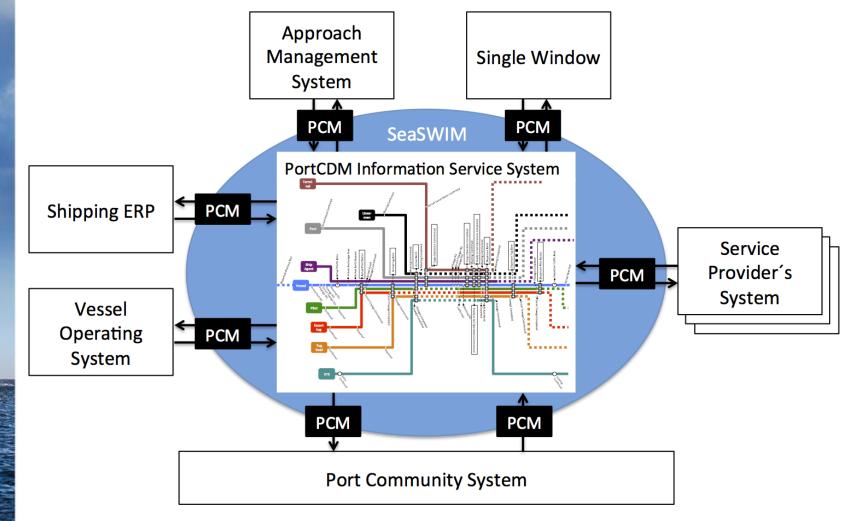








INTEGRATING WITH EXISTING SYSTEMS AS THE SOURCE

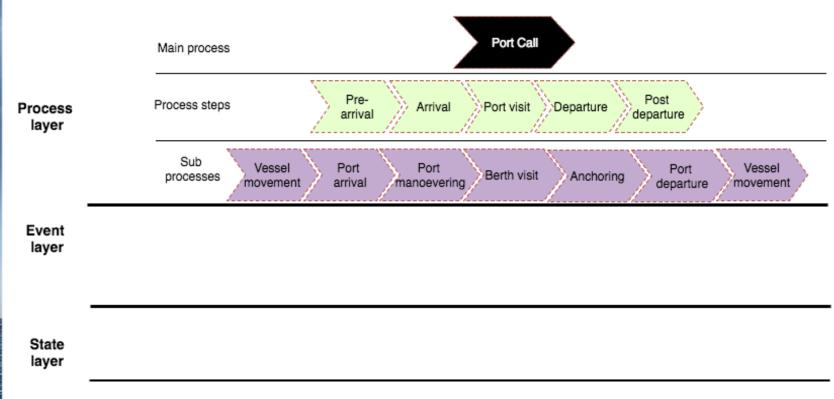








PORT CALL LAYERED MODEL

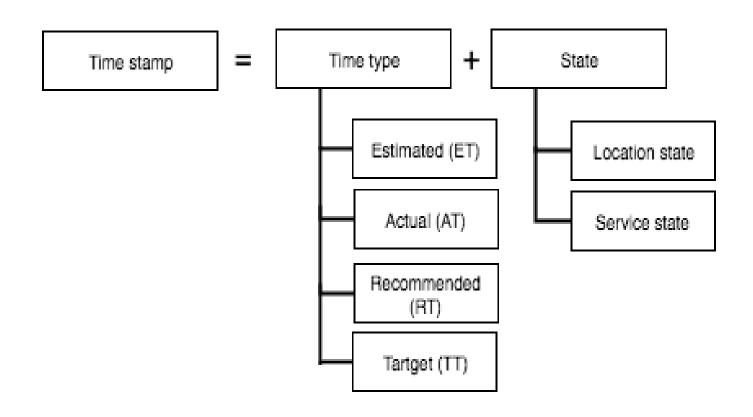








STRUCTURE OF A TIME STAMP



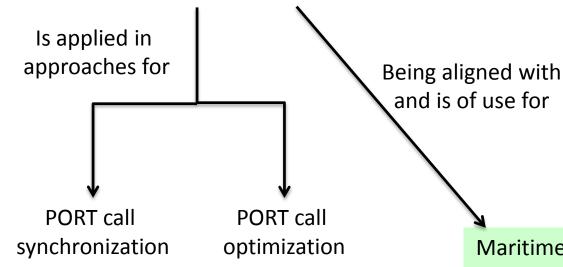




Is built upon and has been a source

for the development of

PORT CALL MESSAGE STANDARD



FACILITATION COMMITTEE 40th session Agenda item 17

30 December 2015 Original: ENGLISH

ANY OTHER BUSINESS

nformation concerning the development of uniform definitions of ship port operations in support of safe, efficient and sustainable transport logistics

Submitted by International Harbour Masters' Association, BIMCO, International Association of Ports and Harbors, International Bulk Terminals Association, ICHCA International Ltd., International Marine Contractors Association, InterManager, International Port Community Systems Association, International Parcel Tankers Association, International Transport Workers' Federation, World Nuclear Transport

Open electronic platforms and digital applications assisting ports and ship managers improve the efficiency of operations are under development but this development has been hampered by the absence of internationally agreed definitions of ship port This paper provides information about industry discussions to develop agreed descriptors of events during a ship's arrival, stay and departure in port.

Strategic direction:

High-level action

Planned output.

No related provisions

Related documents: FAL Convention (2005 Amendments): FAL 38/5/2

Shipping worldwide makes use of identical events in their log books, regardless of the type of ship. These events have never been defined, formalized or brought in line with the definitions of events that are used in ports. The intention is to harmonise understanding of events both onboard and onshore related to the arrival, stay and departure of the ship in port and in the port approach. Computer software and digital applications using uniform events will result in more streamlined processes between ship and port.

A common understanding of ship port operations will enable electronic message formats to be developed that will be understood by all parties.

Maritime authorities (IMO), Port authorities and other port actors, BIMCO, Shipping companies, Service Providers, (Bridge) Equipment suppliers, Platform providers, Standardization organizations (like GS1)

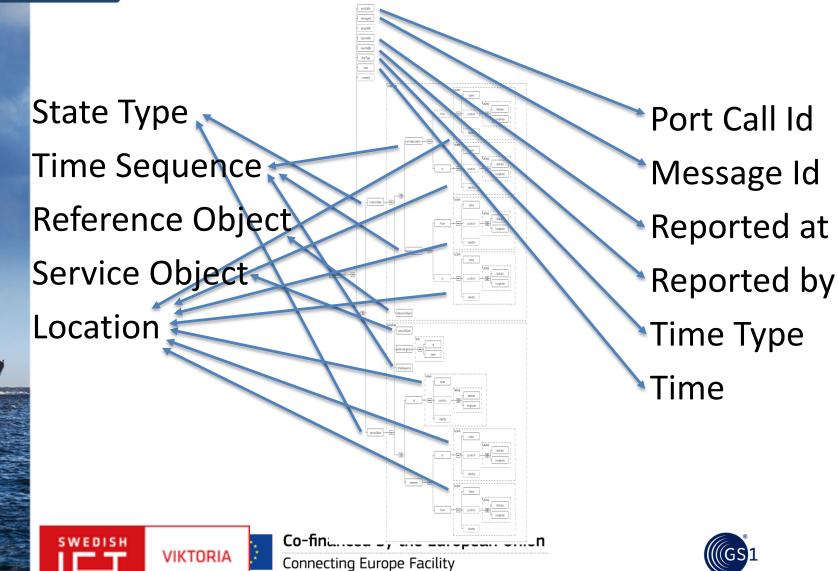








PORT CALL MESSAGE



GS1 STANDARDS SUPPORTING STM AND PortCDM (1)

EPCIS offers great potential!

- Proven for sharing physical event data
- Lacks coverage for important event information in Maritime and Ports (M&P) context
- GS1 committed to support adding M&P data elements to EPCIS Business Vocabulary









GS1 STANDARDS SUPPORTING STM AND PortCDM (2)

Extending the GS1 system

- Unambiguous identification for Vessel Voyage
- Unambiguous identification for Port Call
 Vessel at Port, Plane at airport, truck at warehouse are all forms of Slot Management operations.
 - => Potential for Mode Independent Slot Identification
- Sharing future event information
 Expected/Estimated, Recommended, Planned/Target

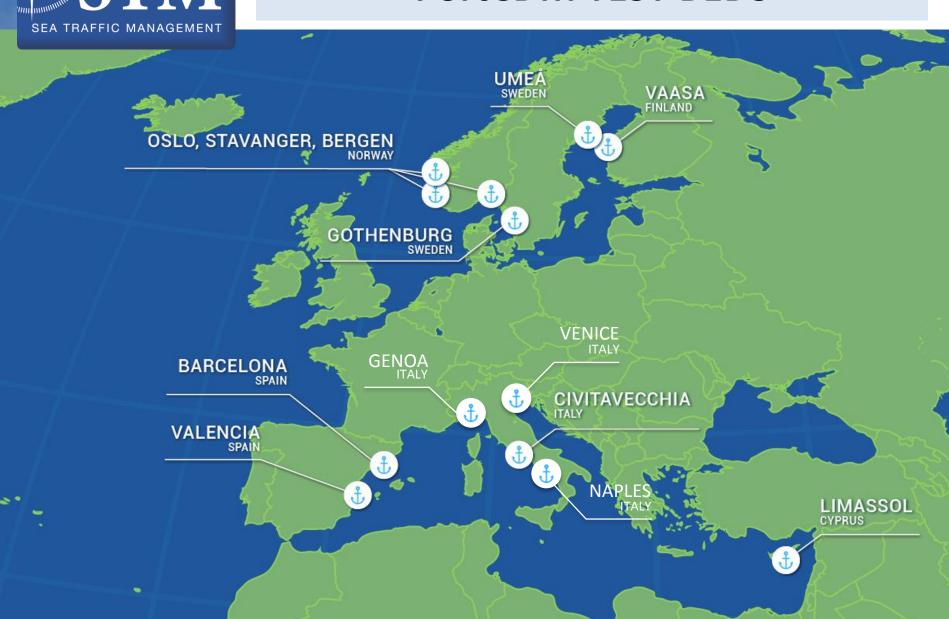








PortCDM TEST BEDS





CONCLUSIONS

- > The port call process is a complex sequence of activities
- The basic unit of analysis is the timestamp
- Increased need for precision in timestamp communication
- ➤ The better the information about current status, the better the possibility to coordinate for the purpose of optimization and synchronization
- ➤ A great potential in an enhanced EPCIS (for ship-to-shore interaction) which has been initiated as a collaborative effort driven by GS1









THINK DIFFERENT

MAKE THINGS HAPPEN

MAKE A DIFFERENCE



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