International Taskforce

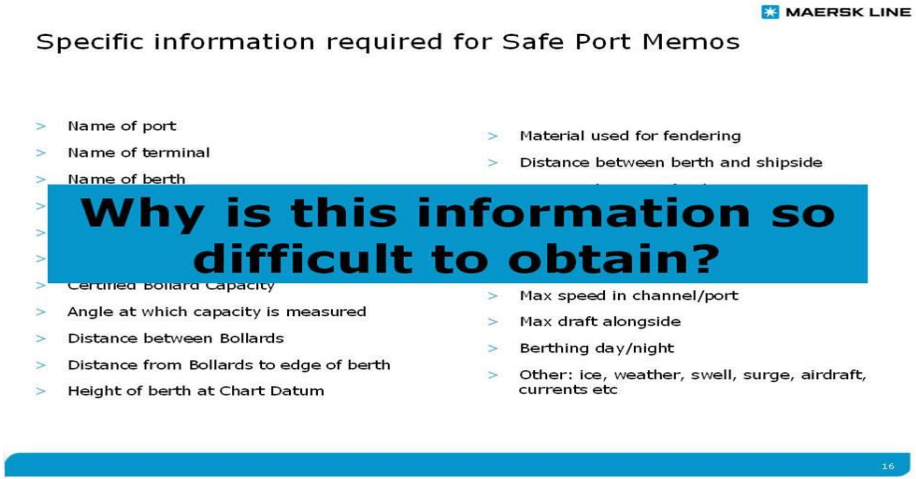
Port Call Optimization

Port Call Optimization

Request for data quality

For optimizing:

- Maritime industry function in the supply chain
- Deadweight
- Speed / Emissions / Bunker savings
- Port stay
- Safety
- Berth utilization
- Hinterland connections
- Resources port services



Present situation

Ports and shipping use their own standards

- Shipping operates in a network of up to 9,000 different ports
- Ports can receive up to 55,000 different ships
- Both shipping and ports use different standards and location identifiers

Present situation

Data not from data owner

Data owner:

- Is not aware of / does not want ownership
- Is not aware of consequences not sharing data
- Is different per country, per state and even per po

Data is collected through other sources:

- Agents / Surveyors
- AIS data, sensor data, or big data

If data is not from data owner:

- Data becomes corrupt
- Data is not binding

Present situation

Less efficient communication

- Less efficient means of communication, often one to one
- Today there is no global, neutral, not for profit platform to share data

Present situation

No data quality assurance

- Only looking at the data, there is no difference between ports with a good or bad reputation
- Data quality comes by use and feed back of users – today there's none

Present situation

Summary

- Not possible to cross check data
- Not possible to share data
- No alerts if data has changed
- No data quality indications
- No binding data / data owner ship
- Many parties working for the same ship use different data

Data quality is key for Port Call Optimization

Decision as good as the data

- There will never be one global solution or data base
- As a minimum we should have one global sustainable standard for interoperability between all types of shipping, terminals, ports and hinterland
- Based on global, existing, open industry standards for quick implementation and endorsement by industry
- Allowing global port to port operations for ships
- Allowing local ship to ship operations for ship/cargo services

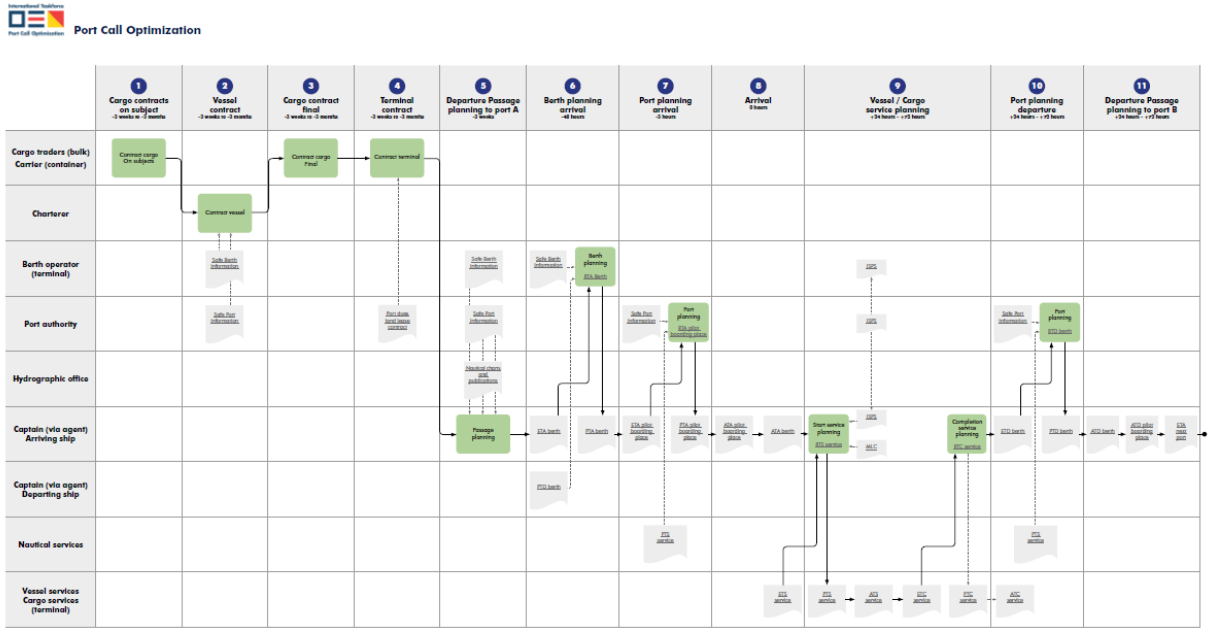
Agenda – update 11/06/19

1) Agree on business process of port calls
2) Agree on minimum scope of data
3) Agree on functional definitions
4) Use of functional definitions by industry
5) Agree on data model and formats
6) Use of data model and formats by industry
7) Agree on quality ISO label
8) Use of ISO quality label by industry
9) Local roll out by industry
10) Global roll out by industry

1) Agree on business process of port calls

Done Q2/14

- Every port is dealing with the same Bimco contracts, IMO resolutions - business process based on that
- Important is to identify scope of data and data ownership
- Important to have a common understanding of the port call process

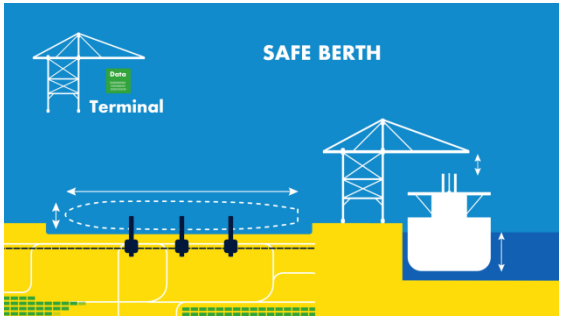


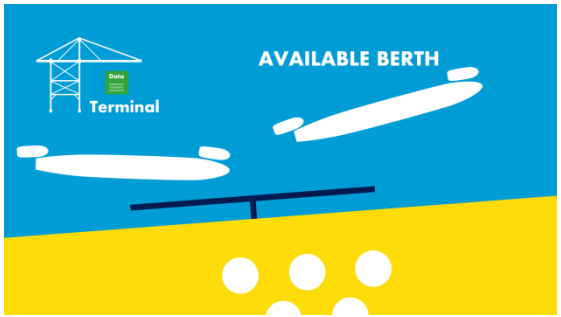
2) Agree on minimum scope of data

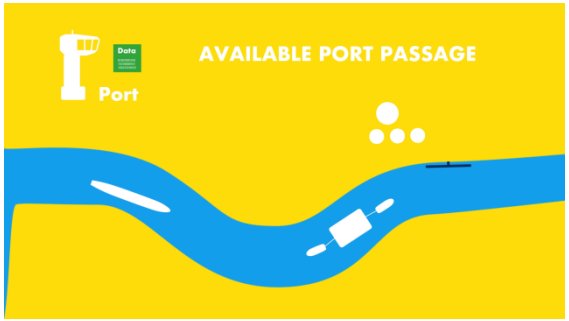
Done Q3/15

- Based on business process, to be compliant no. 1 priority
- Other things are nice to have
- Appendix to business process has been written with detailed data per process step

➢ *Add review comments Q3 2019*







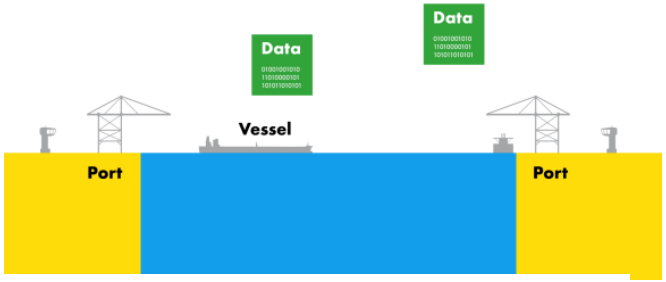
3) Agree on functional definitions

Done Q3/17, update Q4/18

- Functional definitions are a must, no room for misinterpretation
- Based on existing industry standards

➢ *Feed back of ITPCO members, Chain ports, update in version 5.5*

➢ *Maintenance through GS1 Maritime & Ports workgroup and connection to ISO QX 20XX*

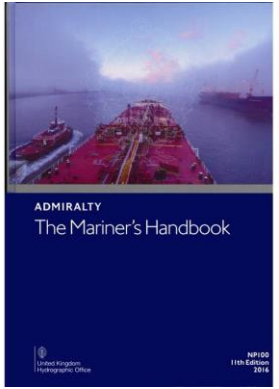


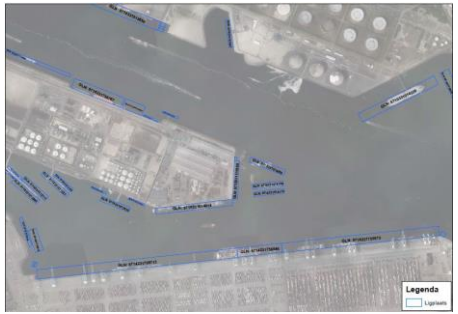
4) Use of functional definitions by industry

Done Q3/17, update Q4/18

- In publication NP100 December 2019
- In ports
- In IMO FAL 43/7/1 submission
- In Terms & Conditions

- *Check with STM group*
- *Provide data elements to IMO FAL WG re. port to ship data through BIMCO / IMO member states Q3 2019*
- *GS1 started process to include IMO number into EPCIS standard QX 20XX*
- *GS1 part of the UN/CEFACT Smart Container development QX 20XX*





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Progress since FAL 42

4 Since FAL 42, extensive progress has been made in the intersessional informal Correspondence Group by incorporating references to international standards developed by WCO, UNECE and ISO into the compendium.

5 However, the compendium only represents a part of the information that is normally exchanged between the ship and shore, as the ship often has to submit additional data to the port, in order to get clearance. The following list comprises data sets, which are not yet covered by the IMO reference data model (the below is not prioritized):

.1 health information (e.g. WHO health declaration);

.2 port logistic operational data and real time data (e.g. International Harbour Masters' Association (IHMA) "Functional definitions for nautical port information");

ORIGINAL

TIME CHARTER PARTY FOR OFFSHORE SERVICE VESSELS:
CODE NAME: "SUPPLY TIME 89" PART I
1. Place and date

LE HAVRE, 25TH MAY 1998

2. Disponent Owners/Place of business (full style) (C1.1(a))

5) Agree on data model and formats

Q4/18

- For real time data exchange compatibility is key, however interfaces are possible
- For real time global data exchange the use of unique global ID's are essential. For company or local use other ID's will suffice

- ➢ *Publish functional and data definitions together in Port Information Manual version 1.3.1 Q2 2019*
- ➢ *GAP analysis with ISO standards Q2 2019*
- ➢ *After full operational test in multiple ports a Product Specification to be provided to IHO –in the mean time liaison with WG S100/NIPWG Q4 2020*

6) Use of data model and formats by industry

XX / XX

- *Testing in port to port and ship data exchange – Q4 2019*

➢ *GS1 started upgrade EPCIS to use JSON format for modern API's and to facilitate sensors QX 20XX*

7) Agree on ISO quality label

XX / XX

- Functional definitions, data definitions and applications are not sufficient for data quality, security, compatibility
- Verification of data by hydrographic office causes delay in update of ENC
- Developed by more than one class society for confidence of market
- Port Information Manual can be blue print

- *Look into option to align with ISO Certification (ISO 9001:2015) of International Hydrographic Organization as per IHO resolution 1/1997, section 4 together with Class, to combine with compliancy with the IHO standards*
- *Check if such ISO also supports port data bases of shipping lines / charterers / brokers*

8) Use of ISO quality label by industry

XX/XX

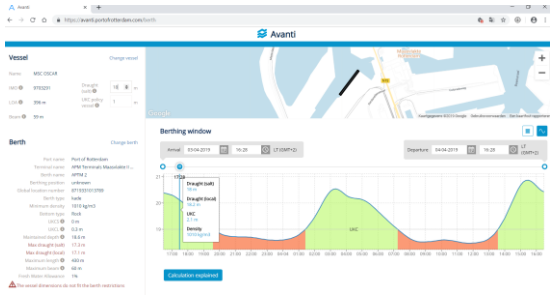
- *Proof of value to industry*

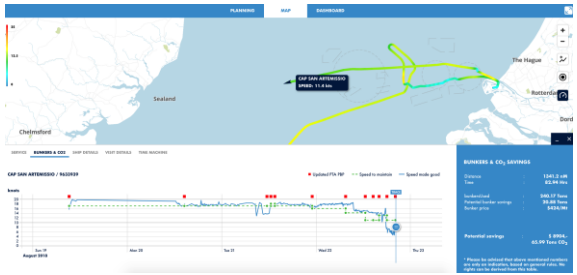
9) Local roll out by industry

2019

- One data set for port areas, waypoints and sections
- Adding master data
- Adding event data

- ➢ *Working together with UKHO for basic identification of port, terminal, berth and related way points*
- ➢ *Connect attributes for master data*
- ➢ *Connect attributes for event data*
- ➢ *Collecting experiences for publication in Port Information Manual*





10) Global roll out by industry

XX/XX

- Tooling for ports to identify locations
- Publish Best Industry Practices for master and event data
- Study options for data sharing platform

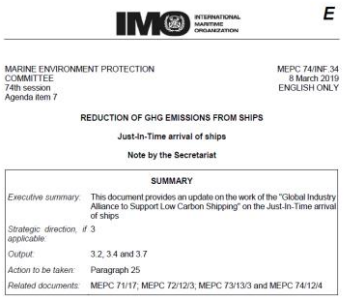
- *Locations: tool for mapping port areas, waypoints and sections*
- *Master data: UKHO, IHMA, IAPH, STM, ITPCO Port Information Manual. Additional paragraphs: passage planning and data ownership Q4 2019.*
- *Event data: IMO GIA: Just In Time Arrival Guide in combination with Port Information Manual Q4 2019*
- *Data sharing platform: looking into airline industry with IMO GIA / WPCAP and current reporting practices (not for profit, neutral, not selling data) Q4 2019*

10) Global roll out by industry
XX/XX

- Bringing initiatives together under IMO and GS1for global roll out

For now working together with:

- *IMO Global Industry Alliance*
- *IMO Maritime Technology Cooperation Centers*
- *IMO NGO's IAPH, IHMA, ICS, Intercargo, Bimco, IHO, IALA*
- *GS1 organizes a Maritime & Ports workgroup for establishing a credible long-term body for the maintenance of the standards and to become integrated with the end-to-end Supply Chain, including hinterland parties*
- *World Ports Climate Action Program*
- *Chain Ports*
- *Terminal Industry Complex 4.0*
- *Global Maritime Forum*
- *SMART*
- *STM*
- *P&I Clubs*
- *Digital Container Shipping Association*



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MARINE ENVIRONMENT PROTECTION COMMITTEE
74th session
Agenda item 7

MEPC 74/INF.34
8 March 2019
ENGLISH ONLY

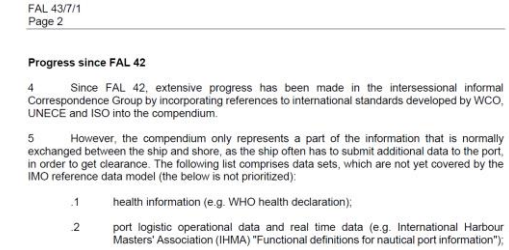
REDUCTION OF GHG EMISSIONS FROM SHIPS

Just-In-Time arrival of ships

Note by the Secretariat

SUMMARY

Executive summary:	This document provides an update on the work of the "Global Industry Alliance to Support Low Carbon Shipping" on the Just-In-Time arrival of ships
Strategic direction, if applicable:	3
Output:	3.2, 3.4 and 3.7
Action to be taken:	Paragraph 25
Related documents:	MEPC 71/17; MEPC 72/12/3; MEPC 73/13/3 and MEPC 74/12/4



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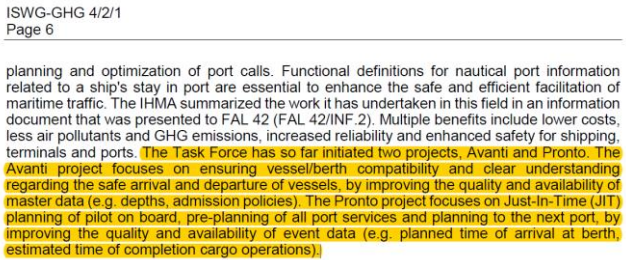

ISWG-GHG 4/2/1
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planning and optimization of port calls. Functional definitions for nautical port information related to a ship's stay in port are essential to enhance the safe and efficient facilitation of maritime traffic. The IHMA summarized the work it has undertaken in this field in an information document that was presented to FAL 42 (FAL 42/INF.2). Multiple benefits include lower costs, less air pollutants and GHG emissions, increased reliability and enhanced safety for shipping, terminals and ports. The Task Force has so far initiated two projects, Avanti and Pronto. The Avanti project focuses on ensuring vessel/berth compatibility and clear understanding regarding the safe arrival and departure of vessels, by improving the quality and availability of master data (e.g. depths, admission policies). The Pronto project focuses on Just-In-Time (JIT) planning of pilot on board, pre-planning of all port services and planning to the next port, by improving the quality and availability of event data (e.g. planned time of arrival at berth, estimated time of completion cargo operations).]

Frequently Asked Questions

1) Shipping is 5000 years old, why have standards never been used?
2) Roughly 80% of goods is transported by sea, why have supply chain standards never been used?

Good news

- There’s nothing new
- Addressing existing contracts and resolutions, using existing definitions and technology, will already create dramatic improvements


Thank
you