

# 3<sup>rd</sup> Industry Input Workshop, June 26 2019

## Port Call Optimization



**ADMIRALTY**



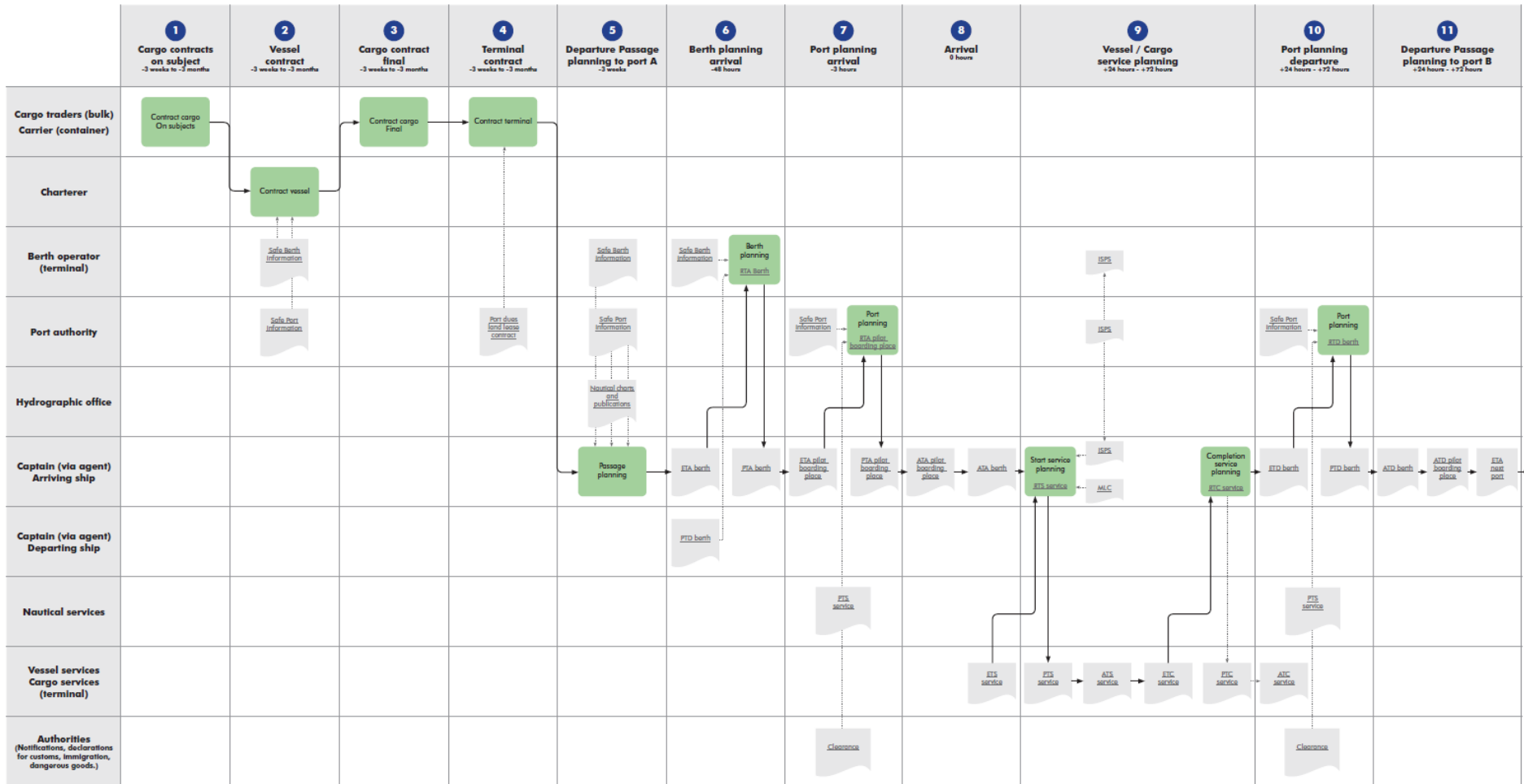
# Why – Shore side aspects



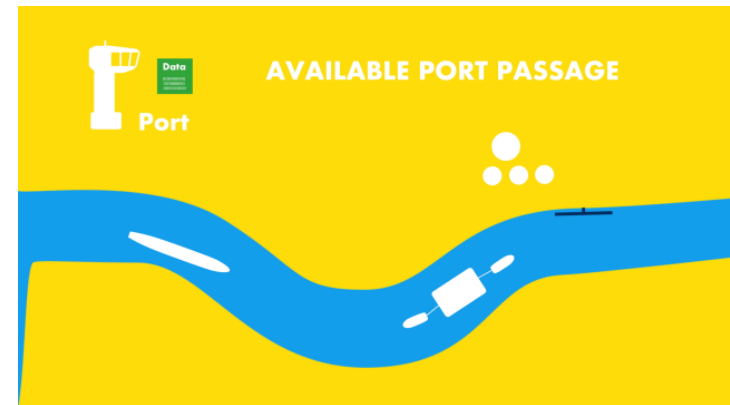
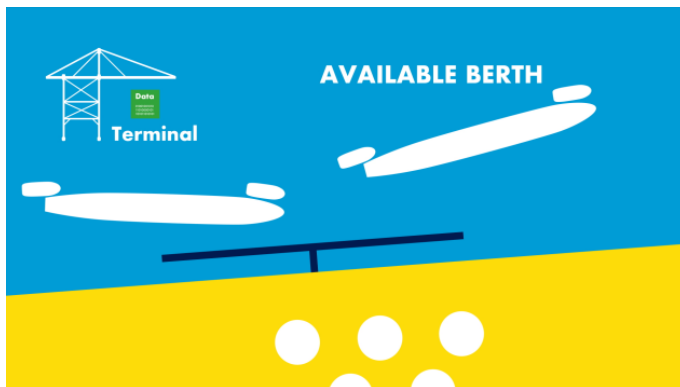
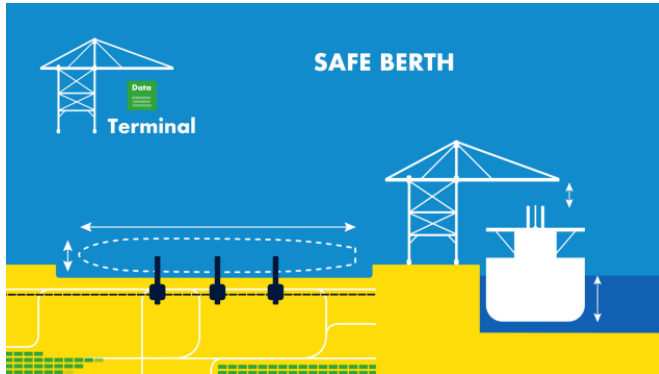
## Why – Sea side aspects



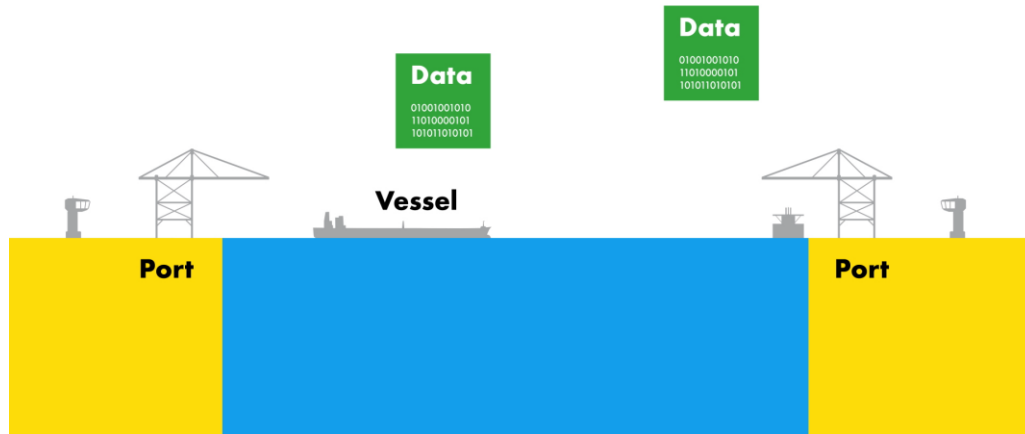
# How - Business process of a port call



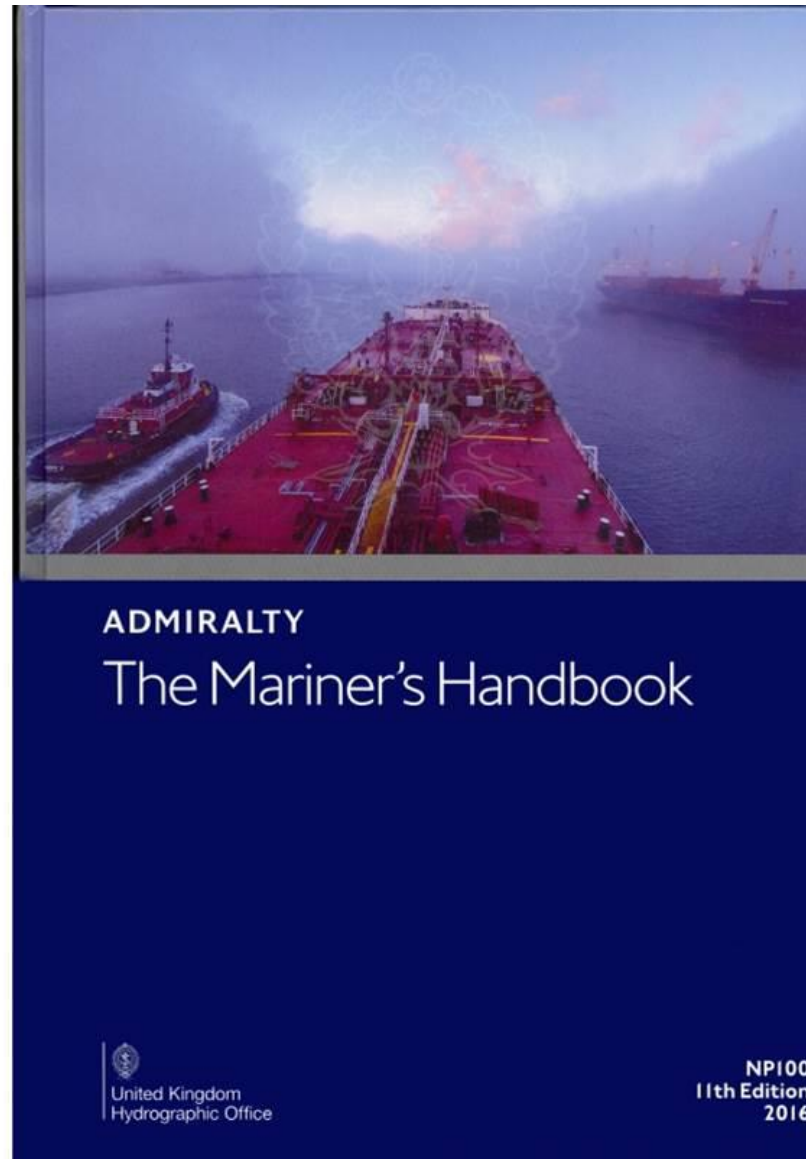
# How - Scope of data



# How – Existing standards



# How – Functional definitions: Must





## How – Data definitions: Nice

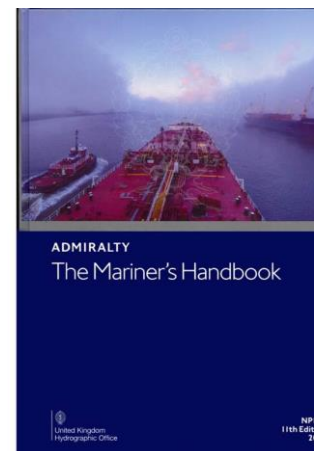
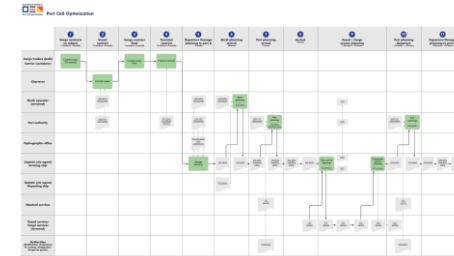
Definition	EPCIS Event Path	Port Call Message Format
<u>What</u>	<u>/epcList</u>	<u>"ship"</u> : {"imo": "9704611"}
<u>When</u>	<u>/eventTime</u> <u>/eventTimeZoneOffset</u>	<u>"eventTime"</u> : "2018-05-08T14:00:00Z" <u>"lowerEventTimeConfidence"</u> : "PT1H30M", <u>"upperEventTimeConfidence"</u> : "PT30M"
<u>Where</u>	<u>/bizLocation</u>	<u>"port"</u> : "NLRTM" <u>"terminal"</u> : "0123456789123" <u>"berth"</u> : "0123456789123" <u>"berthPosition"</u> : "0123456789123B6.25" <u>"shipSide"</u> : "portside"
<u>Why</u>	<u>/bizStep</u> <u>/action</u>	<u>"eventType"</u> : <u>"ATABerth terminal"</u>
<u>EventID</u>	<u>/eventID</u>	<u>"uuid"</u> : "75ecaa9b-cc77-45bc-90fa-26d9cdad5e1a"
<u>Recordtime</u>	<u>/recordTime</u>	<u>"recordTime"</u> : "2018-05-09T09:13:47:00Z"
<u>Source</u>	<u>/source</u>	<u>"source"</u> : "PCS"



# Next step: Support for ports

Bringing together:

1. The commercial and legal aspects of data
2. Scope of data
3. Functional definitions
4. Data definitions



Definition	EPCIS Event Path	Port Call Message Format
What	/epcList	"ship": {"imo": "9704611"}
When	/eventTime /eventTimeZoneOffset	"eventTime": "2018-05-08T14:00:00Z" "lowerEventTimeConfidence": "PT1H30M", "upperEventTimeConfidence": "PT30M"
Where	/bizLocation	"port": "NLRTM" "terminal": "0123456789123" "berth": "0123456789123" "berthPosition": "0123456789123B6.25" "shipSide": "portside"
Why	/bizStep/action	"eventType": "ATABerth.terminal"
EventID	/eventID	"uuid": "75ecaa9b-cc77-45bc-90fa-26d8cdad5e1a"
Recordtime	/recordTime	"recordTime": "2018-05-09T09:13:47:00Z"
Source	/source	"source": "PCS"

# Next step: Support for ports

Resulting in a step by step manual for the definition, creation and management of port information - initial version 1.3.1

Using authoritative definitions:

- UKHO NP100
- IHO S-32, S-57, S4 Hydrographic Dictionary
- Others e.g. EPSG, ISO 8601 etc.

Focus on:

- Vessel movement between Pilot Boarding Place and Berth
- Geographical Extent
- Data content with focus on “Compliance First”
- Areas, Waypoints and Sections

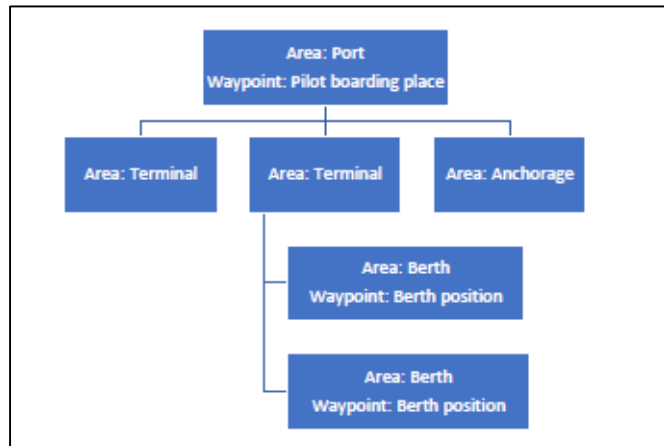
## PORT INFORMATION MANUAL

Version 1.3.1

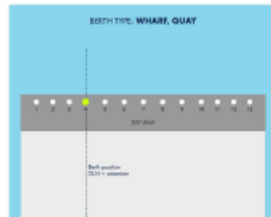
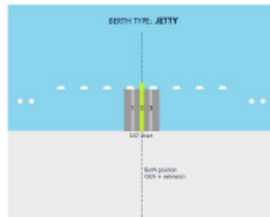
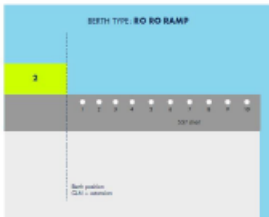


# Next step: Support for ports

- Explanatory text
- Use of tables and diagrams
- Structure will support modelling for data definition and interchange
- Interoperability



## 4.4. Berth Position

Name:	Berth Position		Source::
Definition	The position along the line of a berth, specified by one point (e.g. bollard, manifold or ramp number), allowing the vessel to berth in the correct position along the berth.		IHO S-32
Location	A single point		
Indirect reference		Direct reference	
Global Location Number of Berth (ISO/IEC 6523) with extension ( for bollard/manifold/ramp number) E.g.: 8719331013789-25 for APMT2 berth bollard 25		Datum: WGS 84. Held in decimal degrees to a defined precision, (minus to indicate South and West) Example: 51.887190, 4.284030	
Attribute(s)	1. Name of berth and bollard number 2. E.g. APMT2 bollard 25		
3. BERTH POSITION			
<div><div><p>BERTH TYPE: WHARF, QUAY</p></div><div><p>BERTH TYPE: JETTY</p></div><div><p>BERTH TYPE: RO-RO RAMP</p></div></div>			

# Next step: Support for ports

## Action:

- Publication December 2019
- Full product specification (technical document) to be added after port to port testing
- Extra:
  - Port passage plans
  - Organizing data owner ship
  - Organizing data quality

## PORT INFORMATION MANUAL

Version 1.2



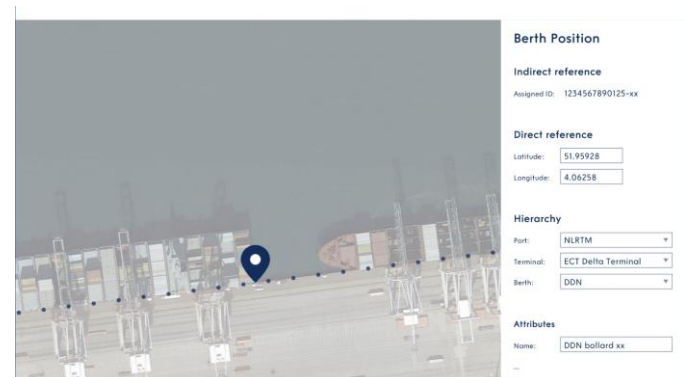
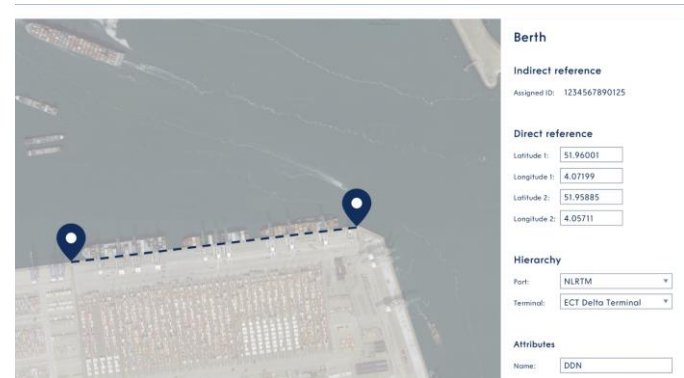
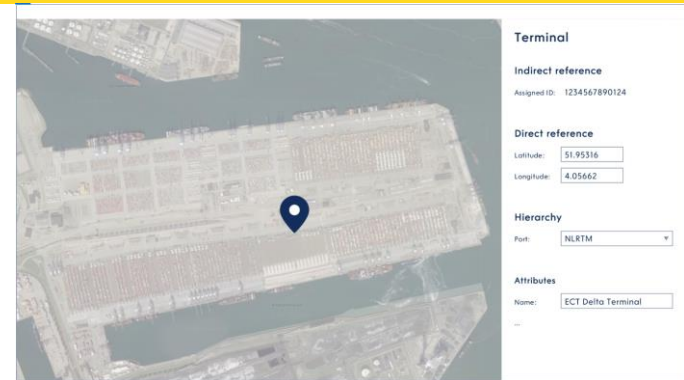
# Next step: Support for ports

## Support for ports:

- Identification of terminal, berth, berth position
- Verification by AIS
- Verification by Mariners / Pilots

## Action:

- Bring together IMO, ICAO and GS1 for lessons learned from aviation, supply chain and shipping industry to organize ID's for locations



# Next step: Support for ports

Working on a Just In Time Arrival Guide for ports

Based on Industry Roundtable discussions to address operational, contractual and regulatory barriers

Real time information exchange important part

**Action:**

- Draft publication December 2019



# S211/1 - supply chain/maritime standards and operations

- 1) Not using existing time types. Events should support the Master when deciding to slow down or speed up, which can have huge financial consequences. Therefore alignment with definitions in contracts and reporting formalities is key. Apart from this, number of events should be kept to a minimum and be intuitive. Currently the introduction of existing standards is already an issue
- 2) With S211 it is not possible to distinguish multiple berth visits within one port call, which is key for especially parcel tankers and feeder vessels
- 3) S211 does not have an ID to distinguish multiple services of the same type. E.g.; multiple bunker services during one port call. These events are key for planning of services, which is the foundation for a reliable departure time, being the foundation for a reliable arrival time of the next ship
- 4) S211 cannot identify which vessel is providing which service (e.g. which tugboat, bunker vessel etc.) – see point 3)
- 5) URN structure is compatible with GLNs. However S211 structure also supports other IDs for locations that could lead to berths having multiple different identities in different systems. For sharing data globally across multiple transport modes it is key to use GLN's
- 6) Not using EPCIS definitions such as source, record and event time

Technical working group is still working. Releases are not according to a fixed updating schedule, but are based on the amount of feed back.



# Next step: Organize maintenance of definitions

Maintenance is as critical as functional and data definitions.  
While parties develop products, new needs will arise.  
Today there are multiple standardization initiatives.

Learning from other industries:

Robust maintenance from day one by a robust organization saves time and money. ISO is such organization. Right organization to bring multiple standardization initiatives together.

Maintenance of some standards might be delegated to related organizations such as GS1 or UNCEFACT

## Action:

- Identify source of standards
- Organize maritime industry at GS1 / IMO



# Next step: Organize data ownership

Again not inventing anything new.

Learning from International Civil Aviation Organization

Together with International Taskforce Port Call

Optimization, World Ports Climate Action Program,

IMO Global Industry Alliance

## **Action:**

- Paragraph to be added to Port Information Manual



# Next step: Organize data sharing

Again not inventing anything new.

Learning from International Civil Aviation Organization

Together with International Maritime Organization,  
International Taskforce Port Call Optimization, World Ports  
Climate Action Program

Starting points:

- Not For Profit – for the basic data exchange
- For Profit – for additional services
- Neutral
- Global
- Business to business data to be secure
- Business to government data to be open under conditions
- Connecting ships port to port
- Connecting local services ship to ship

**Action:**

- On agenda IMO GIA to learn from ICAO



# Next step: Organize data quality

Again not inventing anything new.

Learning from class societies and international hydrographic organization



Starting point no delay in updates of ENC's  
Support for port data base of customers

## Action:

- Looking into existing ISO 9001:2015 as per IHO resolution 1/1997, section 4
- Add paragraph to Port Information Manual
- Looking into how to capture data quality in charts – discussion started in IHO Data Quality WG



# Next step: IMO FAL compendium

Now only reports from ships to ports

New is reports from ports to ships for JIT arrival

Amendment in order to receive electronic information between ship and shore. Harmonized data model must ensure that not a wide series of different platforms for exchange will appear. Must also ensure reduction of administrative burden.

Data model will go directly into an ISO standard (28005) – will be updated next year with the new information.

Implementation of the data reference model by ship companies and authorities will be the challenge !!!

## Action:

- Submission Q3 2019 for new data elements



# Summary of actions

- Port Information Manual – Q4 2019
  - Add source of standards
  - Add paragraph for port passage planning
  - Add paragraph for data ownership
  - Add paragraph for data quality
- Just In Time Arrival Guide – Q4 2019
- Organize maintenance of standards – Q4 2019
- Organize input re. data ownership – Q4 2019
- Organize input re. data sharing – Q4 2019
- Organize input re. data quality – Q4 2019
- Input for data elements FAL Compendium - Q3 2019



# Press release

Outcomes shared with press:

First Port Information Manual

Created together with ports, shipping and standardization bodies

All stakeholders are heading towards the same goal/direction, safe and efficient shipping

Common maritime data structure, aligns the different standardization bodies with interoperability as a very important result

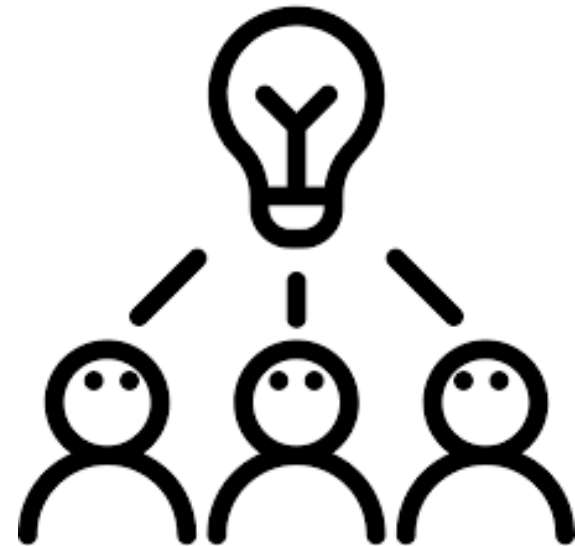




# Press release

A presentation was offered regarding Maritime Connectivity Platform for next meeting

A proposal for linking towards IMO maritime services



Thank you

