International Taskforce

Port Call Optimization

Who is International Taskforce Port Call Optimization?

The Taskforce:

- Comprises subject matter experts with hands on expertise in shipping, ports and standards
- Works together with IMO NGO's to make submissions to robust standardization bodies
- Provides input to Chainport, DCSA, IAPH Data project, IMO GIA low carbon shipping, Navelink, STM, WorldBank, WPCAP
- As a neutral body, consults but does not promote solution providers

Why did we start?

- Request from shipping to improve port data quality and availability to IHMA
- IMO MEPC 323/74: call for action to improve quality and availability of data in ship-port interface

Effect of Covid-19:

- Request from World Bank / IAPH to prioritize 10 data elements in ship-port interface: critical actions to strengthen the resilience of the maritime supply chain
- Requests from shipping and ports to have a step by step guide to digitize

International Harbour Masters Association

RESOLUTION MEPC.323(74)
(adopted on 17 May 2019)

INVITATION TO MEMBER STATES TO ENCOURAGE VOLUNTARY COOPERATION BETWEEN THE PORT AND SHIPPING SECTORS TO CONTRIBUTE TO REDUCING GHG EMISSIONS FROM SHIPS

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by international conventions for the prevention and control of marine pollution from ships,

HAVING ADOPTED resolution MEPC.304(72) on the *Initial IMO Strategy on reduction of GHG emissions from ships* (hereinafter the Initial Strategy),

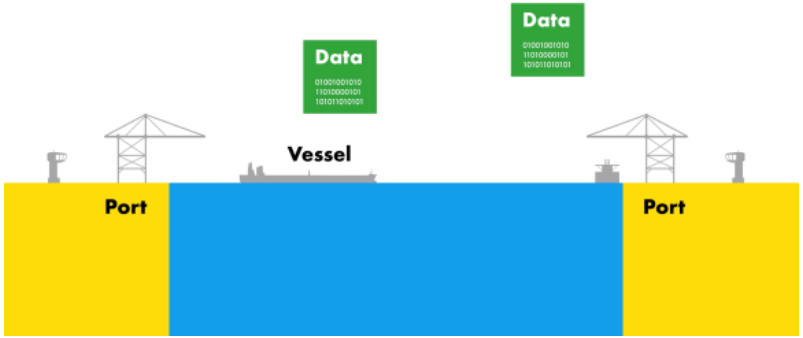
NOTING that the Initial Strategy calls for the encouragement of port developments and activities globally to facilitate reduction of GHG emissions from shipping, including provision of ship and shoreside/onshore power supply from renewable sources, infrastructure to support supply of alternative low-carbon and zero-carbon fuels, and to further optimize the logistic chain and its planning, including ports,

WORLD BANK GROUP

Why is quality and availability of ship-port interface data important?

Movement of the vessel

- Realizing safe and sustainable berth to berth navigation: where is my berth, when is my berth available?
- Important for shipping and terminals



Movement of the vessel's cargo

- Realizing sustainable end to end supply chain: where are my goods, when are my goods available for hinterland transport?
- Important for shippers

Why is data sharing by data owner important?

If data is not from data owner:

- Data becomes corrupt
- Data is not binding

Why is it difficult to share data?

- Each data user uses different standards and formats, or requires updates via e-mail, telephone or websites
- Each data user has different needs for updates

What is needed?

Data owners like to share data one to many:

- To minimize administrative burden
- To avoid errors
- To avoid delays in update
- To increase the value of data

One to many data sharing requires global standardization

Many different parties per vessel per port call:

- Shipping operates in a network of up to 9.000 different ports, each port has many different services
- Ports can receive up to 55.000 different ships, each ship can have many different cargo owners

Standardization requires investments

- Investments in IT: change data to fit format and standards, change management of related data bases
- Investments in people: culture change

Investments require scoping

Scoping to justify investments, based on basics first:

- To be compliant with IMO, BIMCO contracts, authorities
- To have impact on IMO objectives

Investments require robust standardization bodies

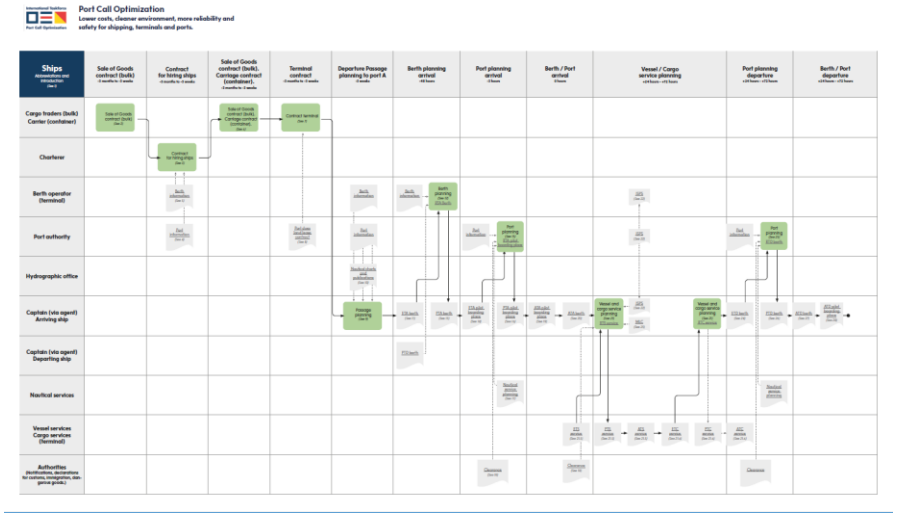
To ensure lifetime span of investments, only use standardization bodies which:

- Have commitment from both shipping and ports: it is common sense and imperative that shipping and ports use the same standardization bodies ensuring ships do not need converters for all ports and ports need only one converter for all ships
- Are robust: to avoid incompatibility between standards and systems, and ultimately futile investments into implementing standards that are not fit-for-purpose, not future proof or not viable for all stakeholders across the supply chain

Scoping: agree on business process of port calls

To understand complete scope of data, data owner ship and how actors work together, based on:

- IMO regulations
- BIMCO contracts
- Authorities
- Trade and port agnostic approach



Appendix to Port Call Process

Last update April 6 2020

International Taskforce

Port Call Optimization

1) Nautical data - scope

Scope:

a) General port data
b) Maintained depths and/or soundings
c) ID and location of terminals, berths and berth positions

Use cases:

a) To be compliant with IMO Resolution A.862(20)
b) To be compliant with IMO Resolution A.893(21)
c) To be compliant with ÏMO Resolution A.893(21)

For all data elements:

- To demonstrate due diligence / absolute warranty re. safe port clause
- To demonstrate due diligence that Hydrographic Office and Port Authority have worked together to discharge their collective SOLAS responsibilities
- Allowing Master and Pilot to navigate the ship using the same Electronic Navigational Charts and Sailing Directions

1) Nautical data – robust standardization body

International Hydrographic Organization (IHO)

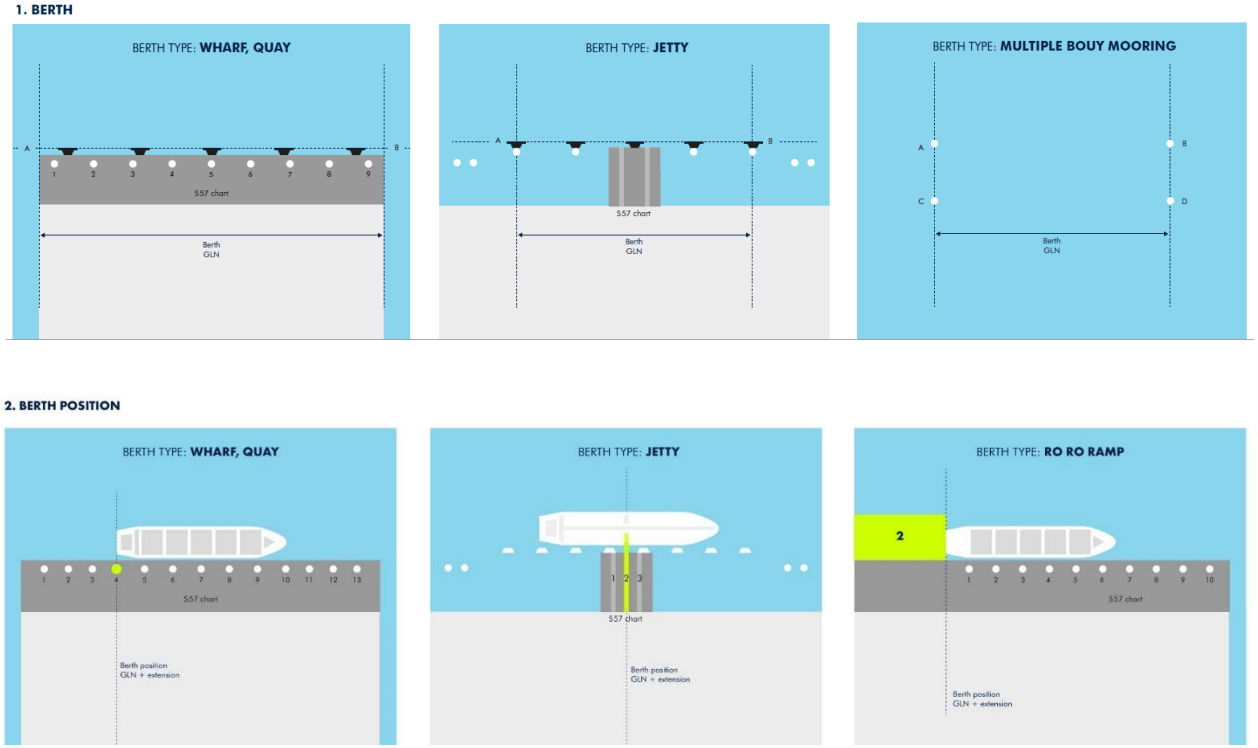
Because:

- From the start, IHO has been working with national hydrographic offices to create standards for nautical charts
- IHO being robust party for both shipping and port sector; has 93 Member States

1) Nautical data – road map

1) Data element definition:
   - ✓ Submission marine harbor infrastructure (PIM)
   - ✓ Submission definition UKC
   - ➢ Submission definition heights of quay walls/ manifolds
   - ➢ Submission definition berth operator / user
   - ➢ Submission definition mooring facilities
2) Logical data model:
   - ➢ POC to exchange terminal, berth, berth position
3) API specifications:
4) Technical performance requirements:
5) Business performance requirements:

1) Nautical data – road map – industry input



PORT INFORMATION MANUAL ©

For ship-port interface data

Version 3.01

International Taskforce Port Call Optimization

International Harbour Masters Association

IAPH

ADMIRALTY

1) Nautical data – road map – results

International Hydrographic Organization
IHO
Organisation Hydrographique Internationale
4b, quai Antoine Ier
B.P. 445
MC 98011 MONACO CEDEX
PRINCIPALITY OF MONACO
Tel. : +377 93 10 81 00
Fax : +377 93 10 81 40
e-mail : info@iho.int
Web : www.iho.int

NAUTICAL INFORMATION PROVISION WORKING GROUP

NIPWG Letter 5/2020 — 11 June 2020

NIPWG Members

Continuation of NIPWG activities

Ref: NIPWG letter 4/2020

Dear colleagues,

This letter discusses three items.

- The participation in, I call it, "Scoping Teams";
- The scoping work; and
- The video conferences set-up.

Scoping Team Participation

First, I would like to express my deepest impression on the number of volunteers who would like to contribute to the scope development of the two referred product specifications.

The participants are (order according to the confirmation received). I hope you're not disappointed that I used your first names. That simplifies the collection (and typing).

Name and Organisation	S-126 (Marine Physical Environment)	S-1xx (Marine Harbour Infrastructure)
Ben, NETHERLANDS (IHMA)		x

2) Administrative data – scope

Scope:

a) IMO GISIS data base up to date for ID port facility

b) IMO FAL Compendium implementation

c) Planning of boarding and clearances

Use cases:

a) To be compliant with IMO SOLAS Regulation XI-2/13.4

b) To be compliant with ISPS and regional, national and local authorities, having an impact on the Master's availability for safe navigation and swift clearance of ship and cargo

c) To be compliant with MLC, having impact on planning cargo operations, rest hours and shore leave

2) Administrative data – robust standardization body

IMO Facilitation (FAL), with ISO, WCO, UNECE

Because:

- From the start, IMO FAL was assigned to set standards for notifications and declarations
- IMO being robust party for both shipping and port sector has 174 Member States

2) Administrative data – road map

1) Data element definition:
   - ✓ Submission for arrival/departure times
   - ➢ Time stamp definitions for boarding / clearances by authorities

2) Logical data model:
   - ➢ IMO FAL EGDH contacting ISO TC8 for proposal, compatible with administrative, navigational and supply chain data, governance for data owner

3) API specifications:

4) Technical performance requirements:

5) Business performance requirements:

2) Administrative data – road map – industry input

Arrival Time Pilot Boarding Place

ETA PBP	RTA PBP	PTA PBP	ATA PBP
Estimated Time of Arrival Pilot Boarding Place	Requested Time of Arrival Pilot Boarding Place	Planned Time of Arrival Pilot Boarding Place	Actual Time of Arrival Pilot Boarding Place
Data owner: Vessel	*Data owner: Port*	*Data owner: Vessel*	*Data owner: Vessel*

Arrival Time Berth

ETA BERTH	RTA BERTH	PTA BERTH	ATA BERTH
Estimated Time of Arrival Berth	Requested Time of Arrival Berth	Planned Time of Arrival Berth	Actual Time of Arrival Berth
Data owner: Vessel	*Data owner: Terminal*	*Data owner: Vessel*	*Data owner: Vessel*

Departure Time Berth

ETD BERTH	RTD BERTH	PTD BERTH	ATD BERTH
Estimated Time of Departure Berth	Requested Time of Departure Berth	Planned Time of Departure Berth	Actual Time of Departure Berth
Data owner: Vessel	*Data owner: Port*	*Data owner: Vessel*	*Data owner: Vessel*

PORT INFORMATION MANUAL ©

For ship-port interface data

Version 3.01

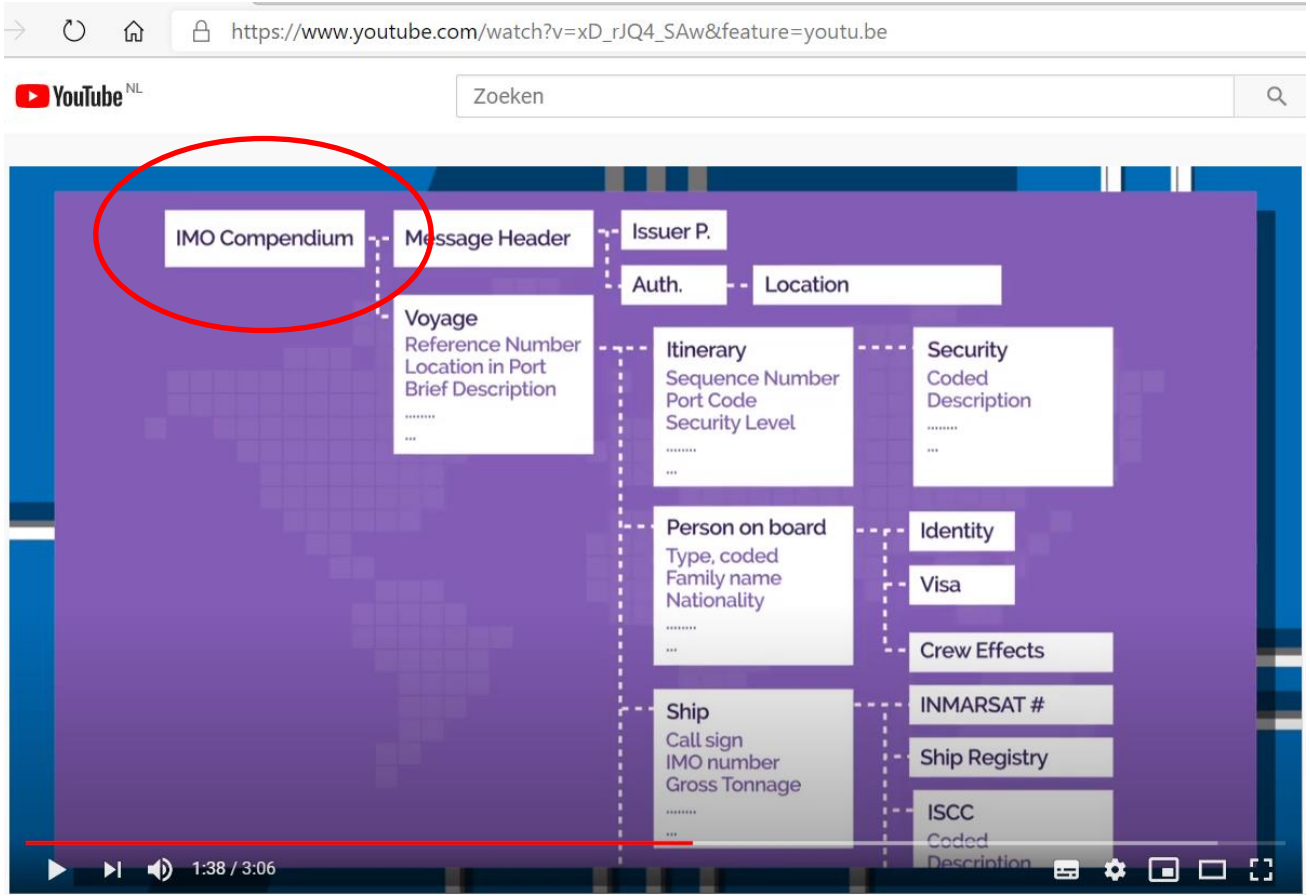
International Taskforce Port Call Optimization

International Harbour Masters Association

IAPH International Association of Ports and Harbors

ADMIRALTY

2) Administrative data – road map - results



https://www.youtube.com/watch?v=xD_rJQ4_SAw&feature=youtu.be

3) Operational data - scope

Scope:

a) Arrival/departure times at berth and pilot boarding place
b) Starting/completion times of cargo and ship services
c) Notifications of ISPS clearances for cargo and ship services, and for crew changes and crew visitors

Use cases:

a) Just In Time Arrivals, safe navigation
b) To be compliant with MLC rest hour planning, ISPS and has an impact on Just In Time Arrivals and safe navigation
c) To avoid delays of starting services which has an impact on Just In Time Arrivals and safe navigation and to avoid crew frustration not being able to go ashore or to see family

3) Operational data – robust standardization body

IMO Facilitation (FAL) – with ISO, WCO, UNECE

Because:

- Time stamps serve both administrative and operational data, it is common sense to develop them under the same body and build on existing work

3) Operational data – road map

1) Data element definition:
   - ✓ Submission for including operational data FAL 44/18/2
   - ✓ Submission for starting/completion times FAL EGDH 2/XX
   - ✓ Proposal to harmonize S-211 with IMO FAL
   - ➢ Submission to replace or modify S-211
   - ➢ Definitions for ISPS clearances
   - ➢ Definition Notified Time of Arrival (Port of Newcastle) for BIMCO Documentary Committee?

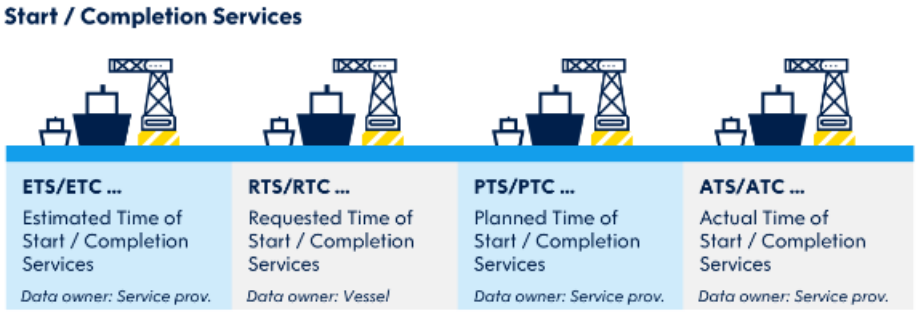
2) Logical data model:
   - ➢ IMO FAL EGDH contacting ISO TC8 for proposal, compatible with administrative, navigational and supply chain data, governance for data owner

3) API specifications:

4) Technical performance requirements:

5) Business performance requirements:

3) Operational data – road map – industry input



PORT INFORMATION MANUAL ©

For ship-port interface data

Version 3.01

International Taskforce Port Call Optimization

International Harbour Masters Association

IAPH International Association of Ports and Harbors

ADMIRALTY

3) Operational data – road map - results

INTERNATIONAL MARITIME ORGANIZATION

E

COUNCIL
124th session
Agenda item 10

C 124/10/4
10 October 2020
Original: ENGLISH
Pre-session public release: ☐

SUPPLEMENTARY AGENDA ITEMS

Urgent matters emanating from the forty-fourth session of the FAL Committee

Note by the Secretary-General

SUMMARY

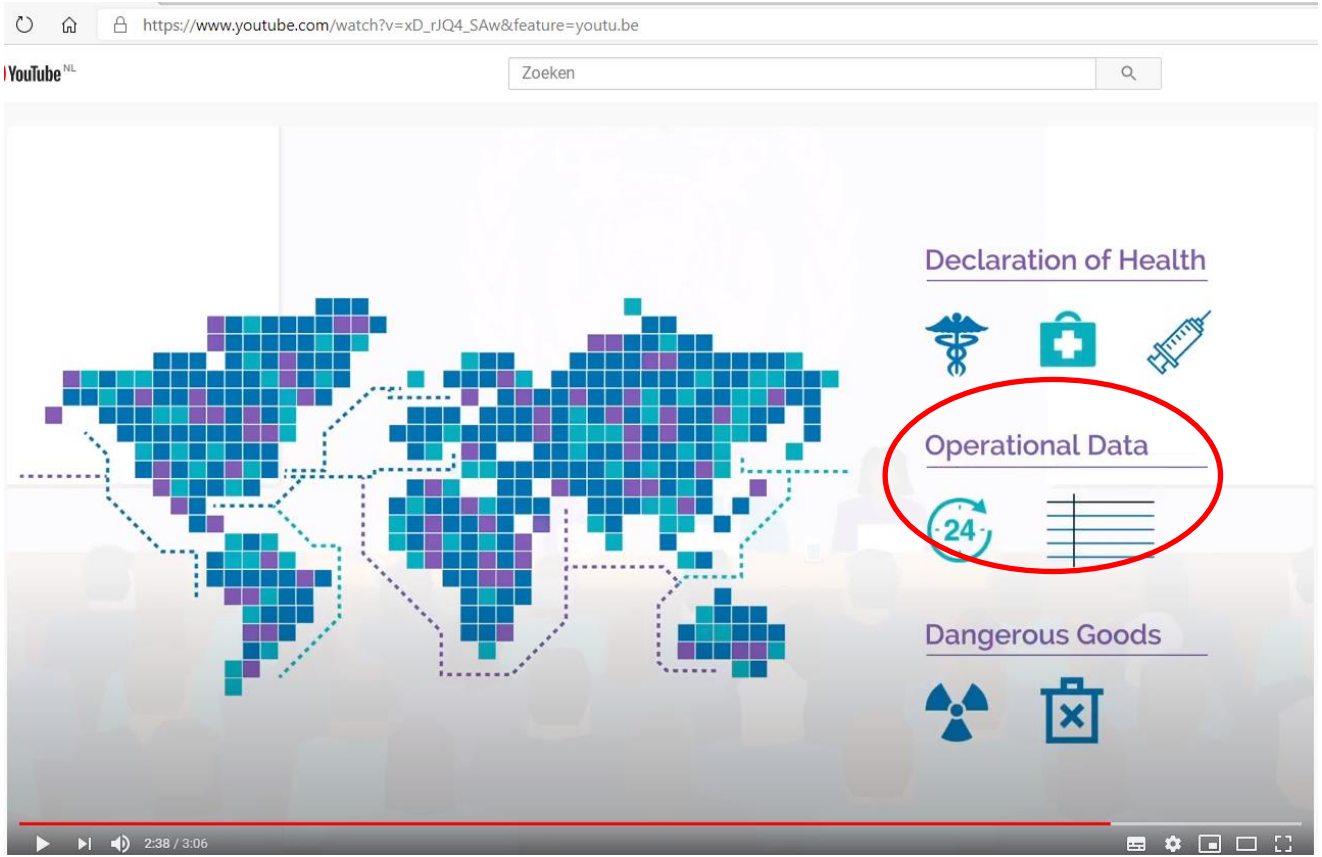
Action requested of the Council

5 The Council is invited to note the information provided and to take action, as appropriate, in particular to:

.1 endorse the new FAL Committee output on "Development of guidelines for harmonized communication and electronic exchange of operational data for port calls" (paragraphs 2 and 3); and

.2 endorse the holding of two intersessional meetings of the EGDH in 2021 (paragraph 4).

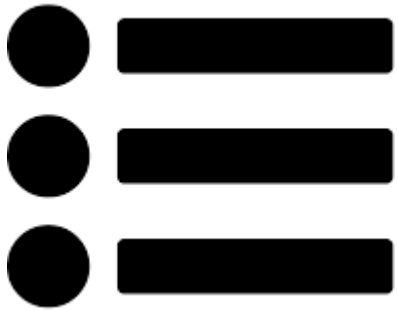
3) Operational data – road map - results



https://www.youtube.com/watch?v=xD_rJQ4_SAw&feature=youtu.be

Summary

- Covid-19 has resulted in an increase of requests to digitize
- However, to digitize we first must standardize
- Standardization requires:
    1) Agree on business process of port calls
    2) Agree on minimum scope of data
    3) Agree on robust standardization bodies
    4) Agree on road map per data set
    5) Develop incentives for data owners
    6) Develop guidance for data owners
- This requires collaboration between IMO and Industry



International Taskforce

Port Call Optimization