

# Follow up of Industry Input Workshop 24/05/18

Update 20/08/18

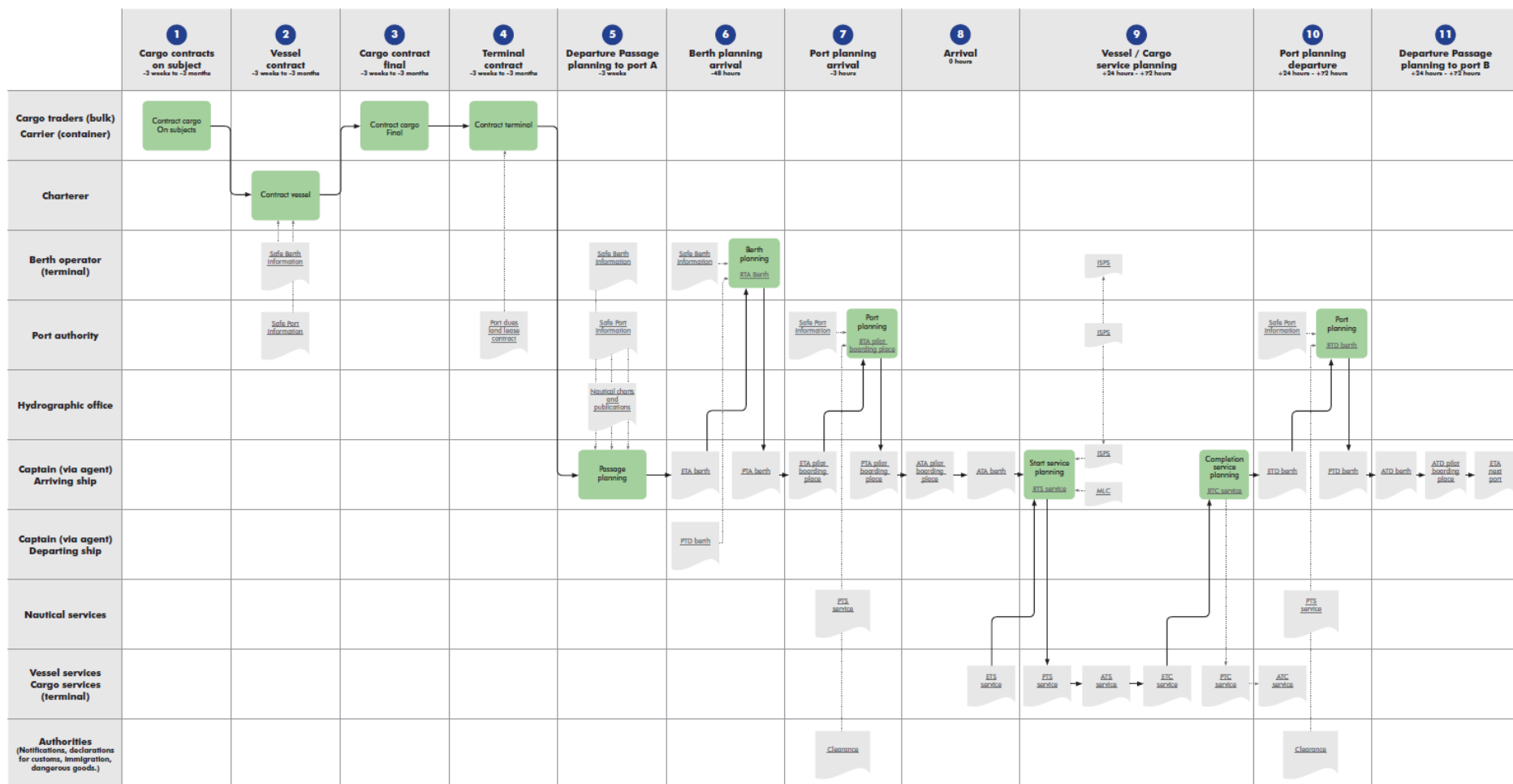


**ADMIRALTY**

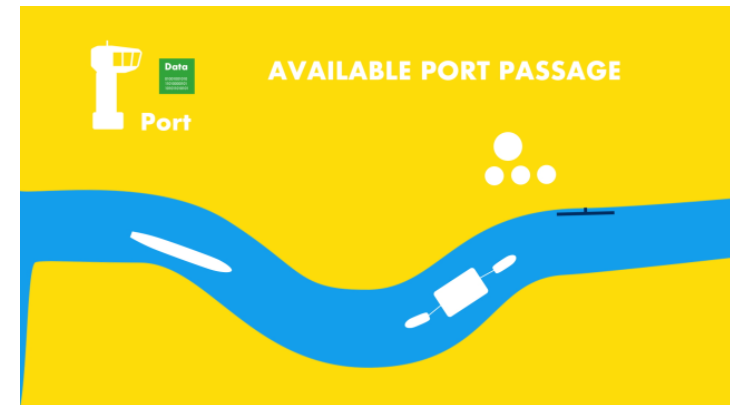
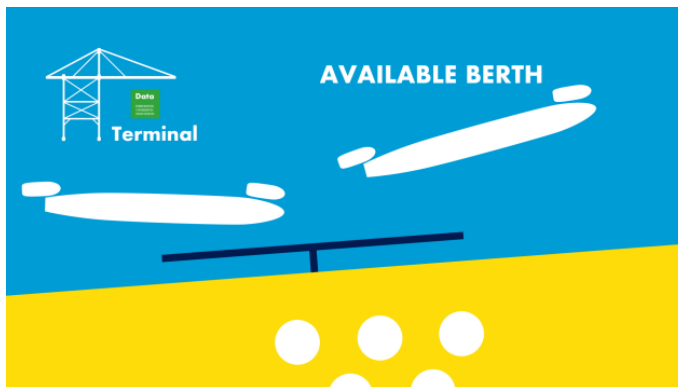
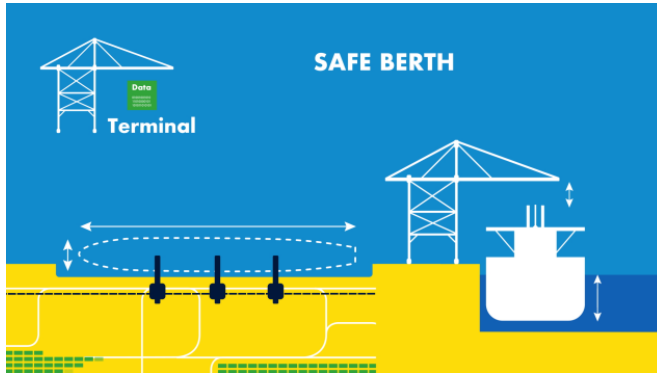


# Done – Business process and appendix

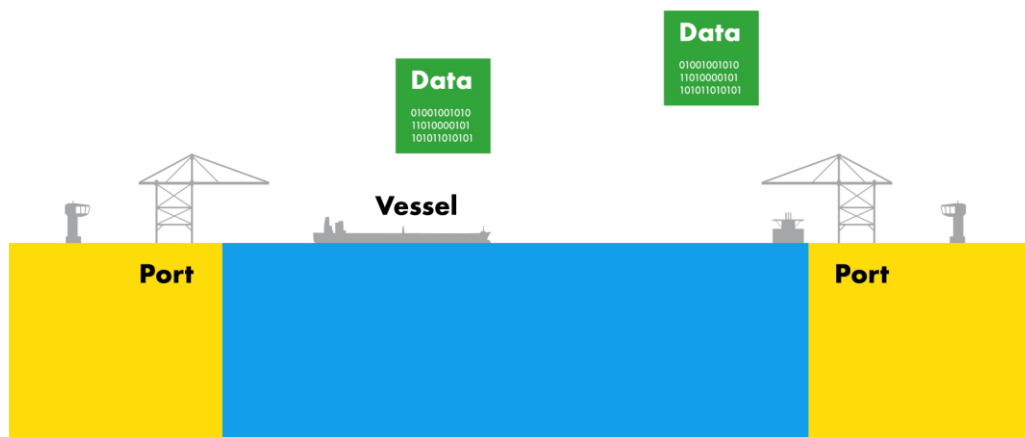
## Port Call Optimization



# Done – Scope of data, based on process & appendix



# Done – Selecting standardization bodies



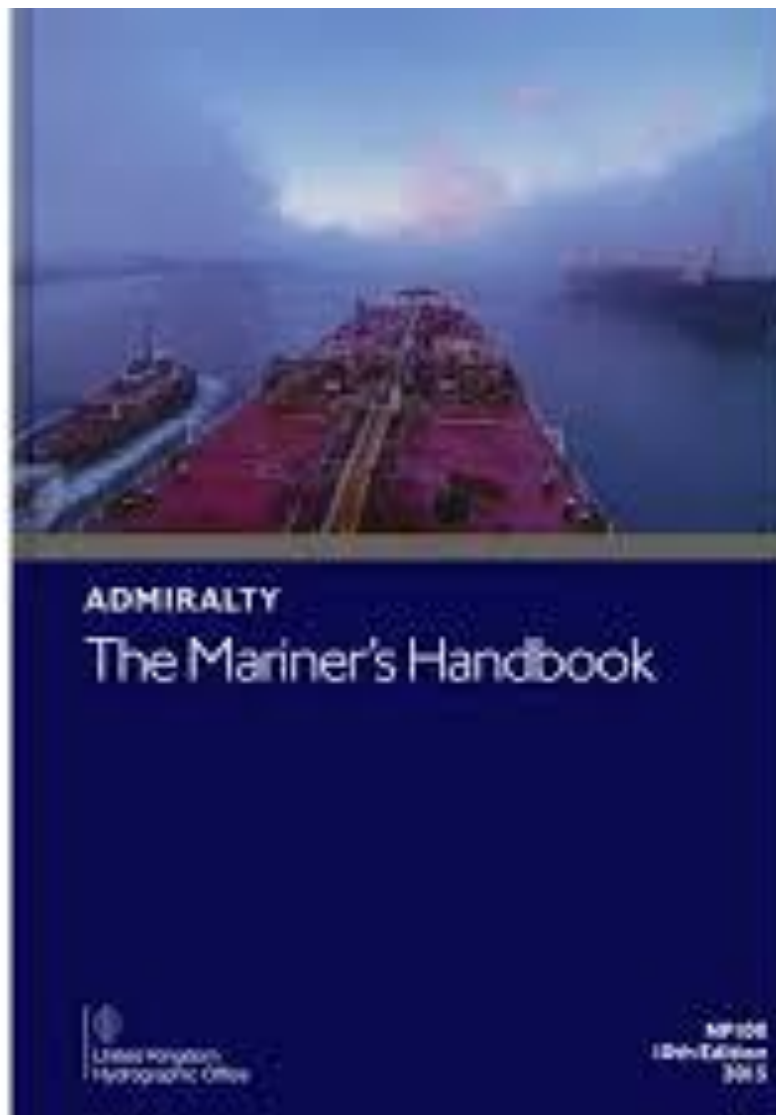
# Done - Functional definitions

Intermediate publication

September 2017

Official publication

2019 – after summer



# To do - Functional definitions

Not yet in functional definition:  
Requested / Recommended Times

Necessary because:

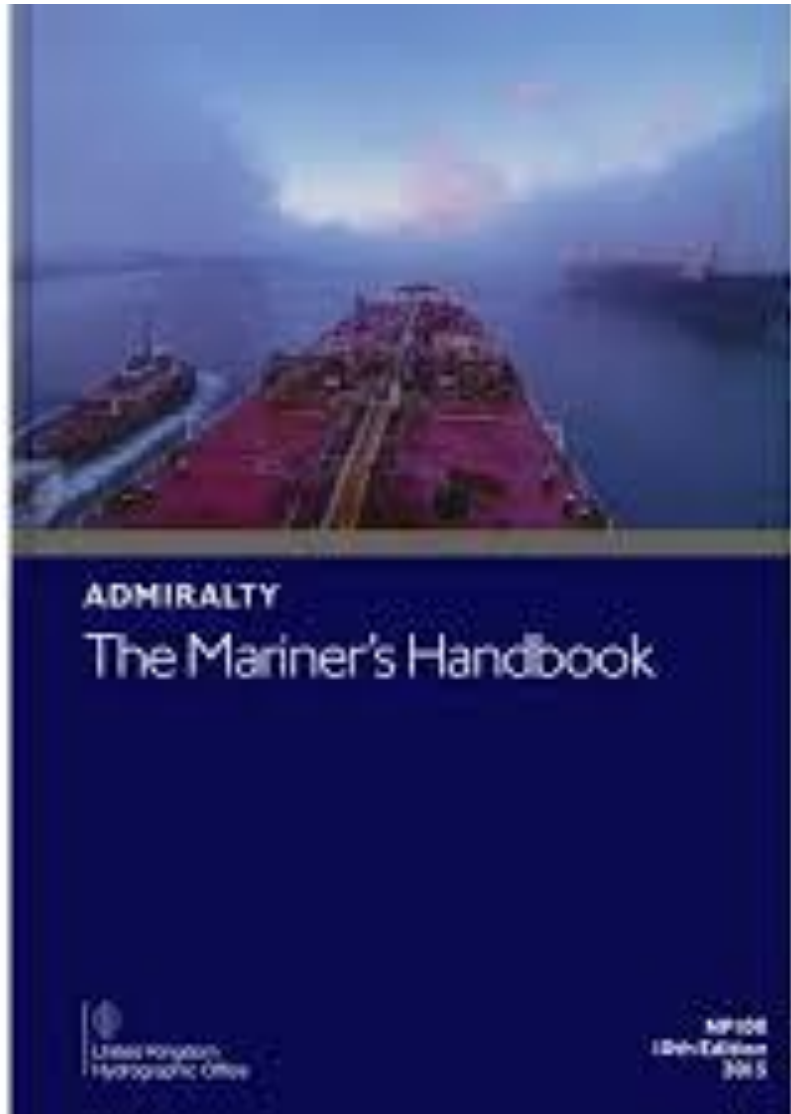
- To support M2M communication, closed data loop
- Reference in clause for JIT arrival

Decision:

- Requested Time as it gives more support to the Master
- Double check during JIT clause meeting at Bimco (done, confirmed)

Action:

- Update functional definitions - Ben



# To do - Functional definitions

Aligning service times with arrival/departure times

Aligning nautical services with cargo and ship services

Allowance for trade specific events

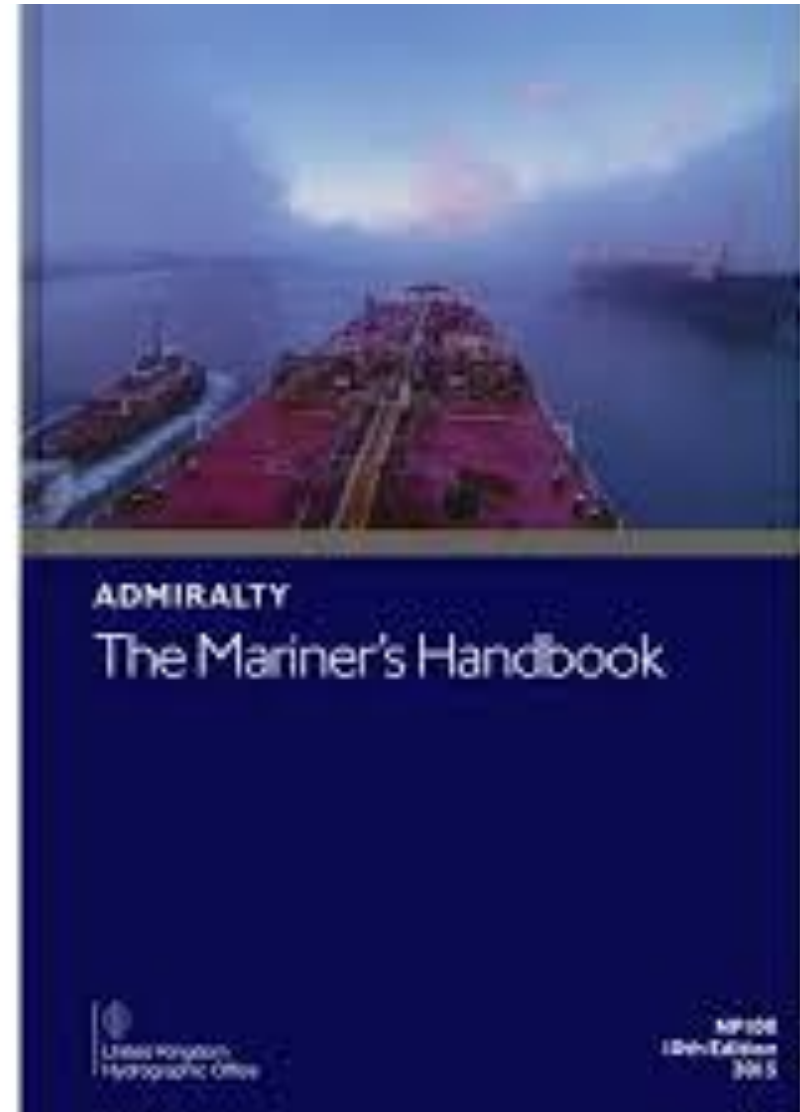
Necessary because:

- To support planning of nautical, cargo and ship services
- To support a closed data loop
- To support trade specific events which are important for planning of different stakeholders

Decision: execute

Action:

- Update functional definitions for approval 31/08/18 - Ben



# To do - Master data – Starting principles

## Considerations

- Interoperability with other systems
- Precision, reference to datums, unambiguous, repeatability
- Forwards compatibility with future standards

## Recommendation

- Use GML
- Make sure geoJSON can also be encoded for future
- geoJSON / GML have equivalent structures

A single position which represents a location of an object or feature.

All positions within the data are defined as:

- WGS84 horizontal datum
- Presentation of position is down to the implementing system
- Positions should be held as Decimal Degrees
  - Allows for easier human and computer readable data
  - No confusion of degree symbols, spaces, characters within position etc.
  - Can be a number rather than a string
  - Precision is implied by number of decimal places and is left to the data creator to add appropriate decimal places for precise locations – and depends on port/terminal/berth position
  - Matches standard notation of position in international standards such as S-57 & S-100
  - Allows for easy conversion at the supplier/consumer to any display format



# To do - Master data – Starting principles

- Minus to indicate the hemisphere (S & W)
- A measure of precision should be added to the dataset's metadata
- Positions can be embedded directly in data (as decimal degrees with a measure of precision)
- Or can be specified by an indirect reference, referred to another feature already existing in the destination system, e.g a GLN or chart position
- For indirect references precision will be defined by the precision of the data at the destination
- This also mirrors IHO S-57/S-100 structures
- The data being transmitted needs to state whether positions are direct or indirect

# To do - Master data – Berth

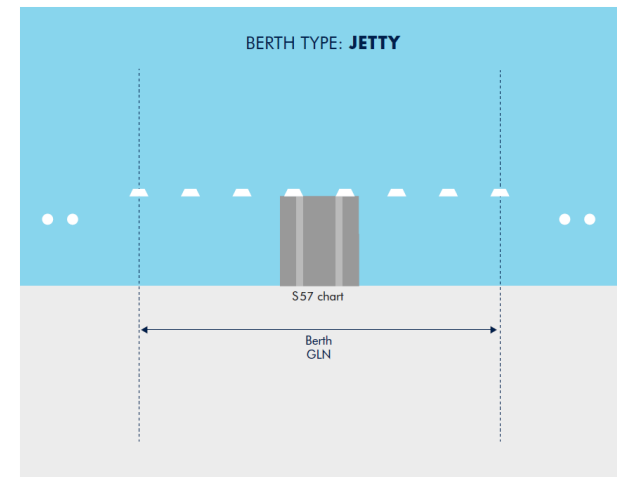
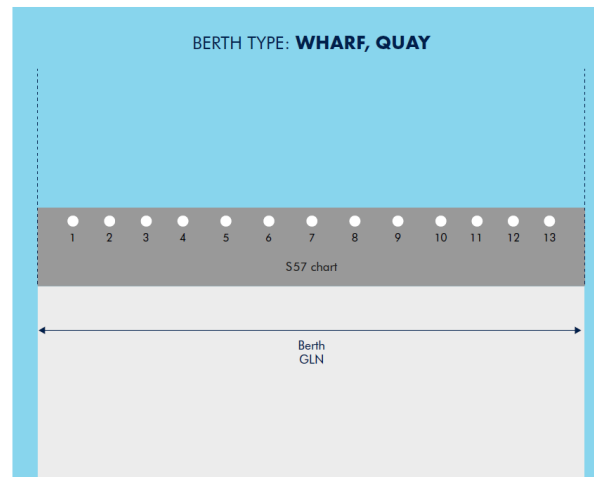
Can be specified with two points being the two extremities of the berth.  
Every single berth is one straight line

- Quay walls: both corners
- Jetty: first/last breasting dolphin

Decision: agree

Action: none

## 1. BERTH



# To do - Master data – Berth position

## Berth position

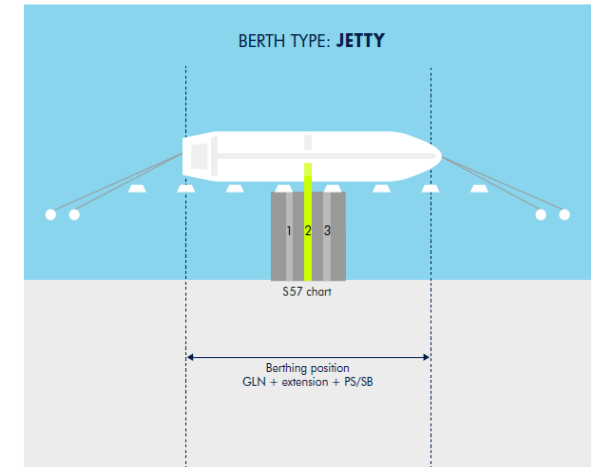
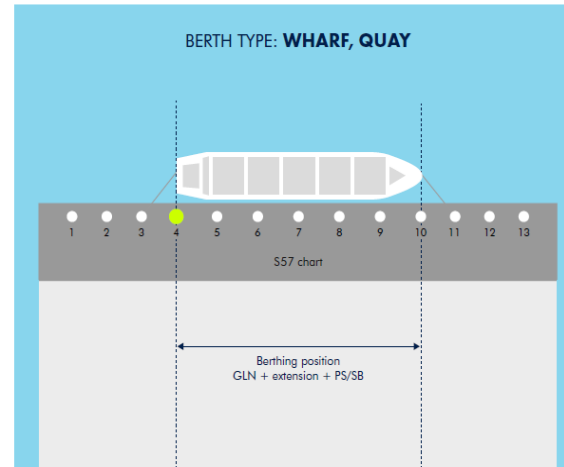
The position along the line of the berth can be specified with one point :

- Quay walls: aft bollard – 0,25 bollard accuracy; optional forward bollard
- Jetties: manifold number
- Roro: ramp number
- Double banking: same as single

Decision: agree

Action: include other berth positions (e.g. RoRo ships) – Ben van Scherpenzeel

## 2. BERTHING POSITION



# To do - Master data – Maximum sizes and conditions

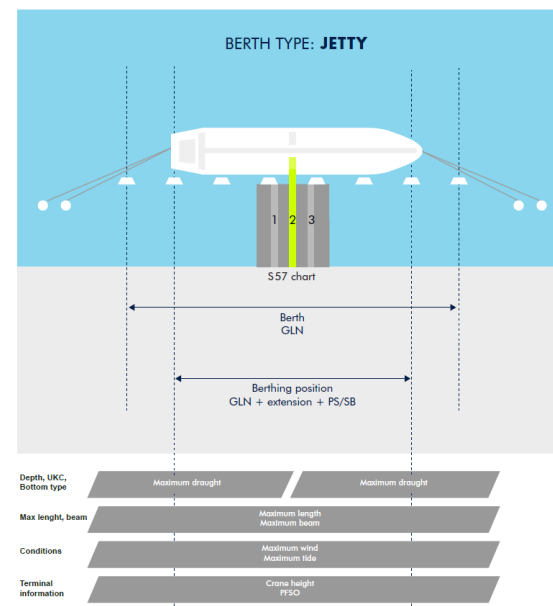
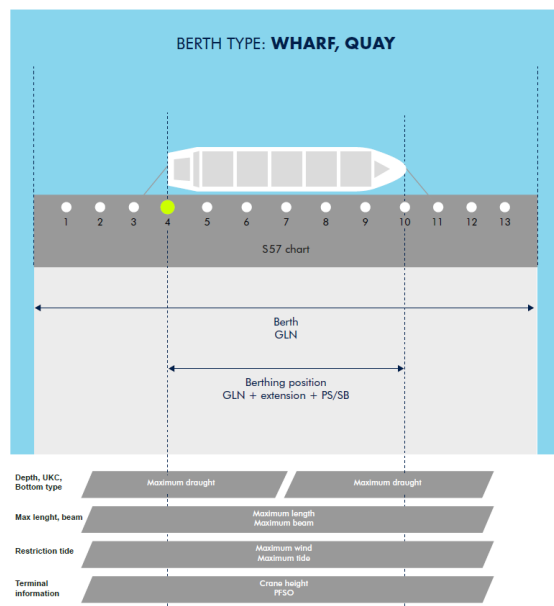
## Maximum sizes and conditions

Based on berth position

Decision: not yet part of the discussion

Action: agenda next meeting  
– Ben v Scherpenzeel

### 3. BERTHING POSITION MAXIMUM SIZES AND CONDITIONS



# To do - Master data – Direct or indirect reference

## Direct reference (lat/lon)

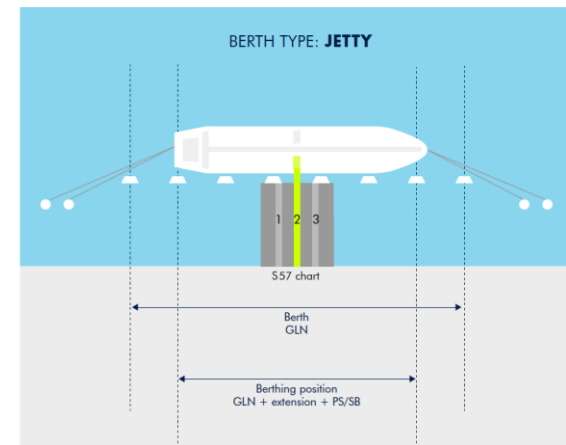
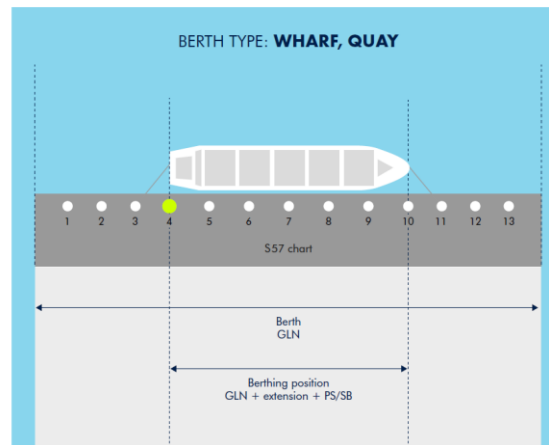
Reliable on short term,  
unreliable on long term due  
to change of infra

## Indirect reference (name /nr)

Reliable on long term as  
change of infra does not  
affect ID

Decision: indirect reference

Action: None



# To do- Master data– Indirect reference – Name or number

## Starting principles:

Global, no change of ID after change of ownership, applies to all terminals and berths (sea, inland, container, bulk)

## Name

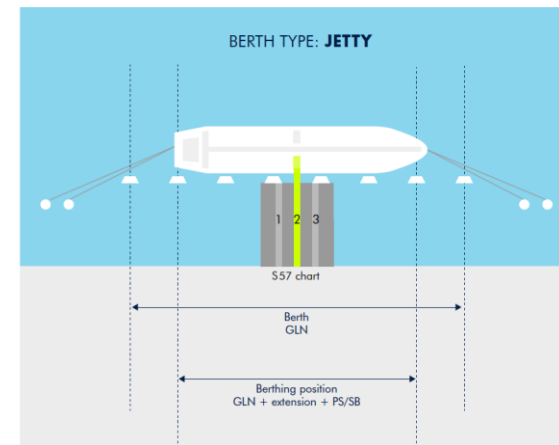
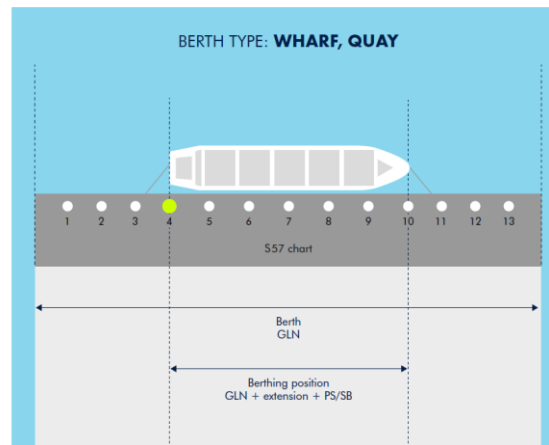
Unreliable due to many different names – e.g. local names, historic names, etc.

## Number

Reliable if it 's unique (like IMO number of ship)

Decision: use number that is guaranteed unique and non significant

Action: select unique number type – see next slides



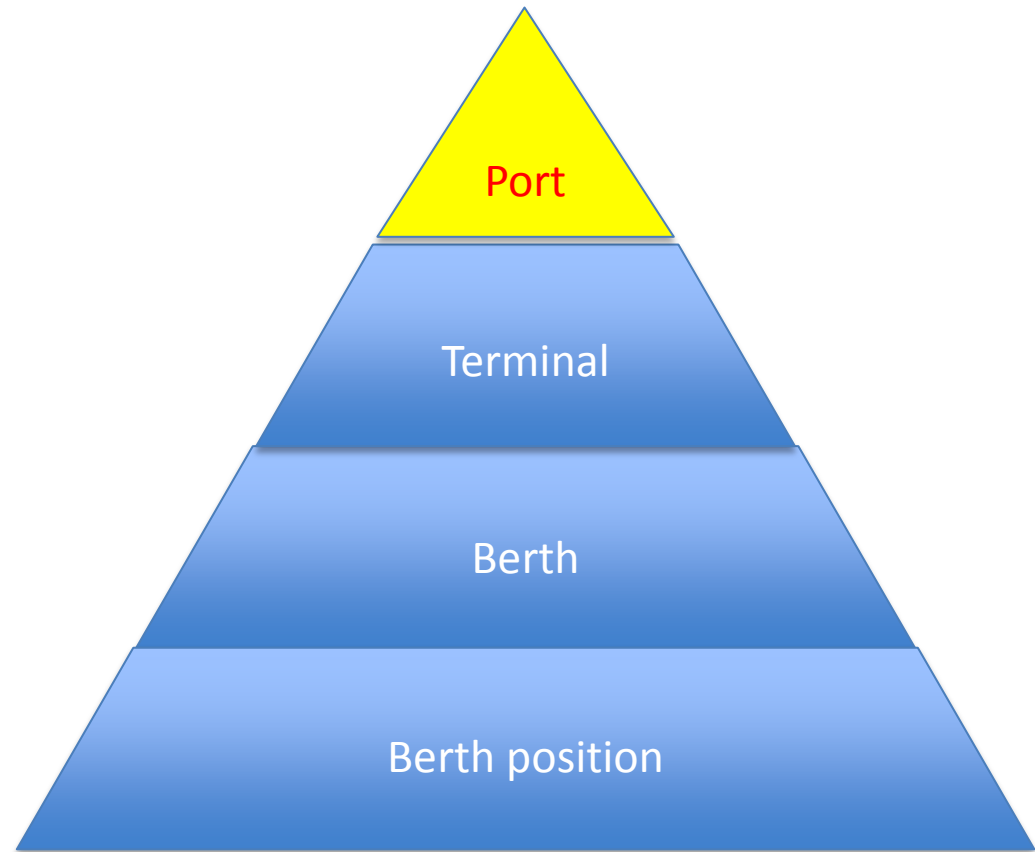
# To do - Master data – Direct reference – Port

A single position which represents the port as a whole (generally a center of gravity position is chosen to represent the port's location)

- WGS84
- Latitude : (-) decimal degrees
- Longitude: (-) decimal degrees

Example:

- UN/LOCODE – NLRTM
- 51.9200000, 4.5000000



# To do - Master data – Indirect reference – Port

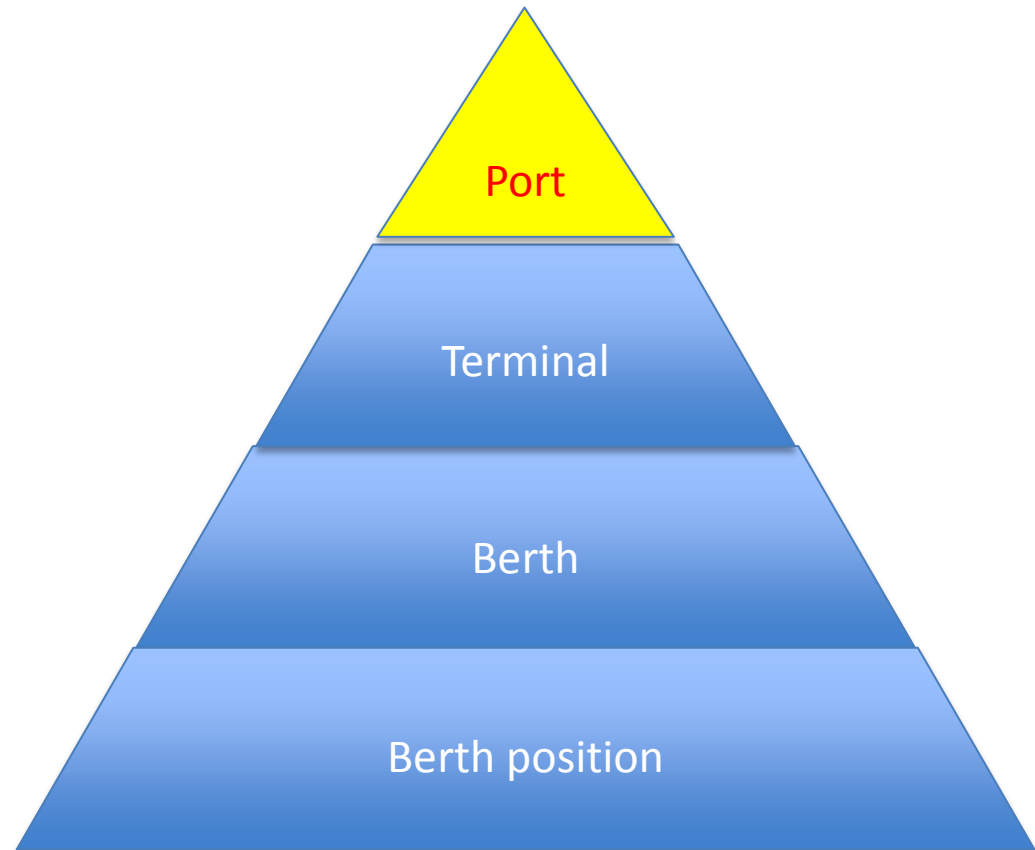
## UNLOCODE

Country code: ISO 3166-1, 2 characters

UN Location Code: UN Code for Trade and Transport

Not perfect, but the best we have and familiar to stakeholders. Also used in many documents.

Decision: agree





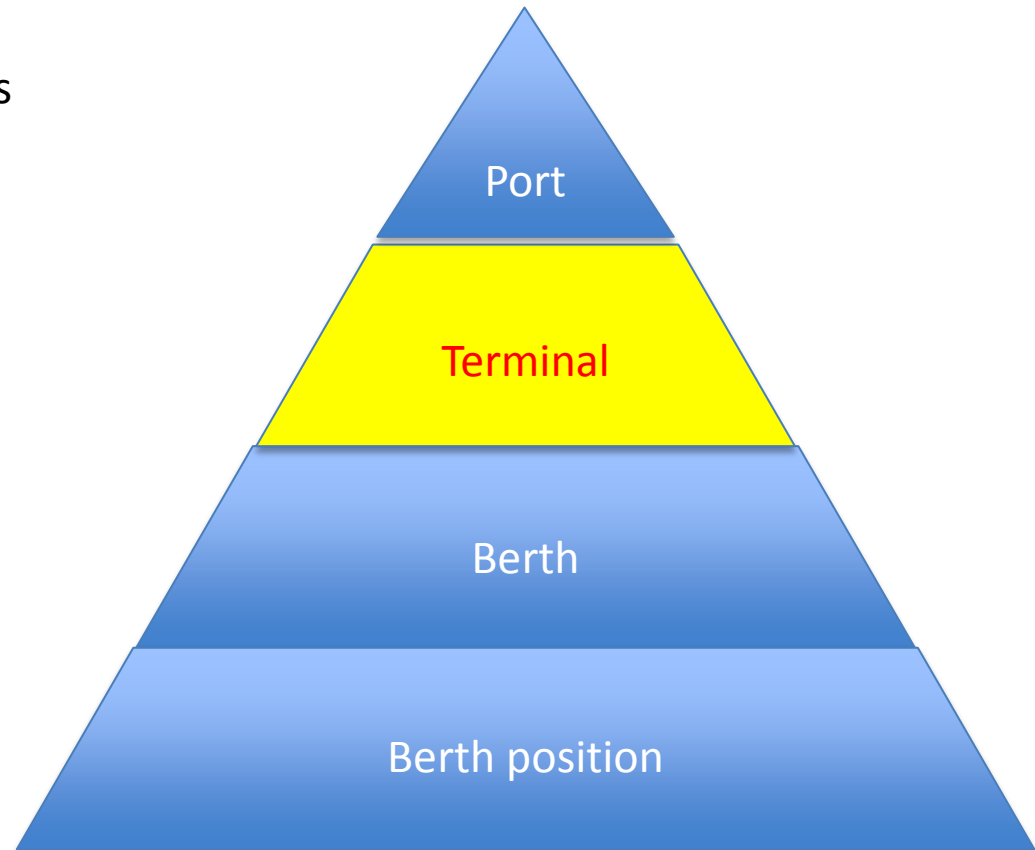
# To do- Master data–Direct reference – Terminal

A single position which represents the terminal as a whole (generally a center of gravity position is chosen to represent the terminal's location)

- WGS84
- Latitude : (-) decimal degrees
- Longitude: (-) decimal degrees

Example:

- Vopak Terminal Botlek
- 51.890002, 4.282050



# To do- Master data–Indirect reference – Terminal

## UNLOCODE + extension (SMDG)

Used by different lines in different ways .

Inland barges in Europe tried to align the extensions for container terminals only.

Changes need to be made after change of ownership

## GISIS

Only for terminals with ISPS. Number does not change with owner

## BIC

Maintains database for container terminals only. Data is not complete

## GLN

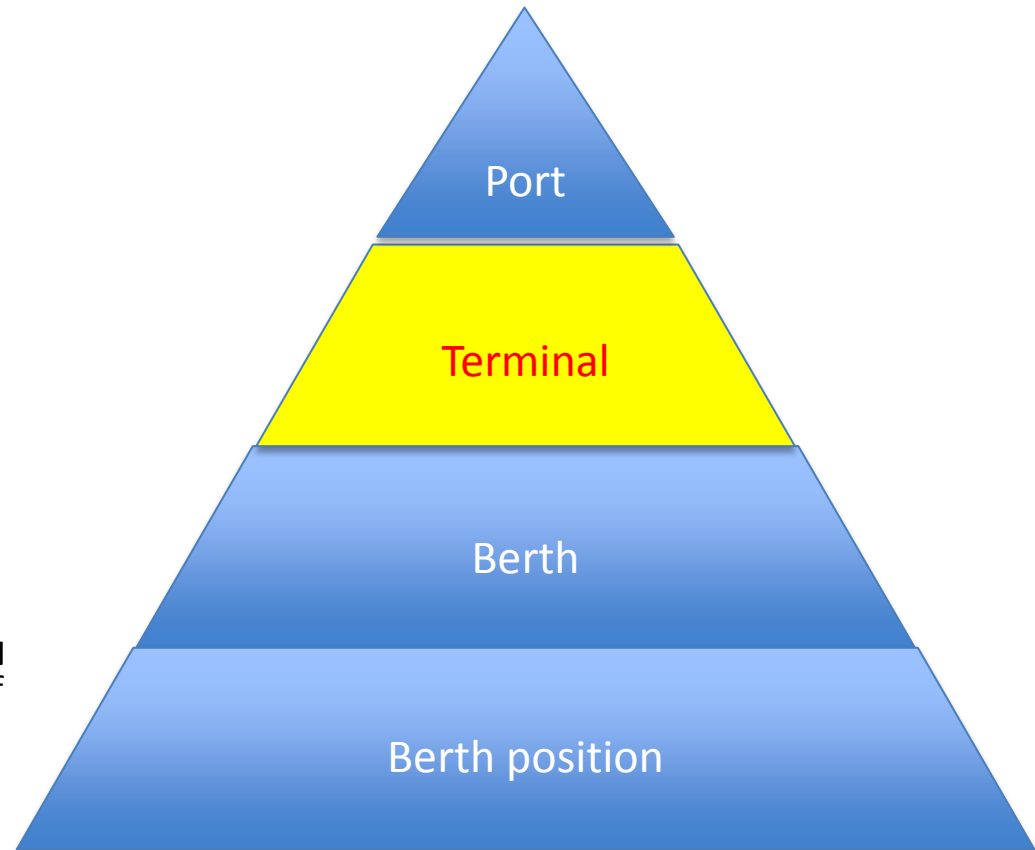
Used in logistics industry, not yet in ports. ISO/IEC 6523, global governance.

Change of ownership terminal: existing GLN can be used by new owner. Not necessary if GLN is issued by port authority

Proposal: GLN with attribute current UNLOCODE + extension

Decision: studying all options

Action: check SMDG with UNCEFACT - Jaco



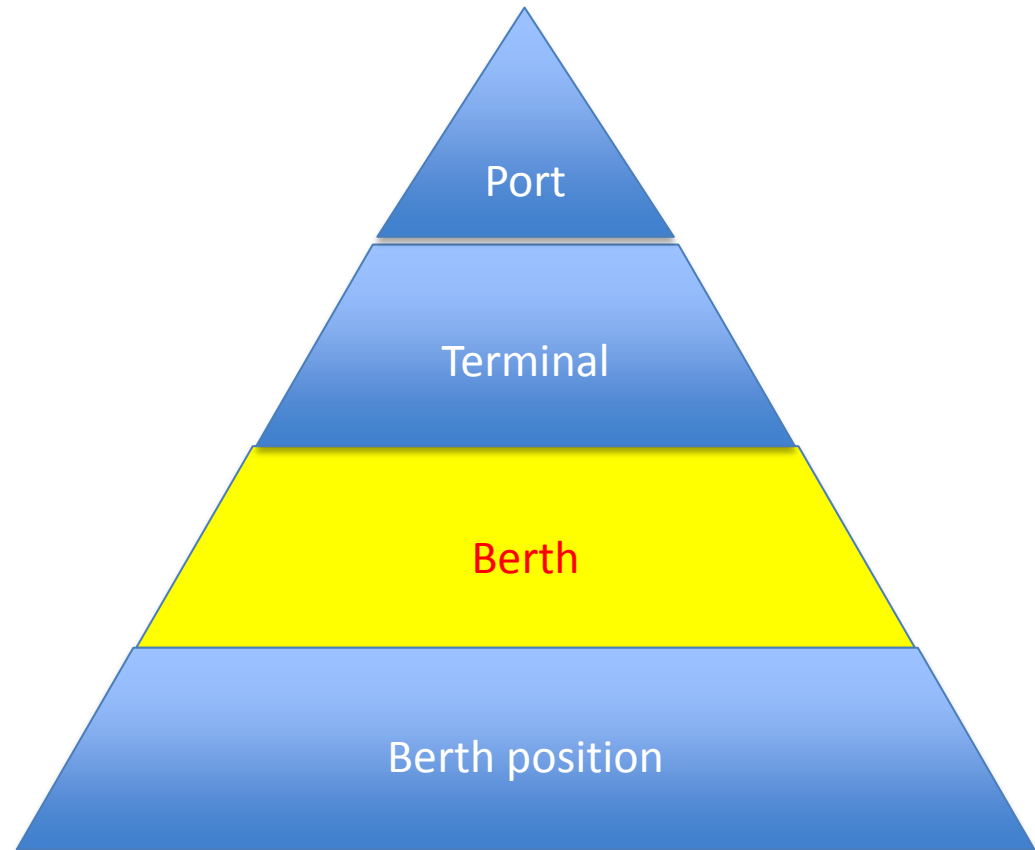
# To do - Master data – Direct reference - Berth

Can be specified with two points being the two extremities of the berth. Every single berth is one straight line

- WGS84
- A: Latitude : (-) decimal degrees
- B: Longitude: (-) decimal degrees
- Every point should be named
- Direction not important
- Using letters over numbers which could imply importance

Example:

- A: 51.887190, 4.284030
- B: 51.886240, 4.284560



# To do - Master data – Indirect reference - Berth

## Local numbers

No assurance numbers are unique, every port has different schemes

## Inland Ecdis ISRS number

UN Locode + fairway code + object reference code + fairway section hectometer. For inland waters only

## MRN

Used in test beds – no governance on ID level, governance on organization level. IALA MRN structure will support GLN. URN:MRN:GS1 domain to be established within IALA

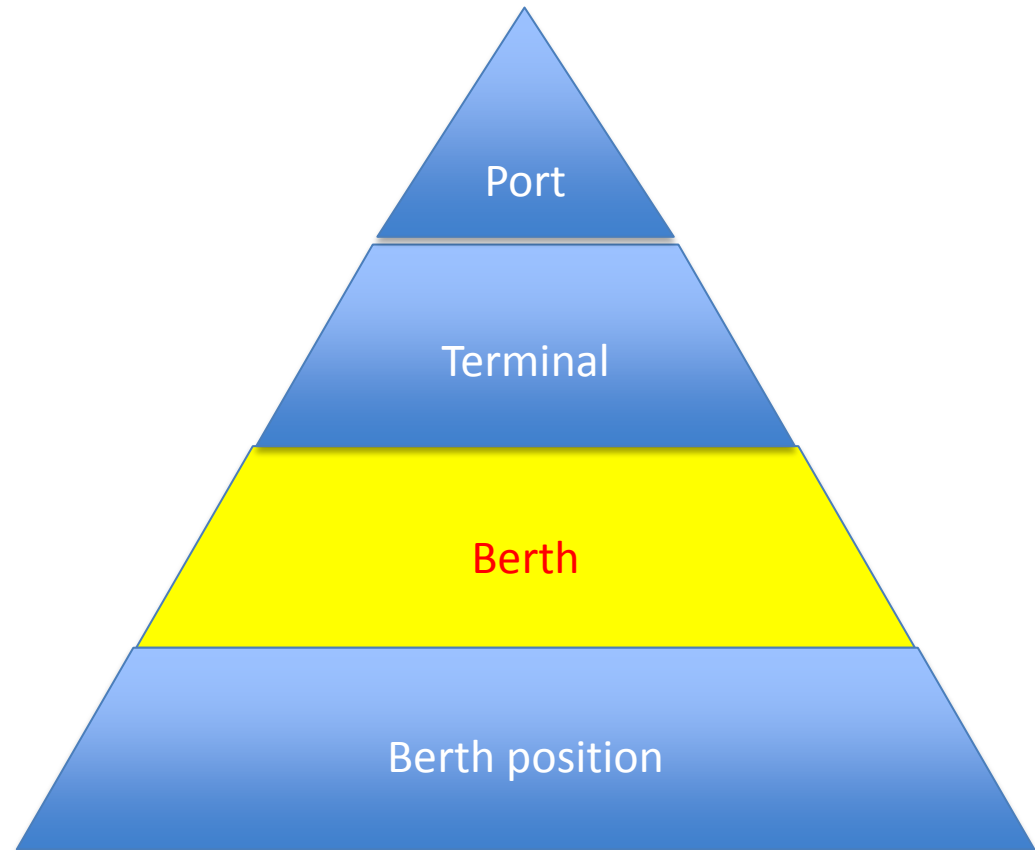
## GLN

Used in logistics industry, not yet in ports. ISO/IEC 6523, global governance

Proposal: GLN with attribute current local number or name

Decision: studying all options

Action: establish domain in IALA – Michael Bergmann / Jaco Voorspuij



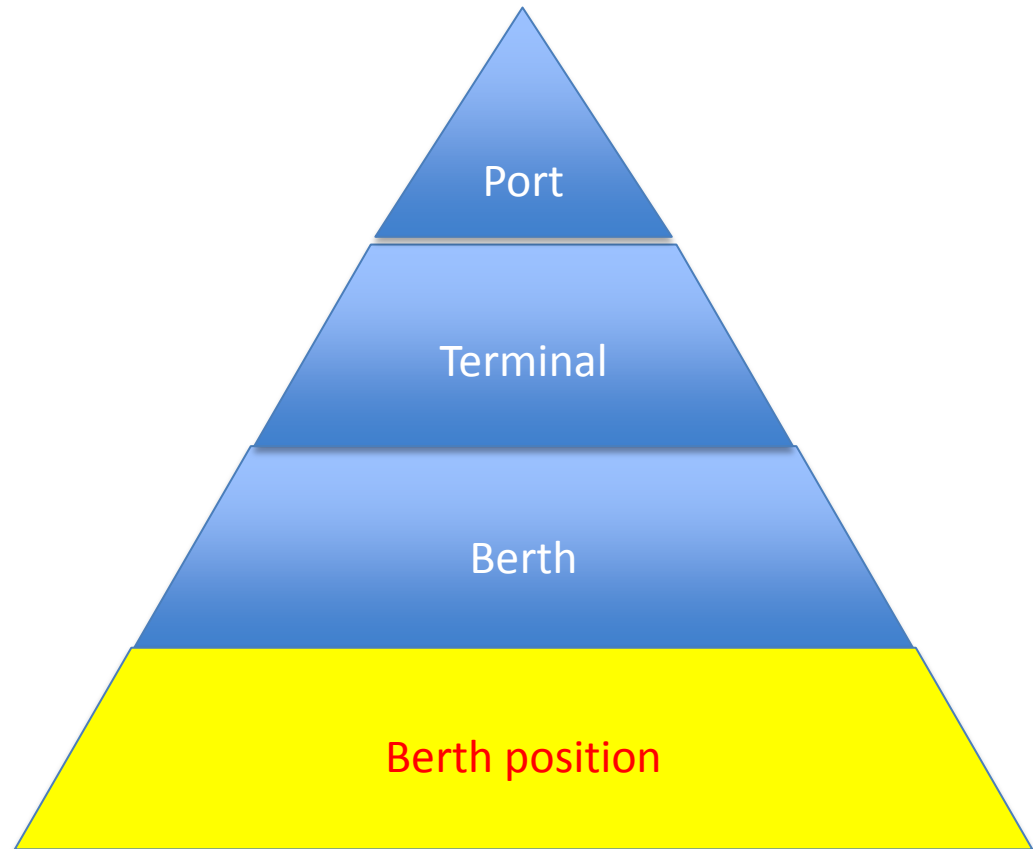
# To do - Master data– Direct reference- Berth position

The position along the line of the berth can be specified with one point:

- Qua walls: bollard number, 0,25 bollard accuracy (3 – 5 meter)
- Jetties: manifold number
- Roro: ramp number
- WGS84
- Latitude : (-) decimal degrees
- Longitude: (-) decimal degrees

Example:

- 51.886810, 4.284150



# To do - Master data– Indirect reference- Berth position

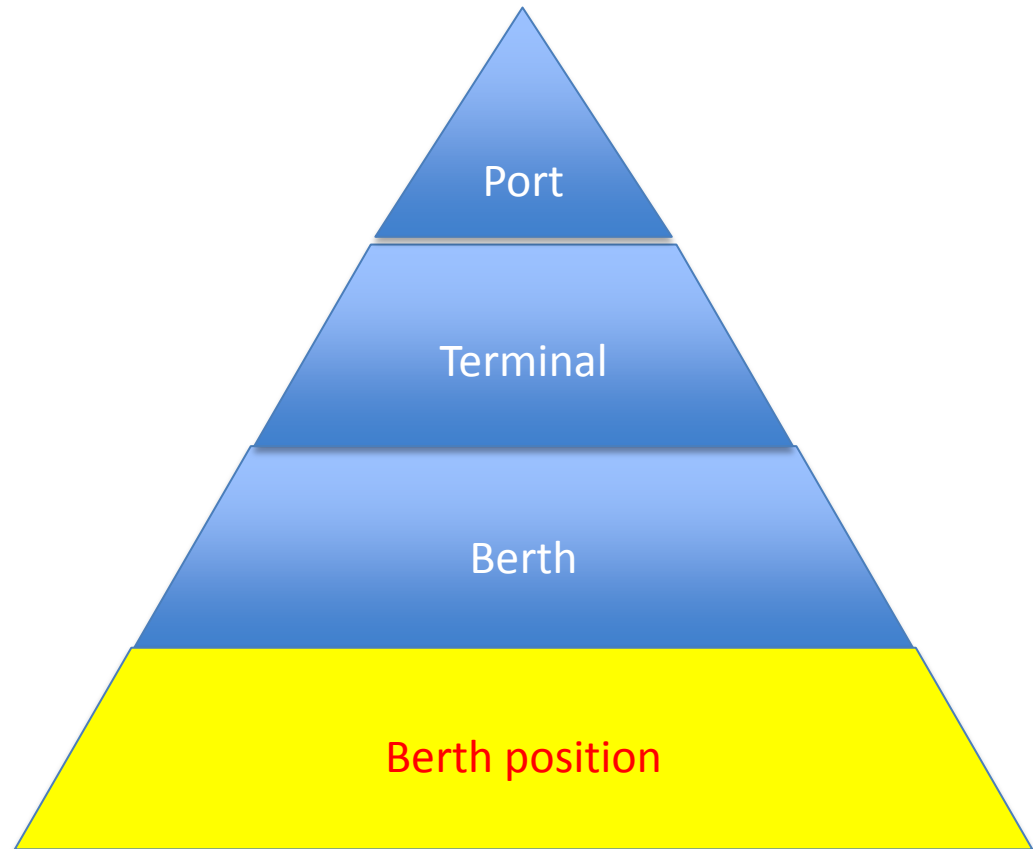
Berth number + Bollard /  
Manifold number (bollard  
accuracy 0,25 bollard or berth  
marks)

Proposal: GLN of Berth with  
extension

E.g. 01233456789123B6.25  
(GLN Berth: 0123456789123  
Bollard 6.25)

Attributes: current name or  
number of berth

Decision: studying all options  
Action: side of ship not in same  
format as position - Ben



# To do - Event data – Data definition - Starting principles

- Lean and flexible
- Facilitate local port needs
- Share data without port call ID
- Capture master data in event structure
- Open and existing industry standards:
  - Functional definitions of UKHO/IHMA document
  - Unique ID for ships: IMO number
  - Unique ID for ports: UNLOCODE
  - Unique ID for berths: GLN (ISO 6523)
  - Format for time: ISO 8601
  - Format for call numbers: Universally Unique Identifier(UUID) of Open Software Foundation
  - Format for structure: EPCIS (ISO/IEC 19987:2015)
  - Data format: JSON over HTTP
- Optional context identifiers
- Full technical specs on <https://github.com/PortCallOptimisation/port-call-event-format>

# To do - Event data – Data definition – Berthing time

Decision: not yet

Action:

- Edit format to include update re. berth position - Done
- Mention source of the data – Done
- Check time accuracy format with airline industry – Done
- Estimated times part of EPCIS – Jaco/Pim
- Look into structures for master data to inform about changes – Jaco

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



# To do - Event data – Data definition – Berthing time

Current time accuracy  
format used in air line  
industry

Decision: study other  
existing options

Action: Michael  
Bergmann will reach  
out

Draft proposal for standard on  
confidence interval for planning:

Event time (ETA): date/time

Upper confidence level ETA: +  
hours/minutes

Lower confidence level ETA: -  
hours/minutes

Example:

ETA 14:00

Upper confidence level ETA: + 0:30

Lower confidence level ETA: - 1:30

# To do – Review of port call message format to IALA

Feed back received as major comments:

- Not aligned with functional definitions of IHMA/UKHO
- Not accommodating berth position
- Not possible to share data without port call ID
- Not possible to include local events for daily operations
- Too rigid, too complex, cannot be maintained
- Too many fields are defined in the schema as enumeration fields, where coded fields would have been more appropriate
- Elements of format can be used, but better to start from scratch together with first hand stakeholders

Minor comments have not been listed here

Action: IALA and IHMA will be informed by Ben van Scherpenzeel – On 05/09/18 a meeting will be held to address these concerns



**REVIEW**

# To do - Maintenance of standards – Discussion

Maintenance is as critical as functional and data definitions.

While parties develop products, new needs will arise. Current EDI formats very painful to adopt.

Decision: no decision yet

Action:

- From existing organizations (UNCEFACT, IEC, CIRM), UNCEFACT looks most promising (already have a group originating from container shipping) – Jaco will contact them
- Discuss during next Taskforce meeting – Ben van Scherpenzeel



# To do – Publication of Best Industry Practice

Number of harbor masters with sea experience is decreasing, but number of harbor masters willing to share data is increasing.

IHO expressed the need for guidance for those harbor masters.

Based on:

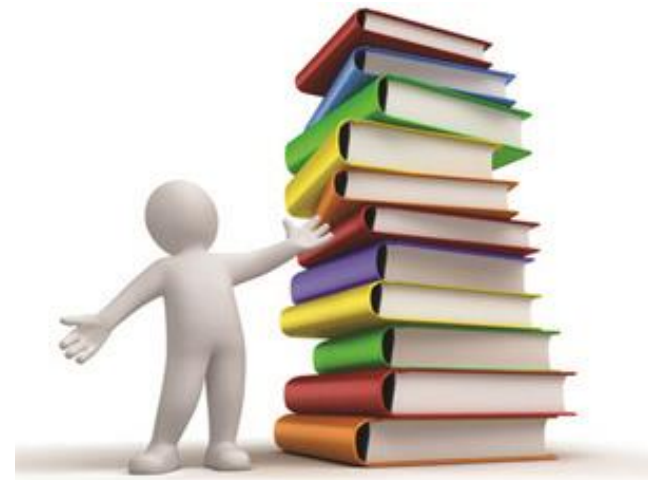
- Business process
- Business process appendix
- Functional definitions
- Data definitions

We can publish a first draft of a data reference model for ports and the business and legal background for doing so

Decision: agree

Action:

- Send context of initiative to IHO, UKHO and IHMA for sr. management sign off – Ben / Paul
- First draft ready by Q1 2019 – Ben/Paul/Jonathan



# To do - Endorsement IMO/IHO – Follow up

Decision: attending meeting IMO/IHO

Action:

- Align with Michael Bergmann for presentation at IMO HGDM meeting October 21 – November 2 meeting – Ben van Scherpenzeel



# To do - Endorsement IALA – Follow up

Decision: attending meeting IALA (post meeting)

Action:

- Present work to IALA congress 1-5 October 2018
- Present work to IALA congress 2020



# To do - Awareness of DG Move digital platform

Decision: check awareness of PCO within DG Move

- Check with DG Move – Jaco Voorspuij

Update: DG Move reports have been finalized and are now on a high level – versus data definitions which is hands on. Due to this gap today there is no clash. When DG Move requests for a 2<sup>nd</sup> mandate for a follow up, then we'll have to get involved.

Decision: Jaco is in the best position to be connected to DG Move

Action: get involved when DG Move requests for a 2<sup>nd</sup> mandate



# To do - Press release

Decision: press release re.

Industry Input Workshop

Action: send press release to  
participants – Ben van  
Scherpenzeel





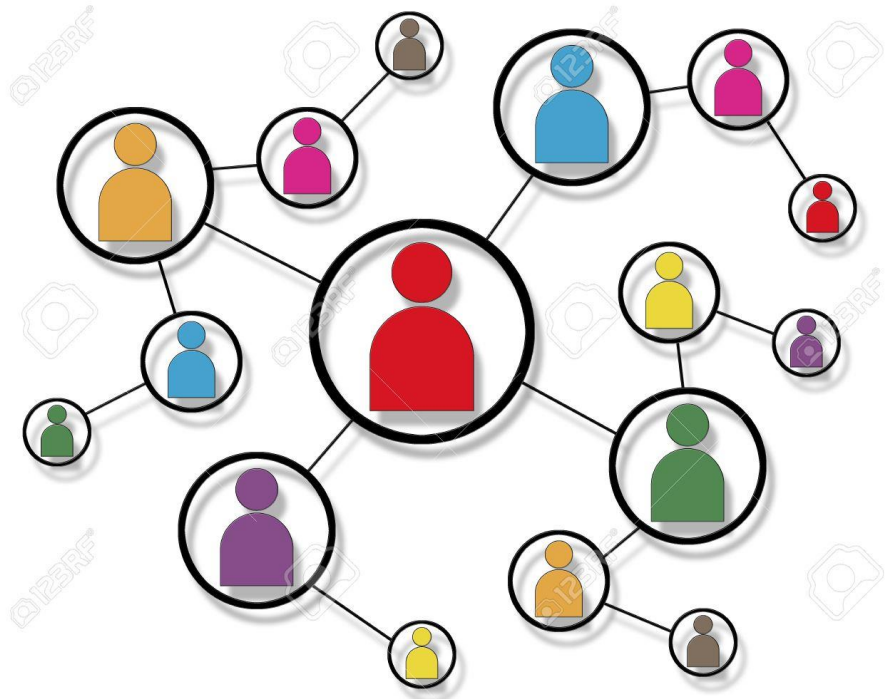
# To do - Next meeting, meeting minutes

- 01/08/18 expert group
- 02/08/18 share with experts
- 31/08/18 Taskforce meeting
- 05/09/18 expert group
- 06/09/18 share with industry
- 01/10/18 IALA meeting
- 21/10/18 HGDM
- 29/11/18 industry Input



Before and after the Industry Input Workshop there was a network event which were both well attended. Both will be organized again next meeting.

Action: Ben van Scherpenzeel



# Closing of meeting, network drinks

PAP36-9.5

