

Port Call Digitalization – How it helps your port.



Marlin SmartPort™

Today's Webinar

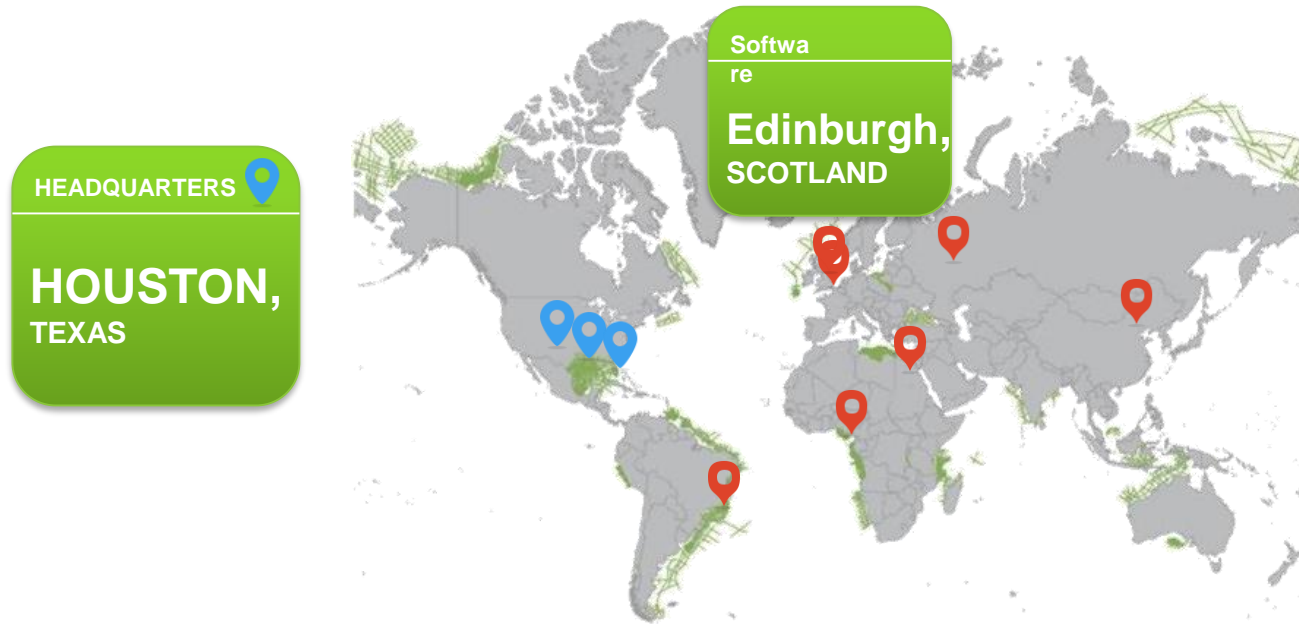
- How digital is my port?
- What is port call digitalization?
- The financial benefits of port digitalization
- How can my port move forward?

Housekeeping

- Please Mute Your Mic
- Please let us know if you want to ask a question in the chat box and what your question is about
- We will invite audience members to ask questions at the end
- We are recording the webinar

ION at a Glance

Powering Data-Driven Decisions



ABOUT

Delivering the power of data-driven decision-making

Technology leader with a history of innovation

Aligning offerings to select growing E&P and adjacent markets

50+ years in business

30+ years in software business

23 years on the NYSE (ticker: IO)

\$450B E&P market

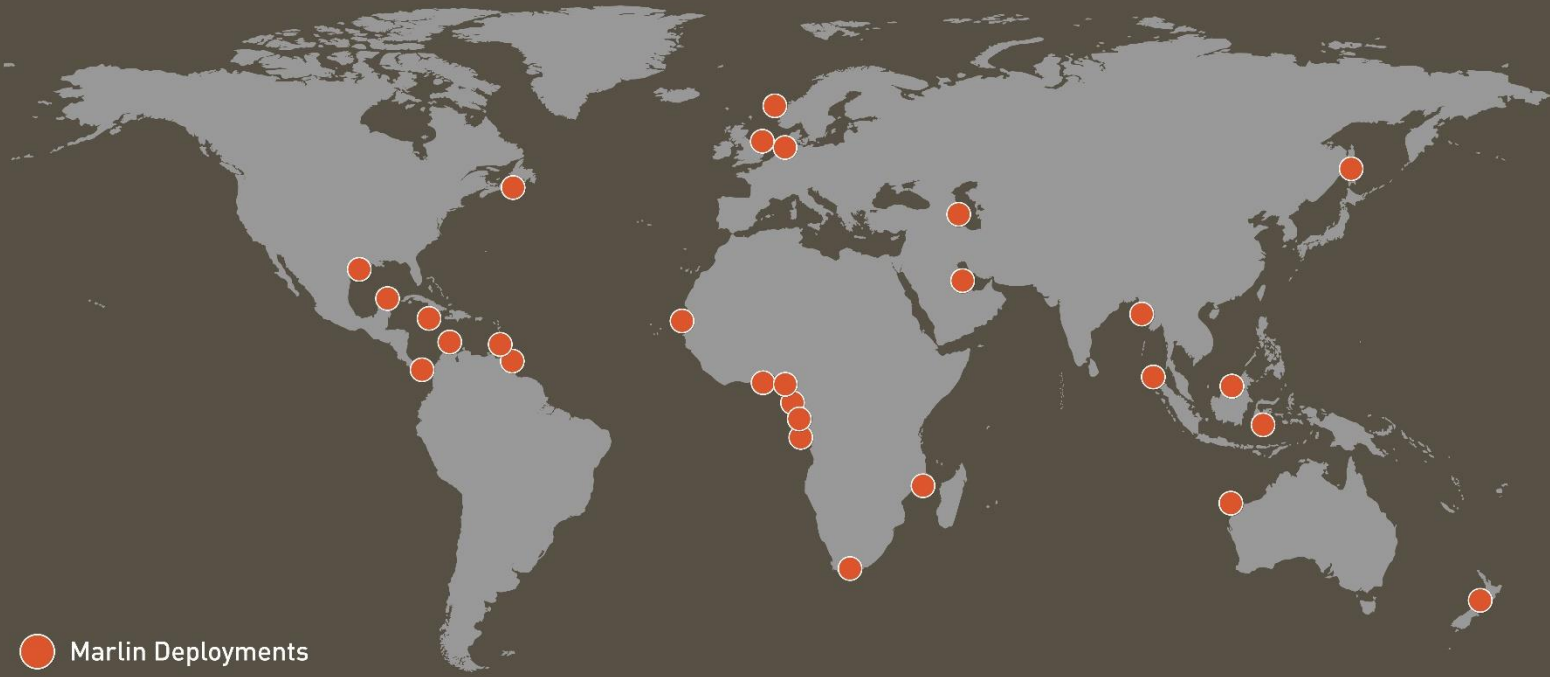
500 employees

10% revenues invested in R&D

500 patents

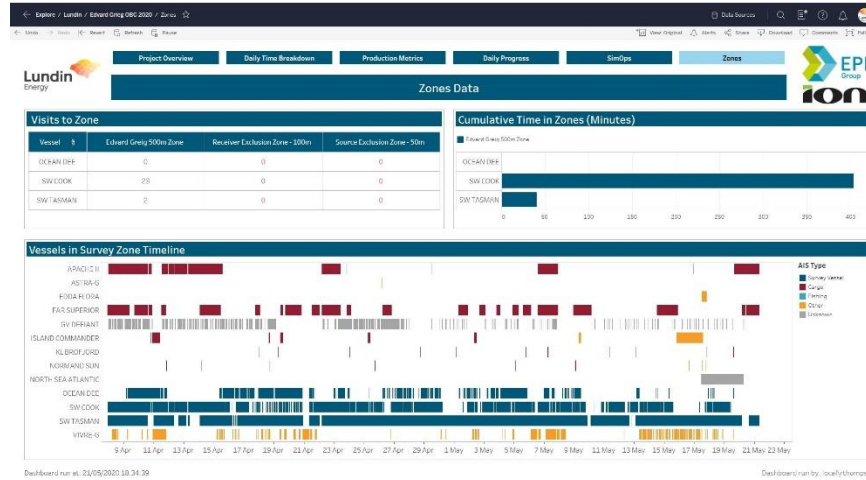
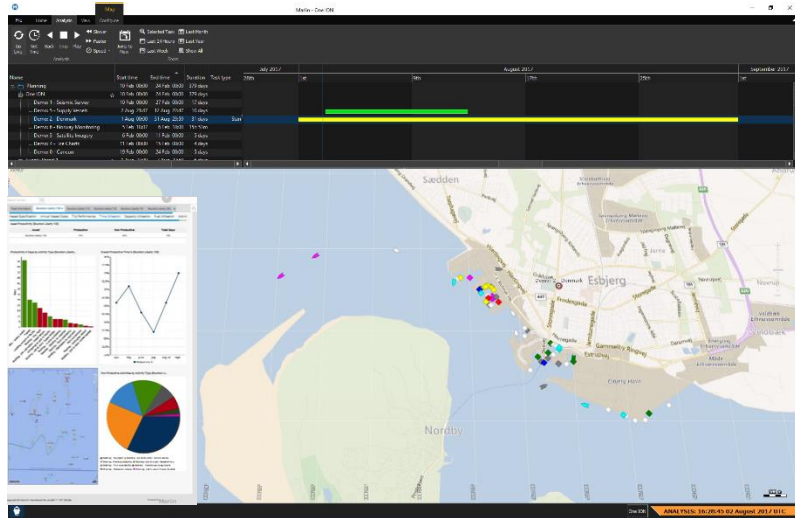


Successfully deployed in 140 locations globally



Marlin

Temporal and Spatial Situational Awareness

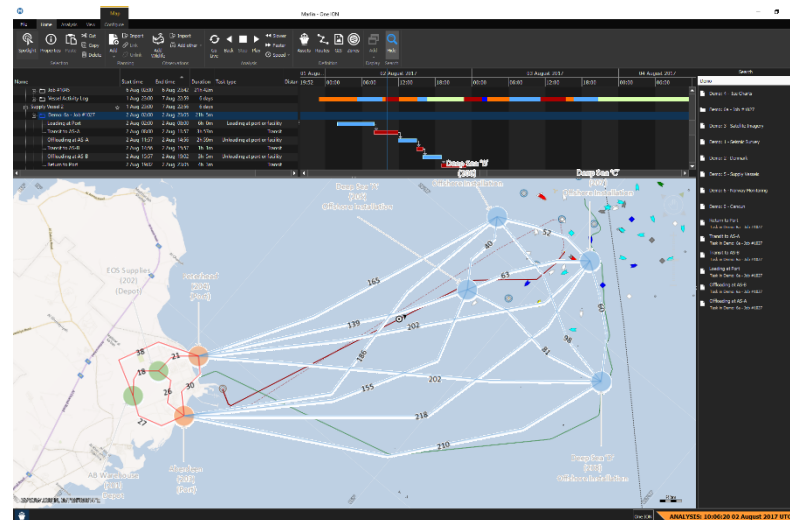
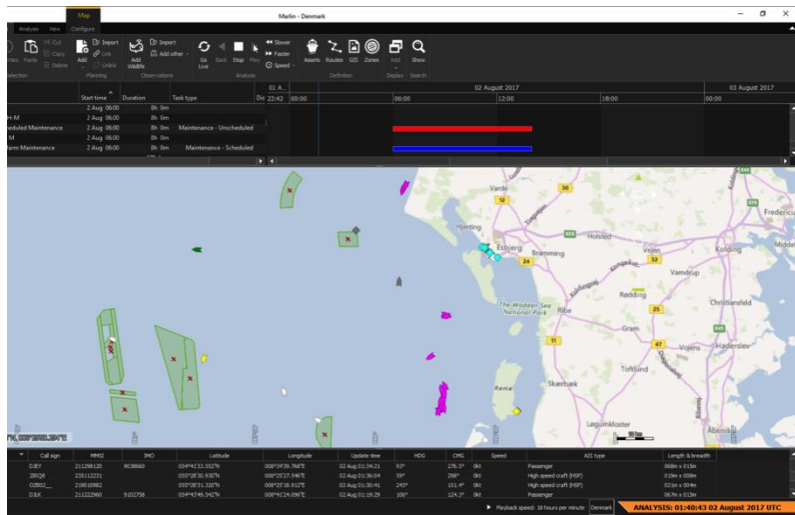


Gantt Chart w/ Map

- Time-sliding
- Cloud enabled, multi-user

Inputs

- Moving objects via AIS/GPS
- Relevant IoT data
- Weather / Waves & Currents
- GIS remote sensing
- Regulatory rules
- Operational plans & observations



Output

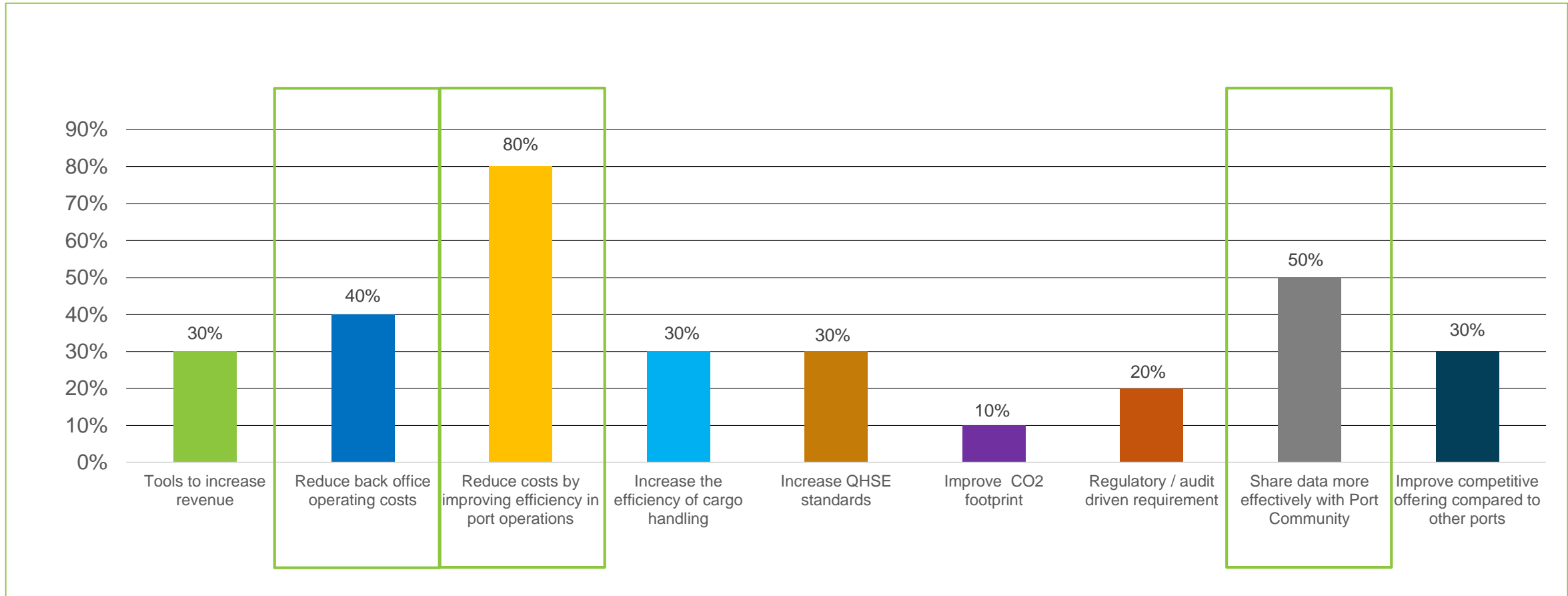
- KPI Dashboards
- Route Optimization
- Audit/Playback

How Digital is My Port? Feedback from UK Harbour Masters

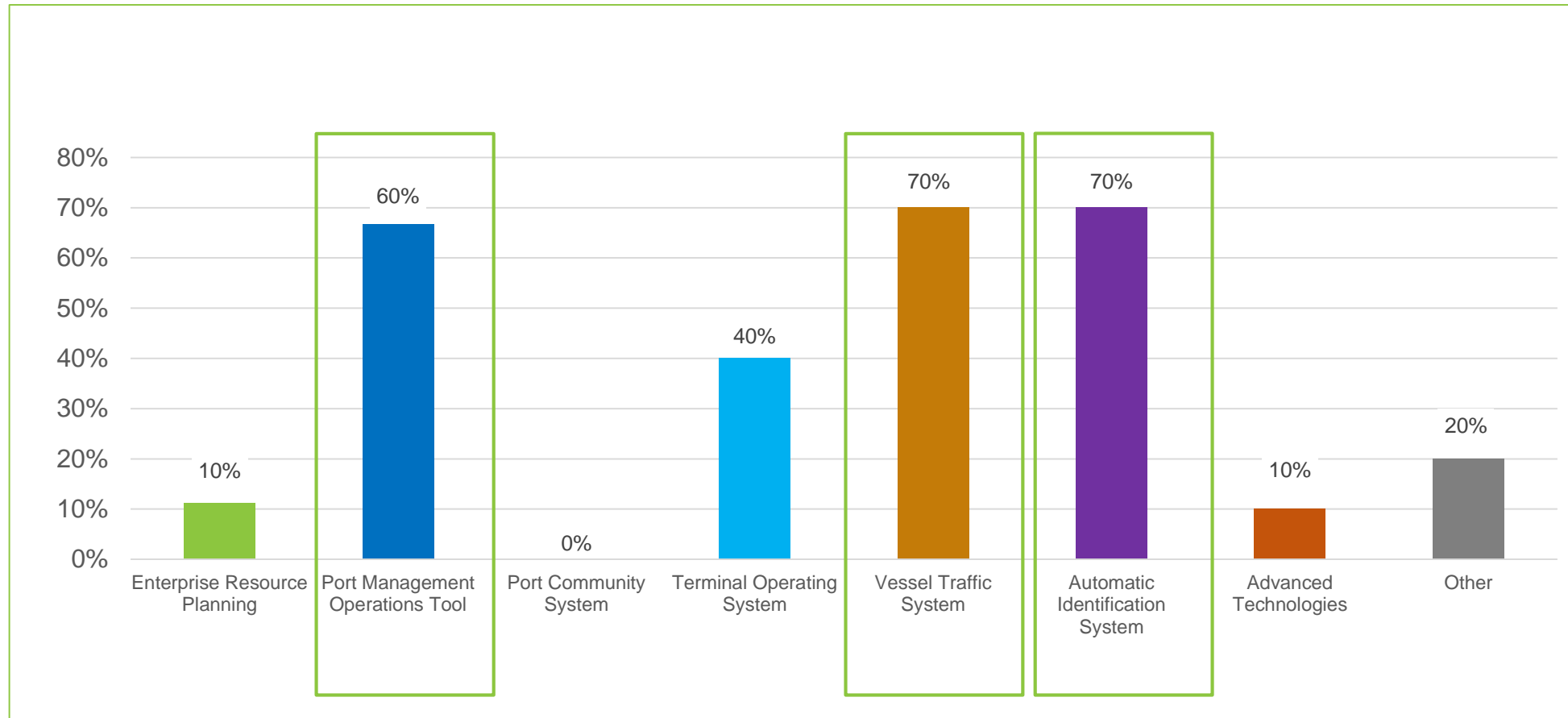


- How do your needs compare to this feedback from UK Harbour Masters?
- Survey sent out early May
- 10 ports organizations provided full responses
- We are happy to forward the survey to anyone that wants to add to our database
- Questions followed a simple track:
 - Why do you want to spend money on digital solutions?
 - What systems do you have at present?
 - What do you want to get from a digital solution?
 - What would stop you adopting a digital solution?

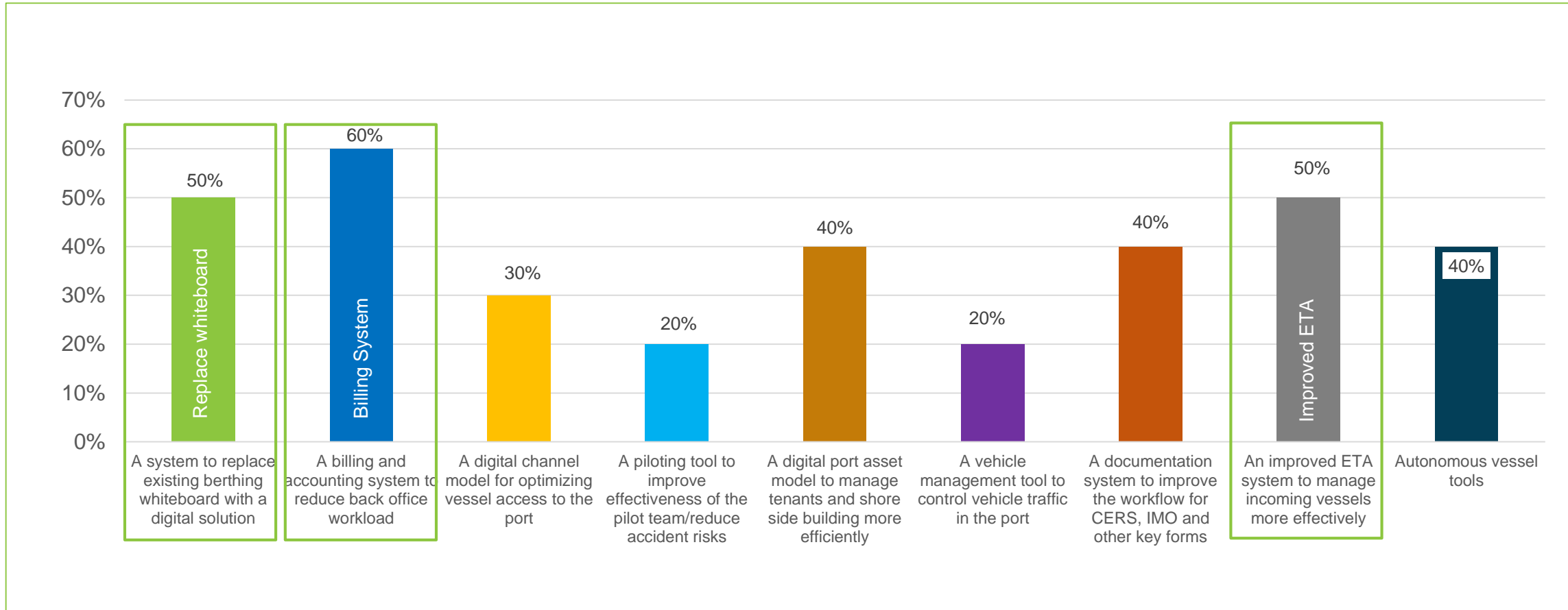
Q1: What are your top 3 key drivers for investment in new digital technology.



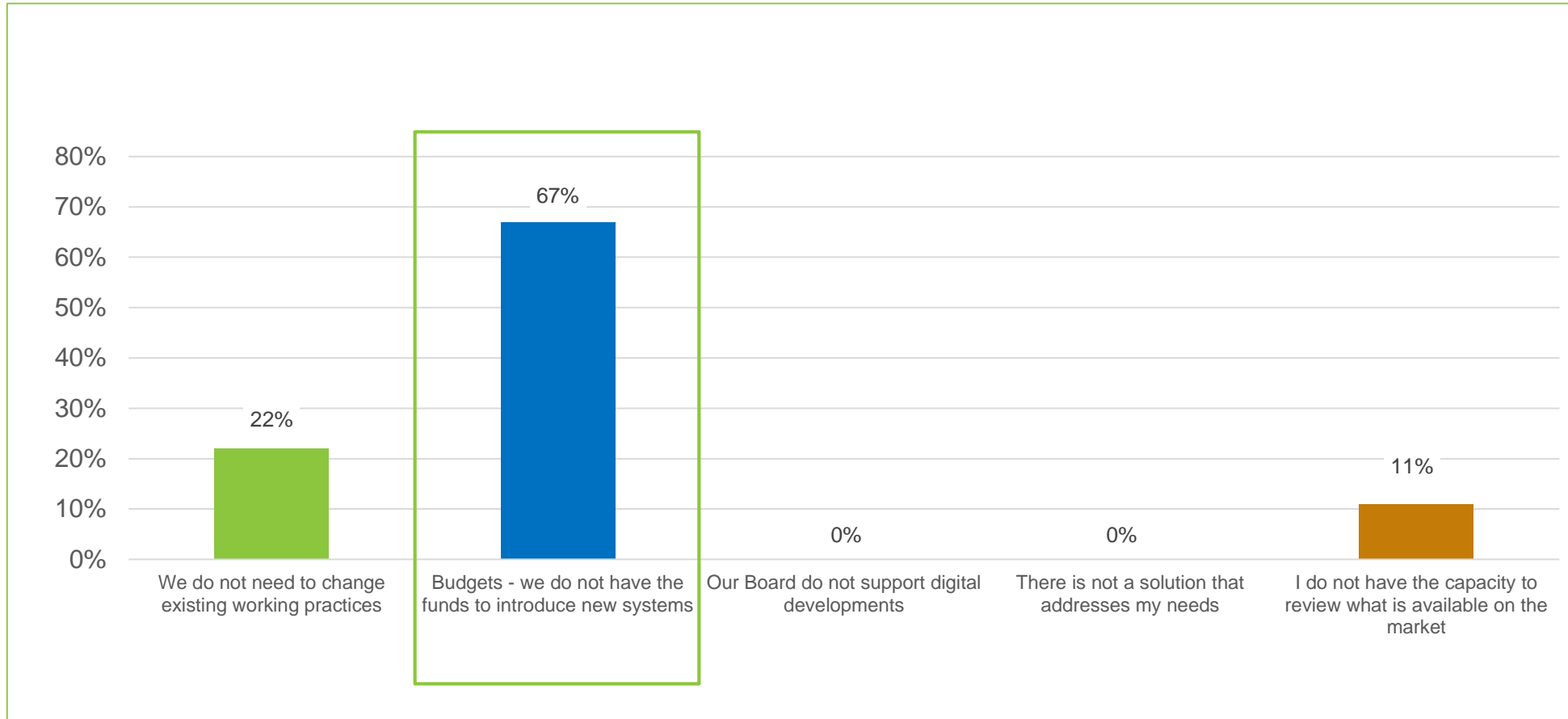
Q2: What **technology tools** do you **already use**, tick all that apply?



Q3: What are the top three tools that you would like to use?



Q4: What is the **single biggest barrier** to the adoption of digital solutions?



Key Survey Take-aways



- Ports are looking for new tools that improve efficiency and cut costs
- Those tools take existing analog processes and digitalize them
- The biggest barrier is budgetary
- 6 out of the 9 key drivers can be addressed by Port Call Digitalization
 - Reduce back office operating costs
 - Reduce costs by improving efficiency
 - Increase efficiency in cargo handling
 - Increase QHSE standards
 - Regulatory / audit trail requirement
 - Share data more effectively with Port Community
- 4 out of the 9 tools selected can be delivered by Port Call Digitalization
 - Whiteboard
 - Billing and accounting
 - Documentation
 - ETA

What is Port Call Digitalization?



- Port Call Digitalization means taking port processes and making them digital
- Digitization is taking data and making it digital
- Putting it simply – moving from paper to data
- The term also covers a number of initiatives that are coming online
 - IALA Standard 211
 - Port call message format for standardizing time stamps
 - Fits within the IMO Common Maritime Data Structure
 - Port Collaborative Decision Making – Port CDM
 - To enable enhanced coordination and just-in-time port call operations through collaboration and data sharing

The Financial Benefits of Port Call Digitalization



- Saves time and money
 - Only input data once
 - Reduces error
 - Improves efficiency
- Captures and timestamps all billable events with a full audit trail
- Supports clear QHSE and Audit practices
- Opens transparency of processes for the whole port community
- Makes the port more attractive to shippers and shipping lines as they can see the whole of their supply chain

Port Call Digitalization and the post-COVID port



“We will never go back to the way we were”

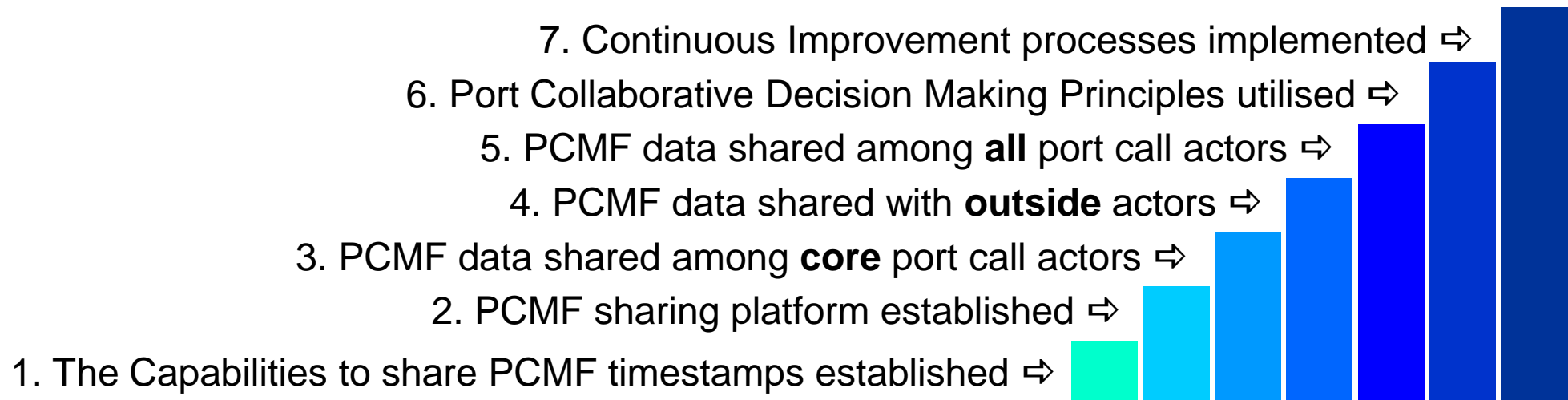
Port Call Digitalization enables:

- Remote working
- Data sharing among the whole port community

How digital is my port?

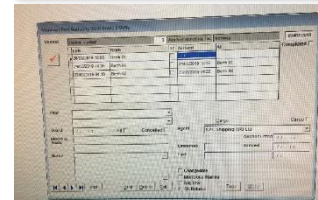
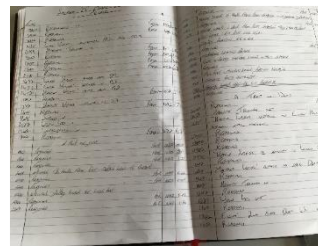


- The Port Collaborative Decision-Making maturity model
 - A useful tool for self assessment
 - Port Call Messaging Format
 - Audit document in preparation



How Can My Port Move Forward?

- Decide what your priorities are:
 - Most UK ports want to digitize their data
 - The survey feedback highlighted that priorities include port call management, improved vessel ETA information and optimizing the financial admin process
- For most ports digitizing core data is the essential first step



| VESSELS EXPECTED | BERTH | CARGO | AGENT | STEVEDORE | REMARKS |
|------------------|----------|-------|----------|-----------|---------|
| ... | 6 | ... | DEANSONS | ... | ... |
| ... | 2 | ... | SECTRA | ... | ... |
| ... | 3 | ... | J. LAURE | JET | ... |
| ... | 5/5 | ... | GAC | FUEL-HIF | ... |
| ... | 5 | ... | CUMBERB | ... | ... |
| ... | 6 | ... | ... | WHITES | ... |
| ... | 6 | ... | SECTRA | ... | ... |
| ... | 1, 2 + 3 | ... | COB | HIFUEL | ... |
| ... | 7, 3 | ... | GAC | ... | ... |
| ... | 6 | ... | AA | RIX | ... |

What is digital data?

Pre-arrival – setting up the port call



Canonmills Port Authority

09:57
Wed 6th May
AccuWeather

9.6°
9 nmi
1026 mb
2 [3]
kn

H 14:06 L 20:03 H 02:38 L 08:21
4.99 m 0.45 m 4.98 m 0.78 m







ion
Marlin SmartPort™

Look-up by:
Name
IMO
MMSI

Create Port Call ×

Vessel Unknown vessel Create vessel

Name IMO MMSI

-  PROMISE
IMO 9371816
-  PACIFIC AUKLET
IMO 2345674
-  PACIFIC DISPATCH
IMO 9456214
-  NORMAND PROSPER
IMO 9447952
-  PAPER MOON
IMO 8919855
-  PERFORMER
IMO 9376452

Arrival location

Charter agent

×

| | May 1 | May 2 | May 3 | May 4 | May 5 | May 6 | May 7 | May 8 | May 9 | May 10 | May 11 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Not Allocated | 13:00 | 01:00 | 13:00 | 01:00 | 13:00 | 01:00 | 09:57 | 13:00 | 01:00 | 13:00 | 01:00 |
| Berth 1 | | | | | | | | | | | |
| Berth 2 | | | | | | | | | | | |
| Berth 3 | | | | | | | | | | | |
| Berth 4 | | | | | | | | | | | |
| Berth 5 | | | | | | | | | | | |
| Berth 6 | | | | | | | | | | | |
| Berth 7 | | | | | | | | | | | |
| Berth 8 | | | | | | | | | | | |
| Berth 9 | | | | | | | | | | | |
| Berth 10 | | | | | | | | | | | |
| Berth 11 | | | | | | | | | | | |
| North Quay | | | | | | | | | | | |
| Out To Anchor | | | | | | | | | | | |

Cargo

[ADD CARGO](#)

What is a digital whiteboard?

Vessel Arrival



Canonmills Port Authority

09:45 Wed 6th May 9.6° 1026 mb 2 [H] 14.06 20:03 02:38 06:21 4.99 m 0.45 m 4.98 m 0.78 m

ion

| BERTH | QUAY | SCHEDULE | VESSEL | PORT OF REGISTRY | DIMENSIONS | BT | LOCATION | CHARTER AGENT | CARGO | NEXT PORT |
|----------|------------|--------------|------------------------------|-------------------------------|---------------------------|---------------------------|------------|---------------|----------------------------------|-----------------------------------|
| Berth 1 | South Quay | 09:00 May 08 | BRAGE VIKING IMO 9475791 | WILSON BELFAST IMO 9171060 | Saint John's (AG SJO) | 87.97 x 12.80 m 4.40 m | Berth 4 | Denholms | Fertilizer (Bagged) (+1 more) | Fionnphort, Isle of Mull (GB FIO) |
| Berth 2 | South Quay | 02:10 May 06 | SIEM RUBY IMO 9413444 | JAN VAN GENT IMO 9456721 | Rotterdam (NL RTM) | 142.95 x 18.90 m | Berth 6 | Delta Marine | | Bordeaux-Bruges (FR GID) |
| Berth 2 | South Quay | 02:30 May 06 | MAERSK CUTTER IMO 9649938 | JAN VAN GENT IMO 9456721 | Rotterdam (NL RTM) | 142.95 x 18.90 m | Berth 9 | Delta Marine | | Bordeaux-Bruges (FR GID) |
| Berth 3 | South Quay | 10:00 May 08 | MAERSK LIFTER IMO 9425734 | JAN VAN GENT IMO 9456721 | Rotterdam (NL RTM) | | | | | Bordeaux-Bruges (FR GID) |
| Berth 4 | South Quay | 11:31 May 07 | HEBRIDEAN SKY IMO 8802882 | Ballast Head (AU BAH) | | | | | | SSi) |
| Berth 5 | South Quay | 14:47 May 07 | ARKLOW FALCON IMO 9527659 | | | | | | | |
| Berth 6 | North Quay | 09:00 May 08 | JAN VAN GENT IMO 9456721 | BRAGE VIKING IMO 9475791 | | | | | | |
| Berth 7 | North Quay | 10:00 May 08 | MAERSK CUTTER IMO 9649938 | Halifax (CA HAL) | | | | | | |
| Berth 8 | North Quay | 15:00 May 14 | GRAND CANYON IMO 9614608 | ARKLOW FALCON IMO 9527659 | | 89.95 x 14.40 m | Berth 7 | | | |
| Berth 9 | North Quay | 10:07 May 14 | SKANDI BERGEN IMO 9417830 | Bergen (NO BGO) | 87.40 x 21.00 m 5.30 m | ✓ | Berth 2 | Rix | Chain & Anchors | |
| Berth 10 | North Quay | 15:00 May 14 | THAMES FISHER IMO 9145011 | GRAND CANYON IMO 9614608 | Montrose (GB MON) | 125.40 x 30.10 m | ✓ | Berth 7 | Fast Shipping | (UKCS) |
| Berth 11 | North Quay | 12:00 May 17 | VOS PATIENCE IMO 9742089 | | 83.40 x 18.00 m | | South Quay | | | |

CHECKLIST

Icons:

Standard timestamps and shared data

The Port Call



UN Locode:

Timestamps:

Canonmills Port Authority

09:53 Wed 6th May AccuWeather 9.6° 9 nmi 1026 mb 2 [3] kn H 14:06 L 20:03 H 02:38 L 08:21 4.99 m 0.45 m 4.98 m 0.78 m

JAN VAN GENT IMO 9456721 Port call ID 20-0504-0006 **START SHIFT DEPARTURE**

Last port: Rekefjord (NO REK)

15:10 May 04 → **Arrival** Berth 6 ✓ 4/4

15:14 May 04 → Delta Marine 01595 694799

02:10 May 06 → **Berth Shift Departure** Berth 6

02:30 May 06 → **Berth Shift Arrival** Berth 9

22:20 May 06 → **Departure** Berth 9 ⚠ 1/2

Next port: Bordeaux-Bruges (FR GID)

Schedule
Charter Agent
Location
Pilotage
Vessel
Details
Condition
Checklist

Arrival Schedule

Planned: 04/05/2020 15:10

Vessel ready time

Pilot boarding time: 04/05/2020 14:46

Actual time: 04/05/2020 15:10

Berth 6

| May 4 | May 5 | May 6 | May 7 | May |
|---------------|-------|-------|-------|-------|
| 01:00 | 13:00 | 01:00 | 13:00 | 01:00 |
| Not Allocated | | | | |
| Berth 1 | | | | |
| Berth 2 | | | | |
| Berth 3 | | | | |
| Berth 4 | | | | |
| Berth 5 | | | | |
| Berth 6 | | 09:53 | | |
| Berth 7 | | | | |
| Berth 8 | | | | |
| Berth 9 | | | | |
| Berth 10 | | | | |
| Berth 11 | | | | |
| North Quay | | | | |
| Out To Anchor | | | | |

Charter Agent

Full name -
Name -
Telephone number -

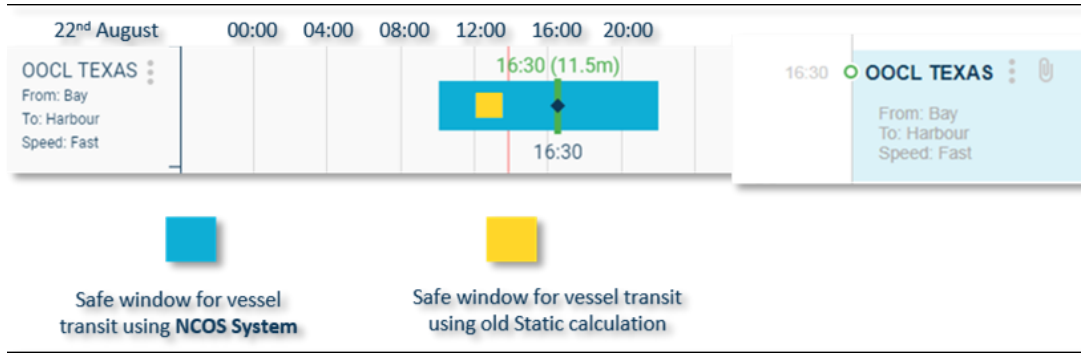
Where can you go after you digitize?

Further Enhancements



- Once data is held in a **digital** format it can be shared with other systems to solve problems

➤ Digital channel model



➤ Smart berthing

NPCC Create Port Call interface showing vessel details (B-42), schedule (22/04/2020 15:45), and cargo information. The interface includes a sidebar with navigation icons and a main panel with various controls and data fields.

➤ Port asset management

Port asset management dashboard showing a 3D map of the port area with various assets and structures. The dashboard includes a sidebar with navigation icons, a main map area, and a legend for Tank Utilisation (0% - 100%).

Port Arrival 14:14 Feb 06 +02:00 Planned ETA/Variance to Plan +Late -Early

Port Movement: Berth Departure

Port Movement: Berth Arrival

Port Departure

Marlin SmartPort

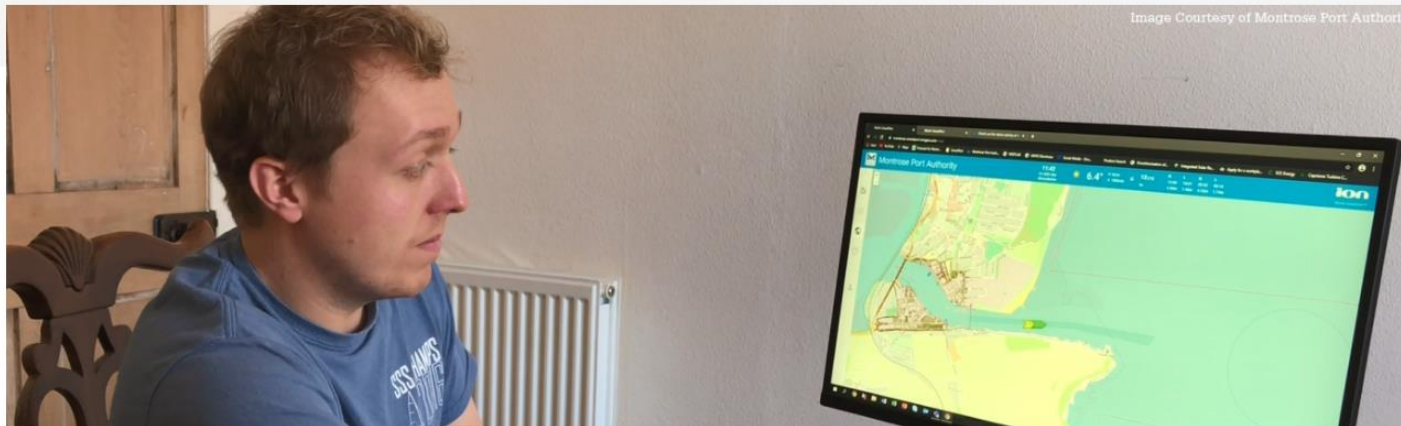
Customer Feedback & Free Trial offer

Montrose Port Authority CEO: *“We are on a journey to become one of the smartest ports around and Marlin SmartPort is a major leap forward for Montrose Port Authority, replacing highly manual port operation procedures, with an efficient, integrated digital system. We have seen an immediate value from the system and are looking forward to expanding further”*



Marlin SmartPort™ – Port Management Solution Free Trial

Is your Port being challenged to keep your Port Community informed with vessel activities when personnel are working remotely and unable to easily access data?





- **Question and answers**





Powering data-driven decisions

