TIDALIS

Maritime Flow Management
- A condition for Greener Ports

Transport Events session 2, 4:15 pm, 23 October 2024

Speaker

⬈ After serving 18 years in The Royal Netherlands Navy, Pieter joined Tidalis (or previously named "HITT Holland Institute of Traffic Technology B.V."/ "Saab Technologies B.V.") and started his second career in the Vessel Traffic Services (VTS) domain.

⬈ In the last 20+ years, Pieter is active in Maritime Surveillance business in Europe, South America and Asia. As a permanent resident in Hong Kong, Pieter has witnessed the deployment and development of the 2nd and 3rd generation of Hong Kong VTS System.

Pieter van Vrijberghe de Coningh

Managing Director

Tidalis APAC Limited

Decades of experience

But a relatively new name

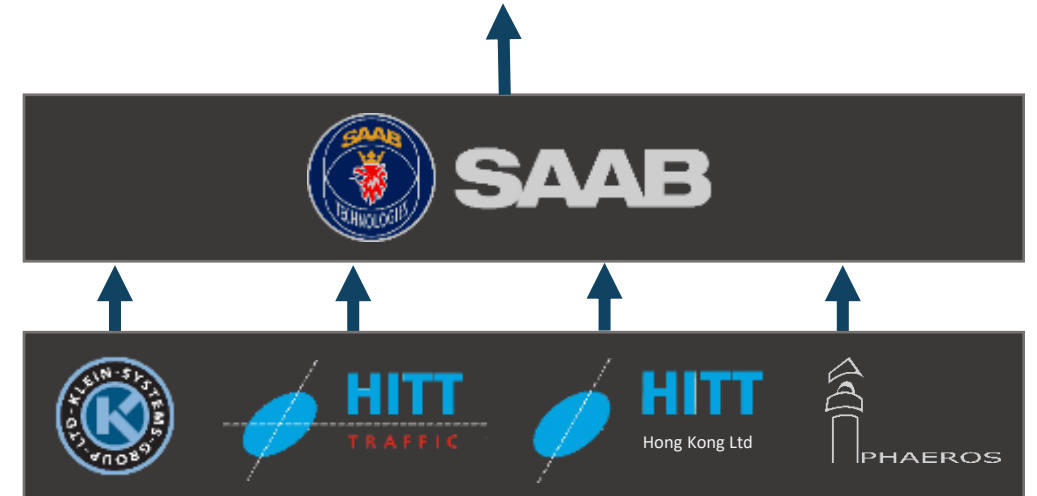Tidalis is the home of real-world-impact and innovative people. We are a team that's been forging ahead with years of experience to deliver top tech assistance to the maritime industry

↗ Maritime software solutions

↗ Offices :

_Canada (AMERICAS)

_Hong Kong (APAC region)

_Netherlands (HQ and EMEA)

_Sweden

↗ 200+ Employees

Our solutions

An essential range of real-time processing and operational management tools

↗ **Vessel Traffic Service**

The indispensable tool to ensure safe and efficient shipping

FOR PORT AND WATERWAY AUTHORITIES

↗ **Port Management**

Manage vessel visits, port operations, property and billing in one integrated solution

FOR PORT AUTHORITIES

↗ **Pilotage Management**

Get the right pilot for the job, one source of truth for data and automated billing

FOR MARITIME PILOTS

↗ **Coastal Surveillance**

Full situational awareness to make every operation count

FOR COASTGUARDS

↗ **Offshore Protection**

Round the clock monitoring vessel traffic near offshore installations to warn for dangerous situations

FOR OFFSHORE INDUSTRY

↗ **AIS Network**

Advanced tooling to manage AIS networks that supports the latest developments

FOR AIS NETWORK MANAGERS

References

Just a few highlights

↗ **Australia**

_Port Hedland

_Great barrier reef (MSQ)

↗ **Asia**

_Hong Kong

_Shanghai

_Singapore (NGVTMS prototype)

↗ **Europe**

_Peel ports

_Port of Tyne

_Rotterdam

↗ **Americas**

_Port of Los Angeles

_Halifax

References

214

Companies

111

Ports

179

VTS Shanghai

China

Sensors
- 21 radars
  - X-band
  - S-band
  - Magnetron
  - Solid state
- National AIS
- 4 RDF

Operation
- 2 traffic centers
- 33 Desks

Hong Kong

Sensors
- 14 radars
  - Solid State
  - Terma SC 5102 & 5202
- AIS Network
  - 10 dual base stations
- 6 RDF
- 17 CCTV
- Vessel Height Detection
- 26 Microwave links

Operation
- 2 traffic centers
- 18 Desks
- 80 workstations

Port of Rotterdam

The Netherlands

Sensors
- 43 radars
  - X-band
  - Magnetron
  - Solid state
- 6 AIS base stations
- 3 RDF
- 37 CCTV cameras

Operation
- 2 traffic centers
- 20 VTSO desks

TIDALIS

Vessel Traffic Service / Coastal Surveillance

↗ Maritime Control

_In line with IALA recommendations

_Highly reliable, field-proven, solution.

_Scalable from single AIS receiver / single display systems to nation-wide coverage

_Versatile: coastal regions, ports, inland waters and infrastructure protection at sea

'One of the things that has always continued to work in our port in the past two decades is the Tidalis VTS system.'

Telecommunication Manager,
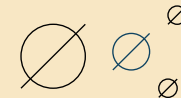Port of Antwerp

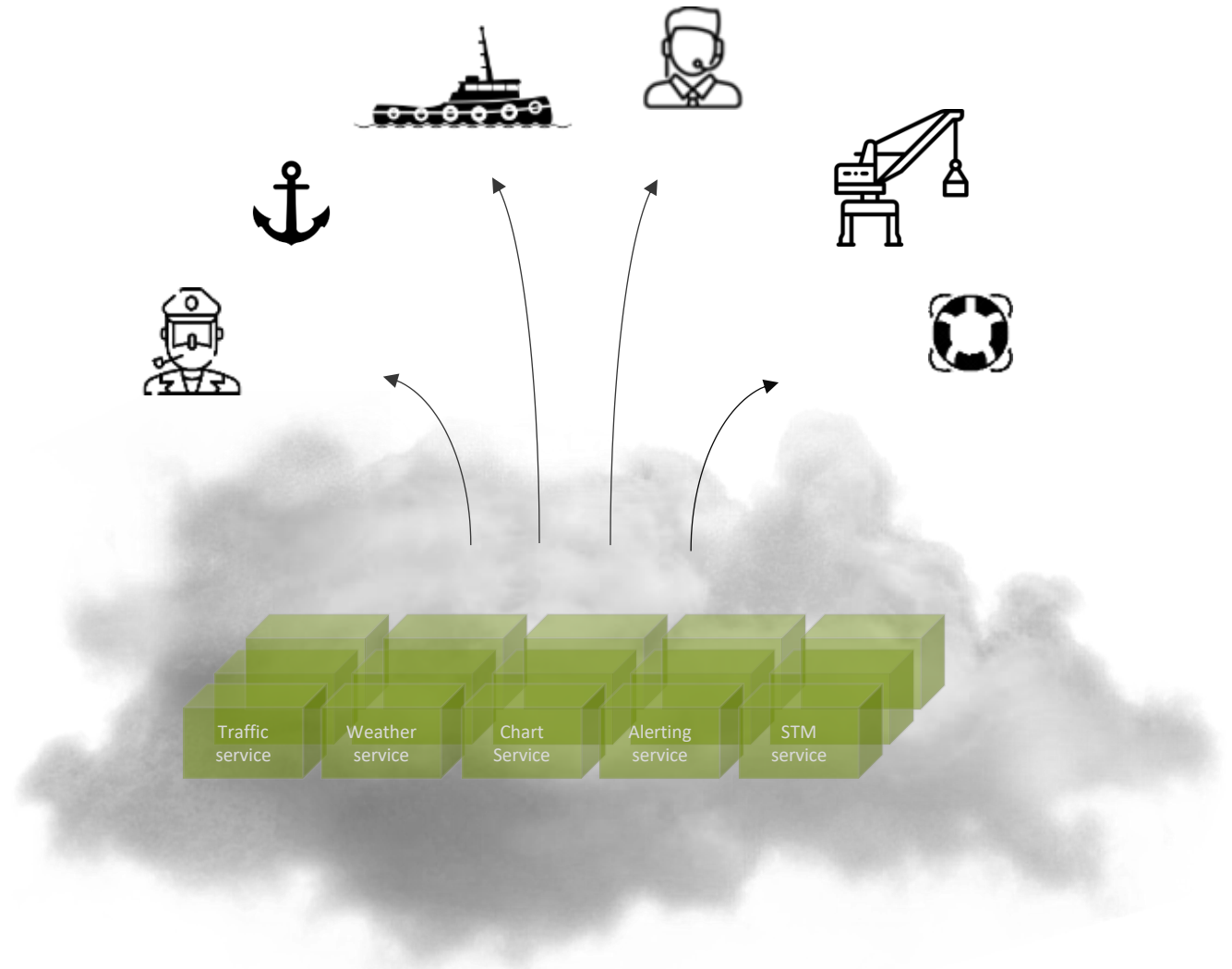| Traffic centres	Years of loyalty	Uptime	Highly reliable	Best in class tracking
70+	25+	99.995%		

VTS & AIS Solution

MartimeControl Service Suite Edition (MC-SSE)

↗ Next generation system architecture

_ Web front-end

_ Desktop, tablet, mobile

_ 3rd party chart overlays

_ Cloud Agnostic technology (vs. monolithic)

_ On premise

_ External Cloud Service

_ Open but secure

_ Single sign-on

_ REST API's

_ Extendibility

_ Small containers

Version pA1

Traffic service   Weather service   Chart Service   Alerting service   STM service

Service-oriented architecture

Human Machine Interface

Machine To Machine

Application Programming Interface (API)

Maritime Service Suite

Route Services	VTS Services	Traffic Services	Radar Services	AIS Services	ENC Services	EDI Services
Mail Services	Meteo Services	Alarm Services	Video Services	Security Services	STM. Services	.... Services

Internet of Things (IoT)

Third party Data Providers

3rd party contribution

E.g. using open-source solutions a requirement for better results

⤴ Company strategy

_ Use industry standards where possible

_ Focus on our own added value, use 3rd party products for generic functions

_ Only use well supported and proven 3rd party products

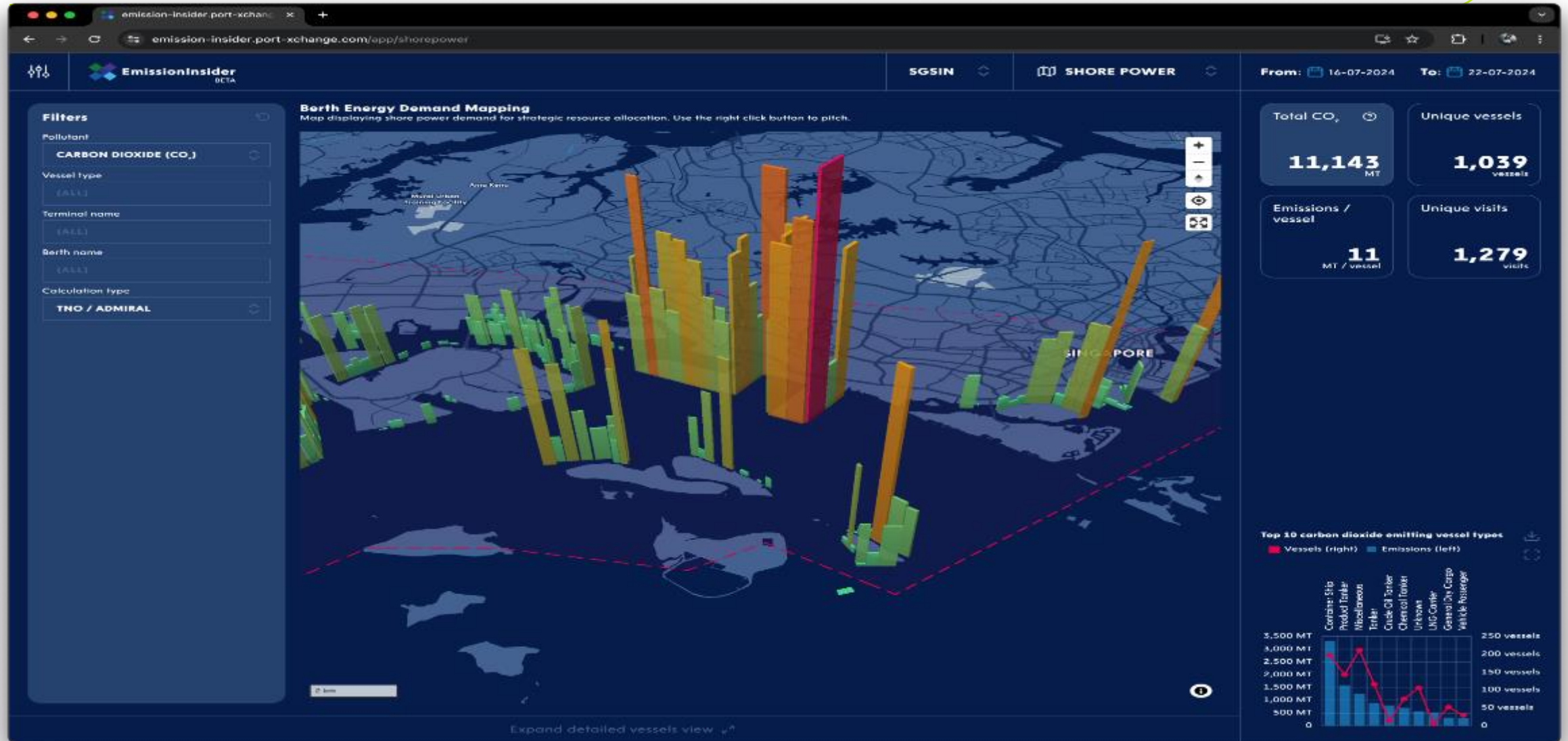_ Be able to switch to alternative solutions without loosing everything

⤴ Knowledge

_ Customer can gain knowledge from 3rd party resources

_ External Training

_ Web (github, stack overflow, youtube etc)

⤴ Infrastructure can be shared with other systems

⤴ Open source ≠ for free
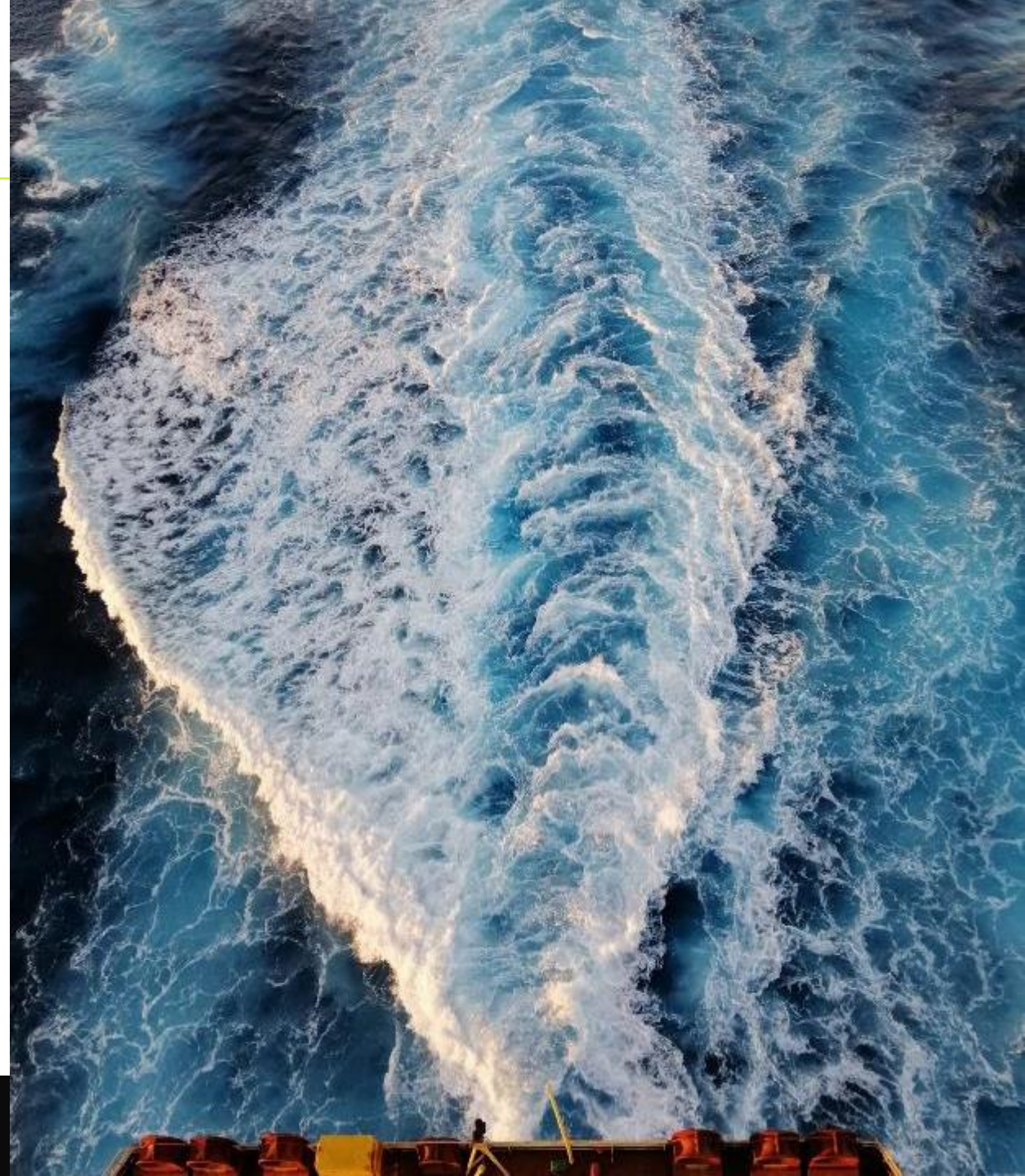
Dashboard Greenhouse Gas Emissions

Multi Dimensional VTMS

↗ More optimized arrival planning and route planning (JIT arrival)

↗ Better communication and transparency between stakeholders is a must

↗ Shared Situational Awareness.

↗ Less confusing messages on VHF > Silent VTS

↗ More attention for digital communication technologies (previous e-navigat*on)* including additional carriage Requirements for vessels? When?

Decarbonization – more and more a safety topic

↗ 50% of IMO targets for decarbonization can be achieved through slow sailing – JIT arrival

↗ 70% of container vessels is more than 10 years old

↗ At this moment according to BIMCO average age 14.2 years: highest average in last years. That means alternative fuels in absolute numbers play a limited role.

↗ Key to IMO decarbonization targets is better arrival planning – Green Digital lanes as example

Next steps:

↗ Identifying Third-Party applications that add-value to our customers and integrate them as a service into MC-SSE

↗ More effort on predictive technologies (ML/AI) – using reliable data sets

↗ Improve JIT arrival – transparency between actors is required.

↗ Actively working on adding more dimensions – surface/air/subsurface/space

TIDALIS

We make the maritime world safe, secure and efficient

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