OCIMF Day

26 September 2023

OCIMF

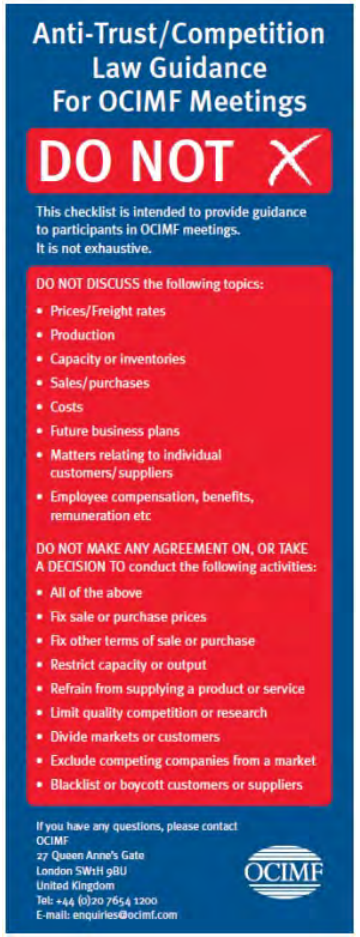
OCIMF strategic overview

Saurabh Sachdeva
Publication and Advocacy Director

OCIMF

OCIMF Anti-trust/competition law guidance rules & anti-trust statement

Legal guidance

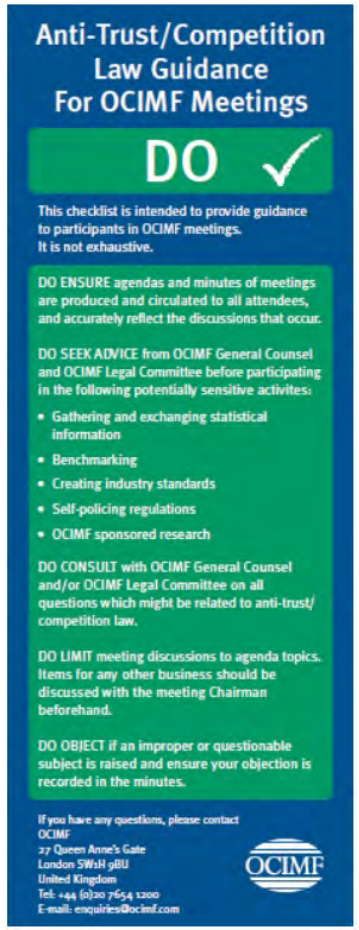


DO NOT discuss the following topics:

- Prices/freight rates, production, capacity or inventories
- Sales/purchases, costs, future business plans
- Matters relating to individual customers/suppliers
- Employee compensation, benefits, remuneration etc

DO NOT make any agreement on, or take a decision to conduct the following activities:

- Fix sale/purchase prices or terms of sale or purchase
- Restrict capacity or output
- Refrain from supplying a product or service
- Limit quality competition or research
- Divide markets or customers
- Exclude competing companies from a market
- Blacklist or boycott customers or suppliers



Limit meeting discussions to agenda topics.

Items for any other business should be discussed with the meeting Chairman beforehand.

Object if an improper or questionable subject is raised and ensure your objection is recorded in the minutes.

Seek advice from OCIMF General Counsel and OCIMF Legal Committee before participating in the following potentially sensitive activities:

- Gathering and exchanging statistical information
- Benchmarking
- Creating industry standards
- Self-policing regulations
- OCIMF sponsored research
- Consult with OCIMF General Counsel and OCIMF Legal Committee on all questions which might be related to anti-trust/competition law

112 International oil & gas corporations

Our members

A small selection of member logos

EXCELERATE ENERGY
CNOOC
PHILLIPS 66
OXY
equinor
REPSOL
MARTIN MARINE
TESORO
INEOS
Kuwait Oil Company
TotalEnergies
Chevron
bp
IMT
ExxonMobil
BR PETROBRAS
HELLENIC PETROLEUM
IndianOil
ConocoPhillips
enoc
raizen
Reliance Industries Limited
PIMA Petroleum Industry Marine Association of Japan 1971
石油海事協会
PETROPERU
BASF We create chemistry
MEDCOENERGI
NuStar Energy L.P.
AMPOL
Harbour Energy
Santos
ADNOC
HESS
mms
saudi aramco
preem
eni
VIVO ENERGY
Pan American ENERGY
Nigeria LNG Limited
angola LNG
centrica
NESTE
MARQUARD & BAHLS
ESSAR OIL UK
World Fuel Services
PERTAMINA
woodside

Overview

Founded in 1970

IMO consultative status since 1971

Initial focus on reducing oil spills & general safety

Over 53 years on – focus on safety, security, health, environment & human factors

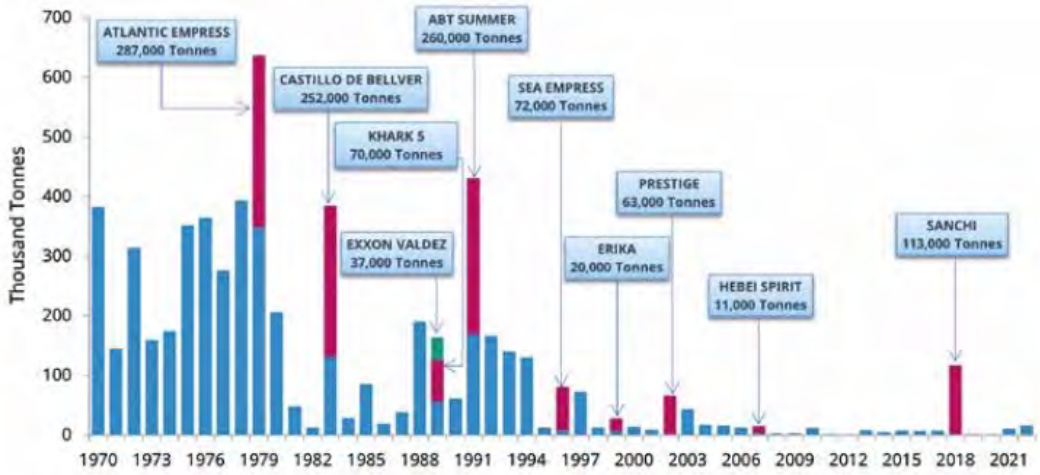
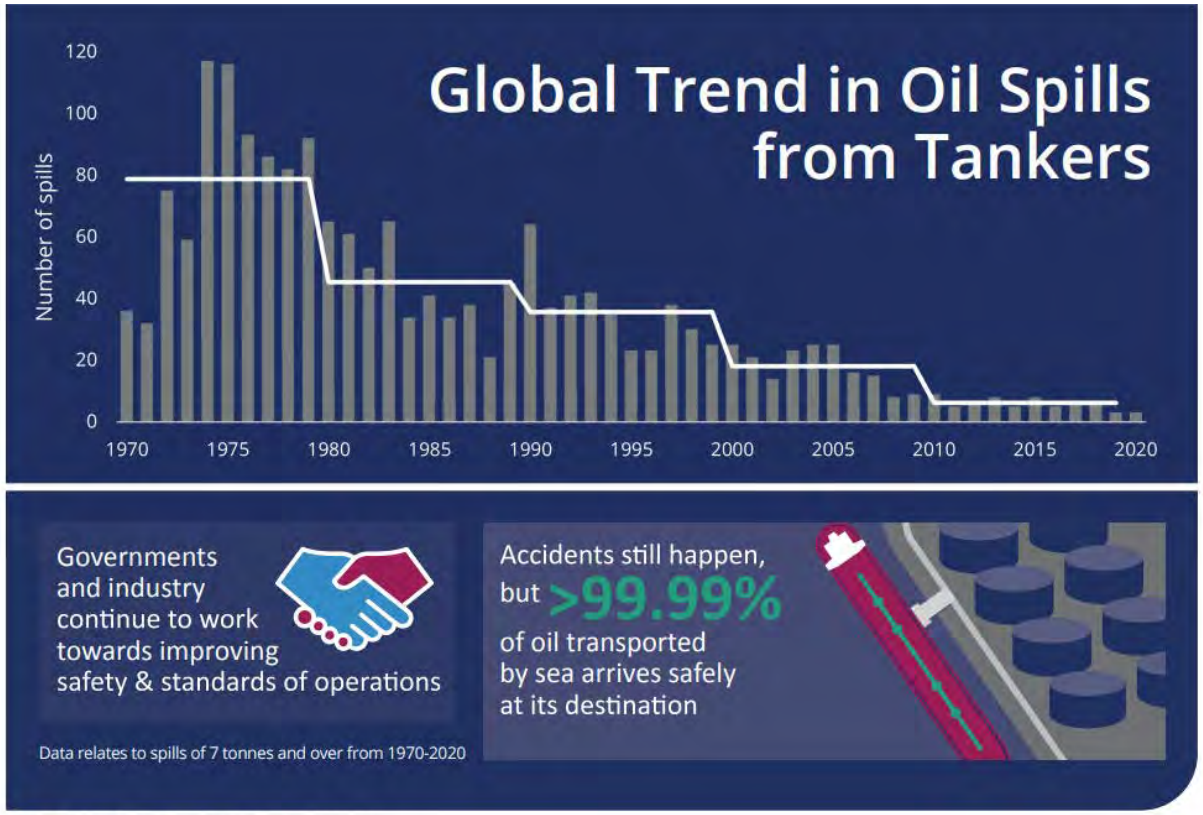
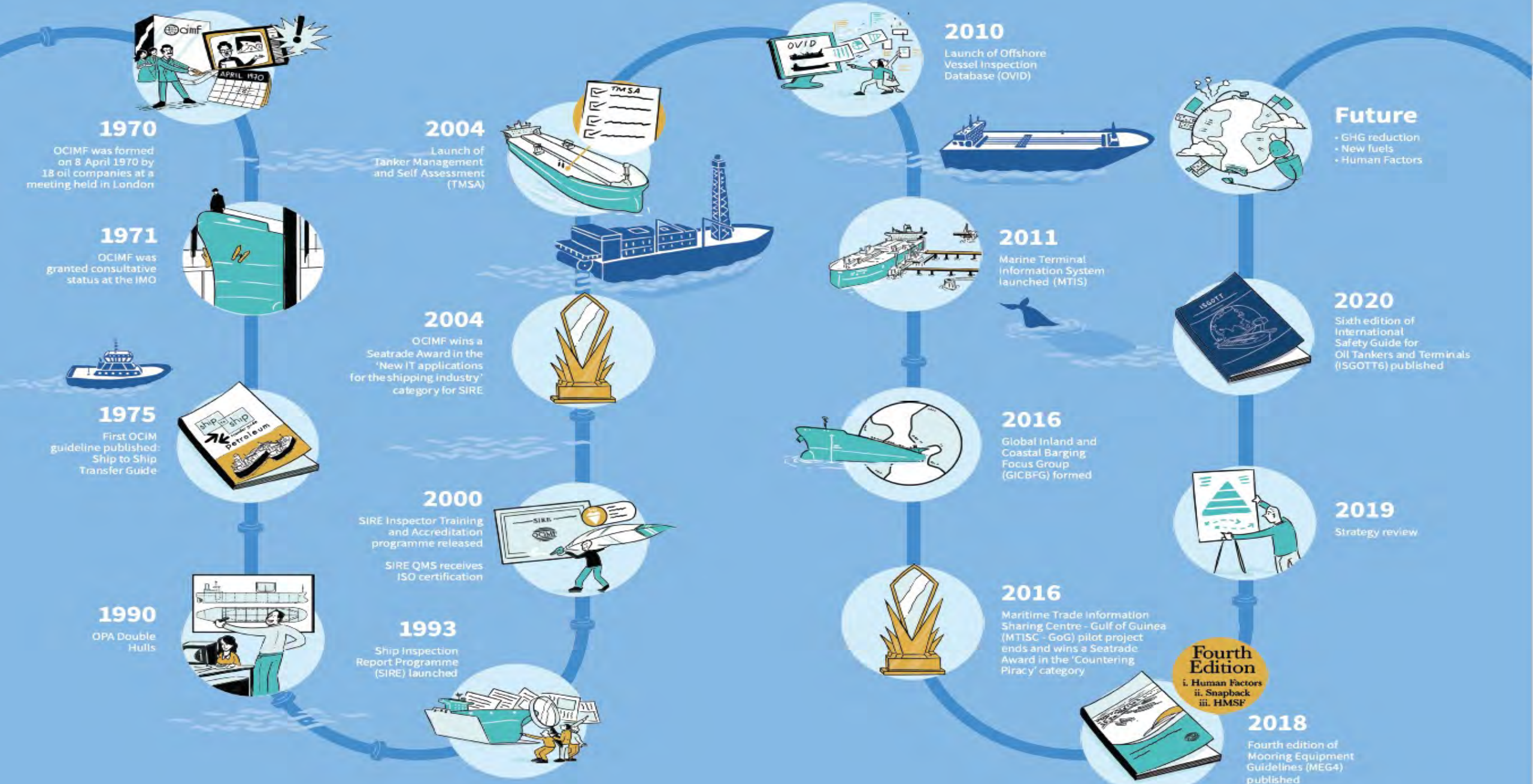


Figure 6: Quantities of oil spilt 7 tonnes and over (rounded to nearest thousand) from tanker incidents, 1970-2022



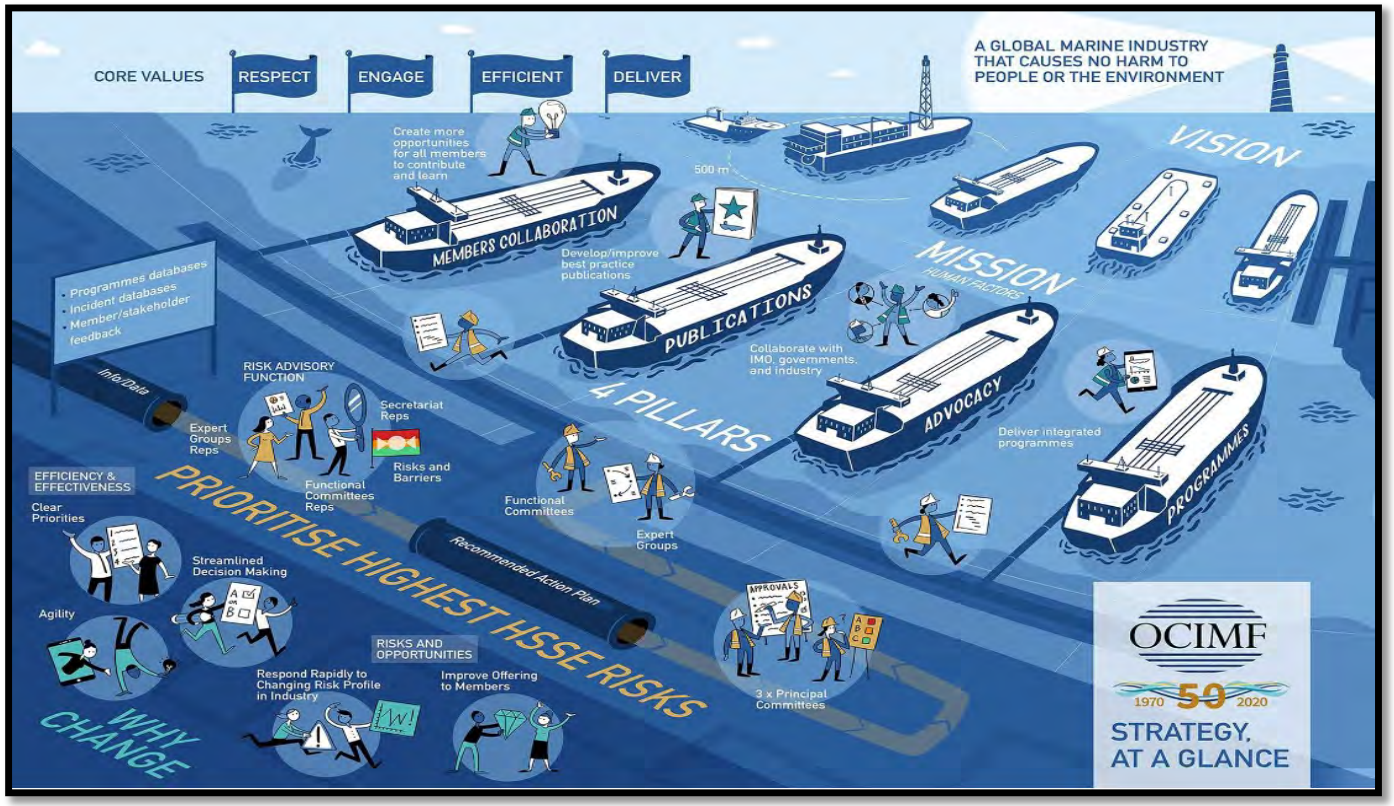
[1] *This relates to spills with confirmed volumes*
[2] *Quantity rounded to nearest thousand*

Leading Industry with Safety over the last 50 years…



Our Purpose

A global marine industry that causes no harm to people or the environment



Strategic Priorities

Publications

...velop best practices on critical areas of safety, health, security and environment.

Advocacy

Promote best practices and regulatory compliance through engagement with governments and industry.

Programmes

Develop inspection and self-assessment programmes for promoting best practices and regulatory compliance.

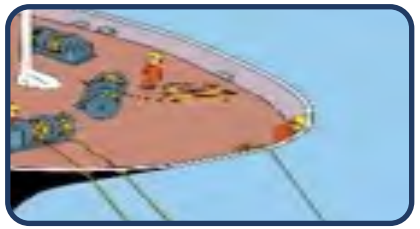
Members collaboration

Provide a forum for members to learn, share expertise and develop best practices.

OCIMF Overview

Committee/Expert Group structure

Key Operational pillars – P&A & Programmes



Publications

Best practices & publications - promote best practices and regulatory compliance

Technical content for SIRE, BIRE & OVID

Risk & SIRE incident reviews & HSSE

Advocacy

Collaborate with governments, industry partners and stakeholders

Promote global and consistent implementation

Maintain OCIMF's reputation as the single source of truth

HSSE Risk Prioritisation

To ensure we focus on highest risks

Identify leading indicators through trends, member inputs, industry engagement

Human factors is key

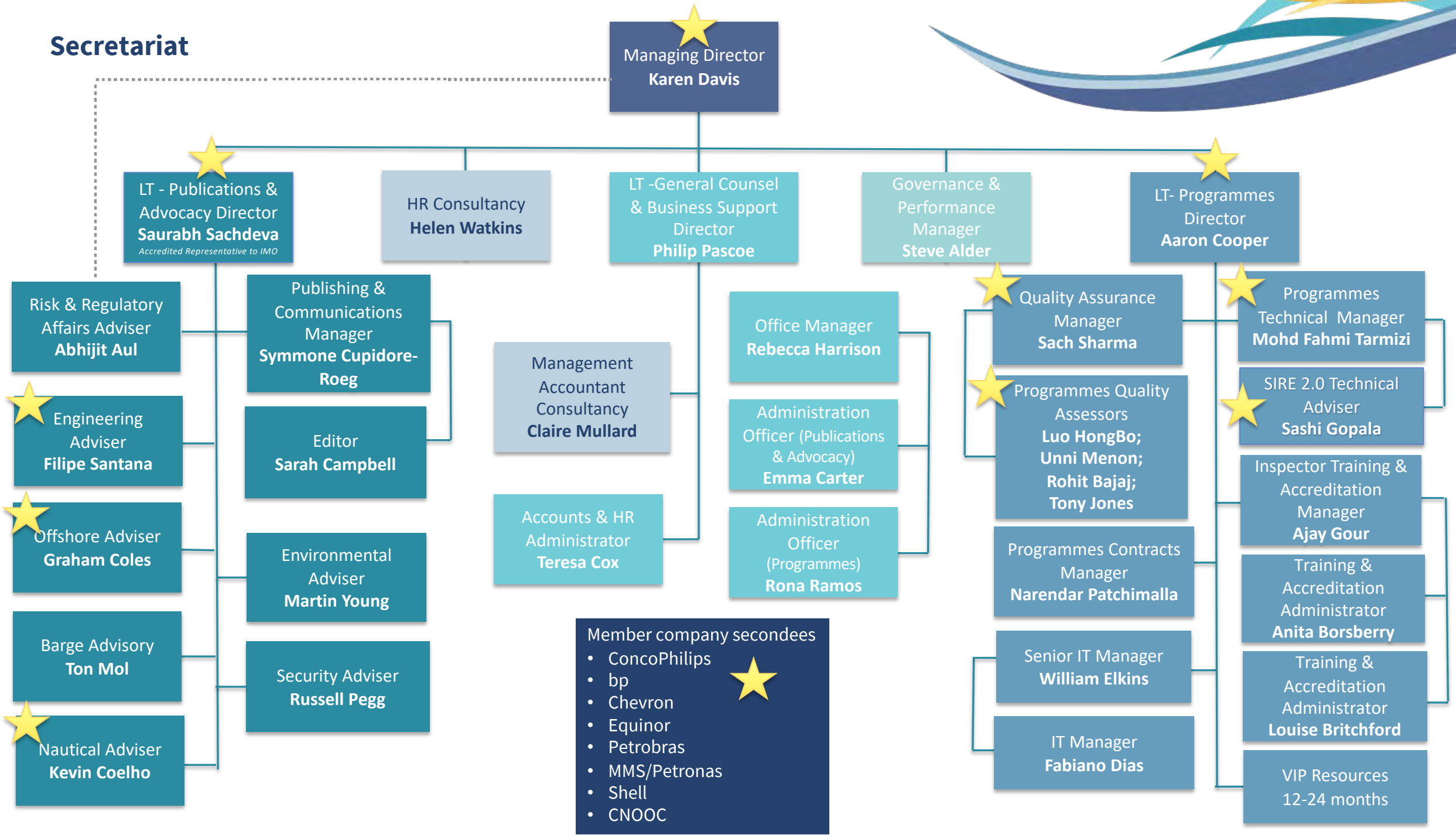
Programmes

To ensure we implement our technical contents, standards and inspections

Manage implementation of SIRE 2.0, BIRE, OVID, MTIS and associated questionnaires

Deliver Inspector training, standards of assessments and MSA's – TMSA, OVMSA & MTMSA

Secretariat



OCIMF IN NUMBERS

53 YEARS OF OCIMF 1970 – 2023

3 PRINCIPAL COMMITTEES

15 FUNCTIONAL COMMITTEES AND EXPERT GROUPS

25,453 FOLLOWERS ON LinkedIn

3,057 NEWSLETTER SUBSCRIBERS

109 MEMBERS IN **45** COUNTRIES

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ARGENTINA
AUSTRALIA
AUSTRIA
BRAZIL
CANADA
CHILE
CHINA
COLOMBIA
EQUADOR
FINLAND
FRANCE
GERMANY
GREECE
INDIA
INDONESIA
ITALY
JAPAN
KAZAKHSTAN
KUWAIT
MALAYSIA
MEXICO
MOROCCO
NETHERLANDS
NIGERIA
NORWAY
PERU
PHILIPPINES
PORTUGAL
QATAR
RUSSIA
SAUDI ARABIA
SINGAPORE
SOUTH AFRICA
SPAIN
SWEDEN
SWITZERLAND
THAILAND

SHIPS INSPECTED
9,447
REPORTS UPLOADED 22,766
REPORTS DOWNLOADED 167,814

BARGES INSPECTED
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REPORTS UPLOADED 9,335
REPORTS DOWNLOADED 40,025

OFFSHORE VESSELS INSPECTED
2,911
REPORTS UPLOADED 3,042
REPORTS DOWNLOADED 2,140

358 OVID INSPECTORS **496** SIRE SHIP INSPECTORS (CAT 1) **134** SIRE BARGE INSPECTORS (CAT 3)

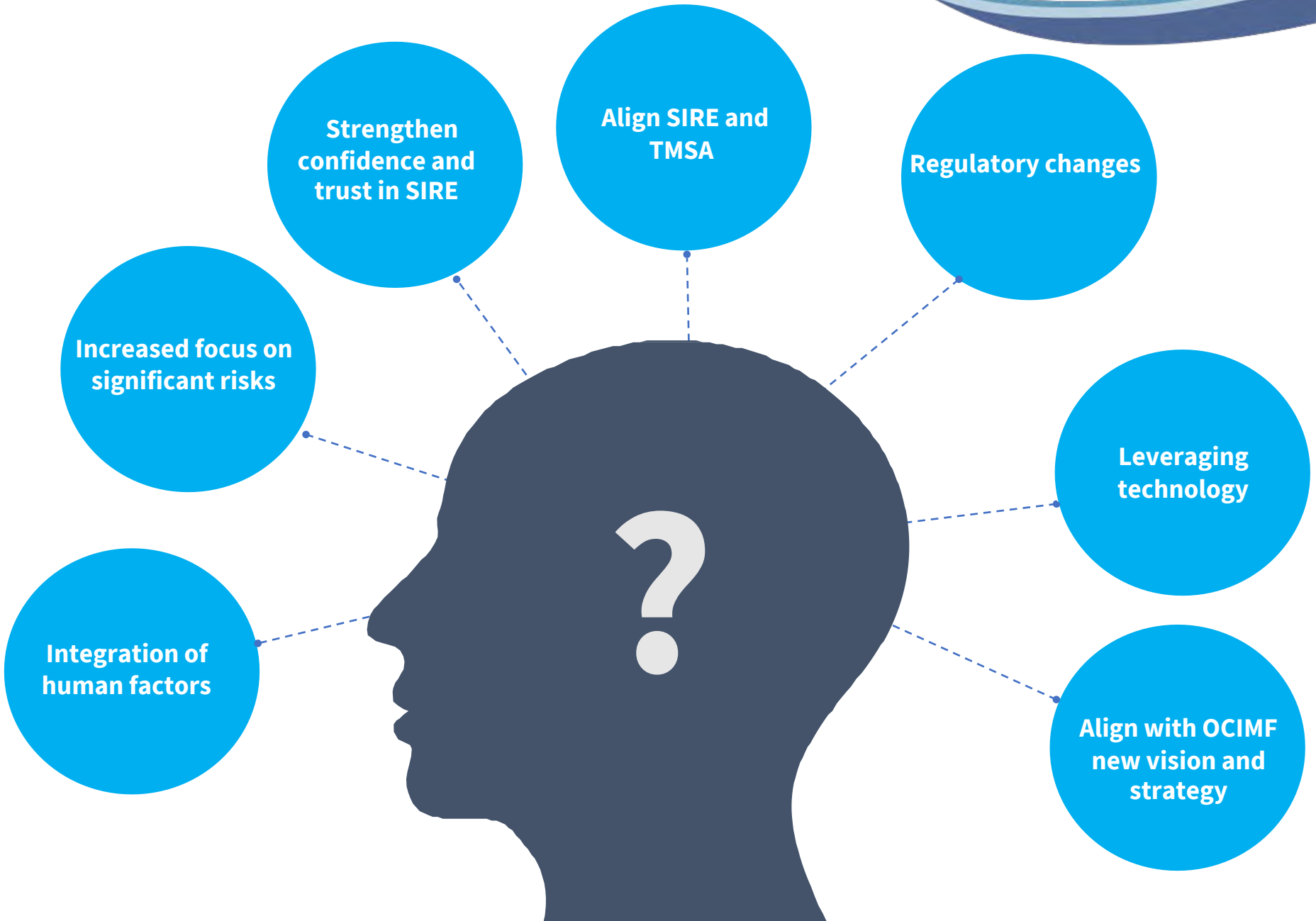
OVID STATISTICS

	TOTAL
TOTAL VESSELS REGISTERED AT END 2022	6,517
VESSELS REGISTERED IN 2022	462
NUMBER OF INSPECTIONS	3,042
NUMBER OF VESSELS INSPECTED	2,911
INSPECTIONS PURCHASED - DISTINCT INSPECTIONS	1,508
INSPECTIONS PURCHASED - TOTAL PURCHASES	2,140
TOTAL OPERATORS REGISTERED END OF 2022	1,306
NUMBER OF OPERATORS REGISTERED IN OVID	88

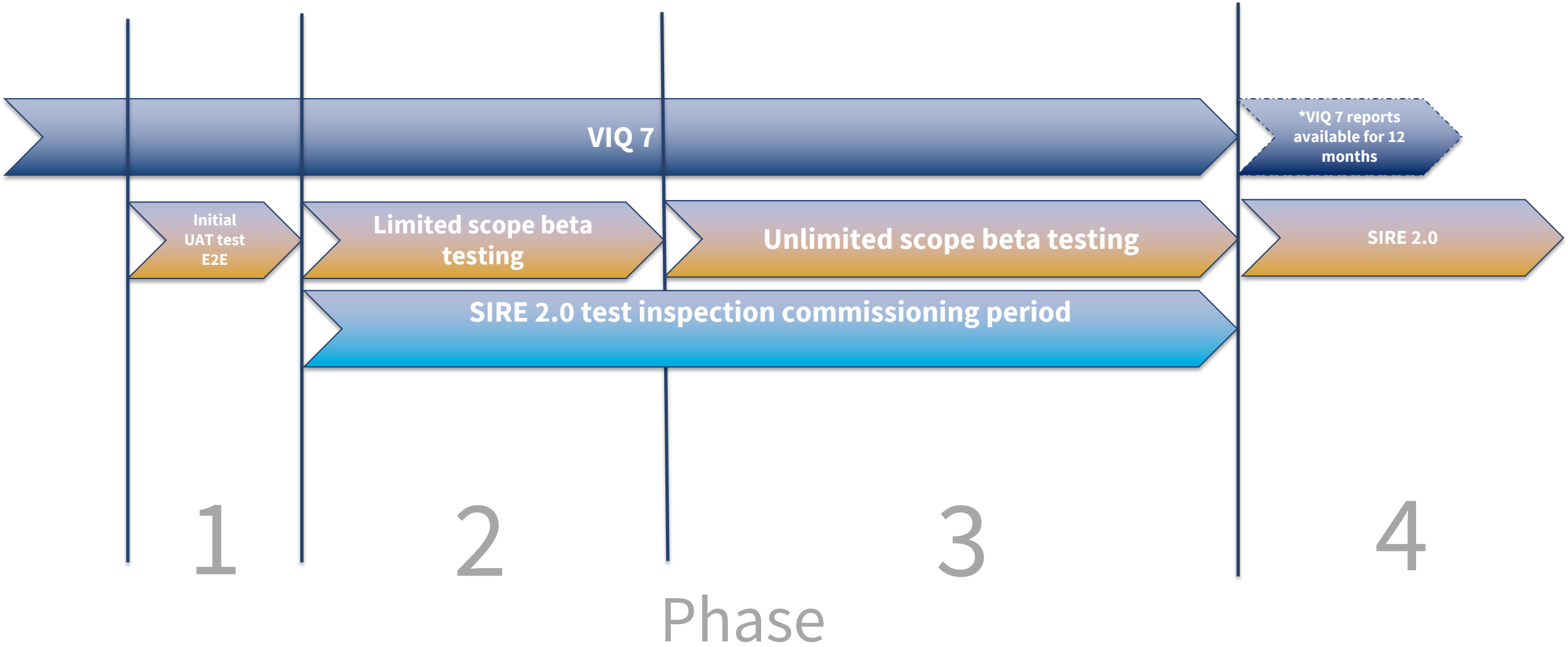
SIRE STATISTICS

	SHIPS CAT 1	BARGES CAT 3	TOTAL
TOTAL VESSELS REGISTERED AT END 2022	4,160	4,420	8,580
VESSELS REGISTERED IN 2022	505	416	921
NUMBER OF INSPECTIONS	22,766	9,335	32,101
NUMBER OF VESSELS INSPECTED	9,447	7,782	17,229
INSPECTIONS PURCHASED - DISTINCT INSPECTIONS	31,083	12,545	43,628
INSPECTIONS PURCHASED - TOTAL PURCHASE	167,814	40,025	207,839
TOTAL OPERATORS REGISTERED END OF 2022			2,277
NUMBER OF OPERATORS			254

Update on SIRE 2.0



Transition Timelines



Managing key HSSE risks with a human factored approach

Leaders help shape the conditions that influence what people do and people will make mistakes.

3 x Principal Committee

4 x Functional Committees

11 x Expert Groups

Supported by x 112 members

Human Factors	Environment	Security	Safety	Legal
Tankers	Terminals	Barging	Offshore	Programmes
• Nautical	• Ship to Shore	• Engineering	• Offshore marine	• IT
• Ship to Ship	• Structures	• Inspection processes	• Floating systems	• Programmes governance

Library of 30 x Books

Library of 50 x information papers

Inspector training & accreditation

1 x Major project underway – SIRE 2.0

3 new x information papers and x 1 book and x 3 translations – in progress

Updating Vessel Inspection Questionnaires

2 x Major projects underway
- Global Barge Guide
- Ship to Ship Transfer

2023: Released 3 x pubs

Continually engaged in developing leading practices to drive and improve industry performance

Overview of work with best practices

Publications & Advocacy

IMO Engagement

Programmes

Nautical EG

- Revise Anchoring Systems guide
- ***Support*** *Ship to Ship Transfer rewrite –* ***STS EG****
- *D&A Paper –* ***nearly completed***

Engineering EG

- Review Guide for Implementation of Sulphur Oxide Exhaust Gas Cleaning
- IMO Alternative Fuels WG – support **EFC**
- Fire Prevention on Engine Rooms work stream
- Industry's incidents review

Floating Systems EG

- **New IP** on Offshore Lifeboat and LSA Operations
- **FPSO Asset Integrity**
- Publications review

Offshore Vessel EG

- DP Assurance
- Management of attending Offshore vessels in the Safety Zone.
- Development of regulatory standards for MASS Vessels
- Updating OVIQ

Barges EG

- **ISGINTT2** – Delivered
- **Major Project** – New Flagship Publication – Global Barges Guide
- IP on SMART Shipping in EU
- IP on open loading – SCA

Ship to Shore EG

- Advocate MTIS within regions – ongoing*
- **Review** MTMSA

Structures EG

- ***Support*** Onshore Power Supply WG –**EFC**
- ***Support*** Emissions Control Tech. WG – **EFC**
- ***Support*** FSEG in development of Mooring Hawser guidelines - **FSEG**
- ***IMO WG*** on the Reduction of VOCs
- Industry's incidents review
- ***8 x Publications*** with PIANC

Ship to Ship EG

- **Major Project** – Revise STS Transfer Guide

Environmental FC

- **New** IP on Onshore Power Supply Guide – ongoing
- **New** IP on Risks Associated with Engine Power Limitation Guide - ongoing
- **New** Emissions Capture and Control Guide - ongoing
- IMO CG on LCA of marine fuels
- IMO WG on the Reduction of VOCs
- Map of external organisations

Human Factors FC

- **IMO** - Safe Workplace, Culture, Bullying and Harassment
- **Publications**: HF Checklist, Approach Paper & MSA revision
- **WMU MoU** - SafeMode – Toolkit and Advocacy
- **Accident** and Incident Investigations methodology –
- **HEIG** – Enclosed Space Entry *monitoring

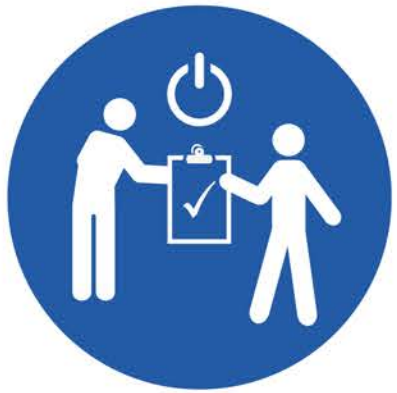
Maritime Security FC

- Maritime Industry Security Threat Assessments
- Cyber Security Publication (ITEG-Programmes)
- **Forthcoming** BMP review
- **New** Drone study

Member collaboration

IOGP Life Saving Rules

If we do this together, as an industry, we can have a global impact on safety



Bypassing Safety Controls

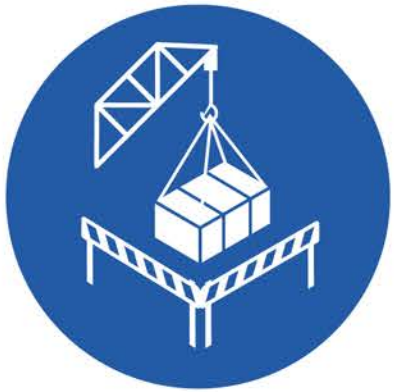
Confined Space

Driving

Energy Isolation

Hot Work

Line of Fire



Safe Mechanical Lifting

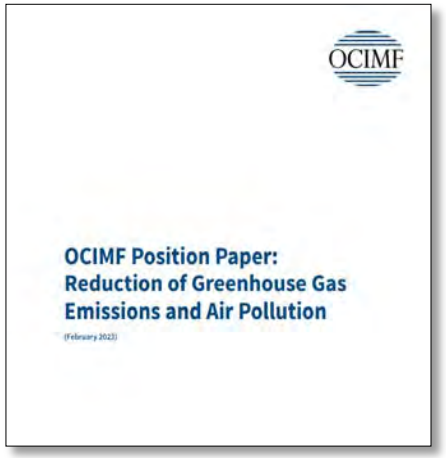
Work Authorisation

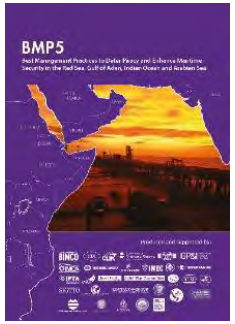
Working at Height

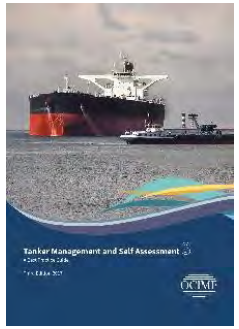
By having a common set of Life-Saving Rules, individuals would see the same rules at every site, making it simpler, clearer, easier to follow and remember. And more efficient for all organisations.

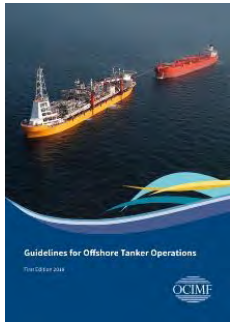
Publications & Advocacy

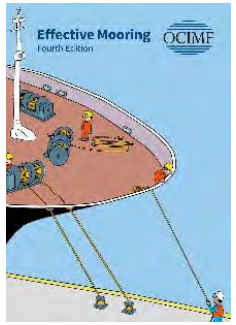
https://www.ocimf.org/publications/information-papers

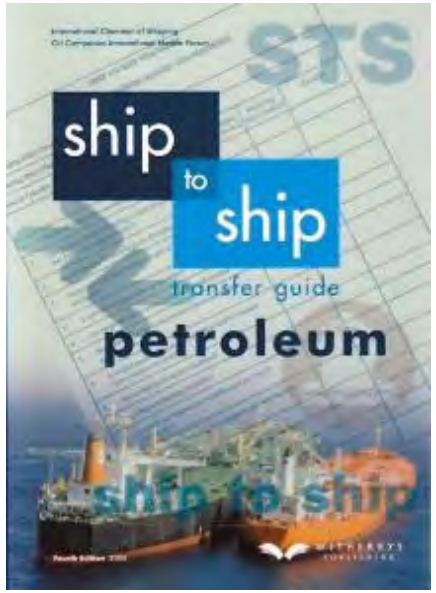


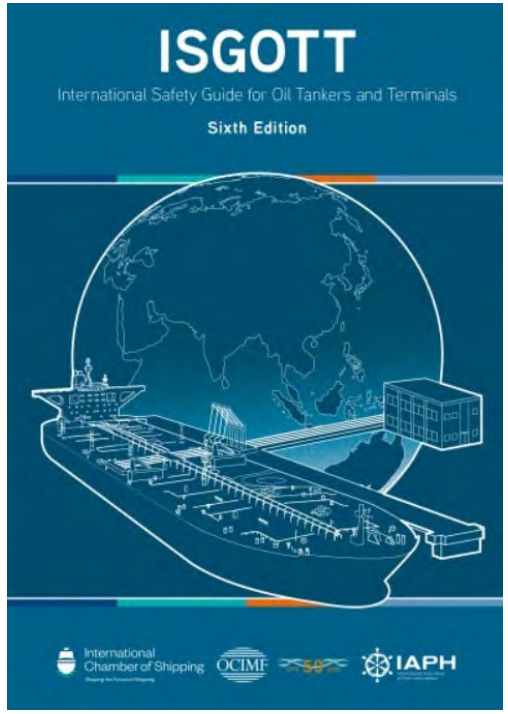












Barges

Ton Mol

Barge Adviser

OCIMF

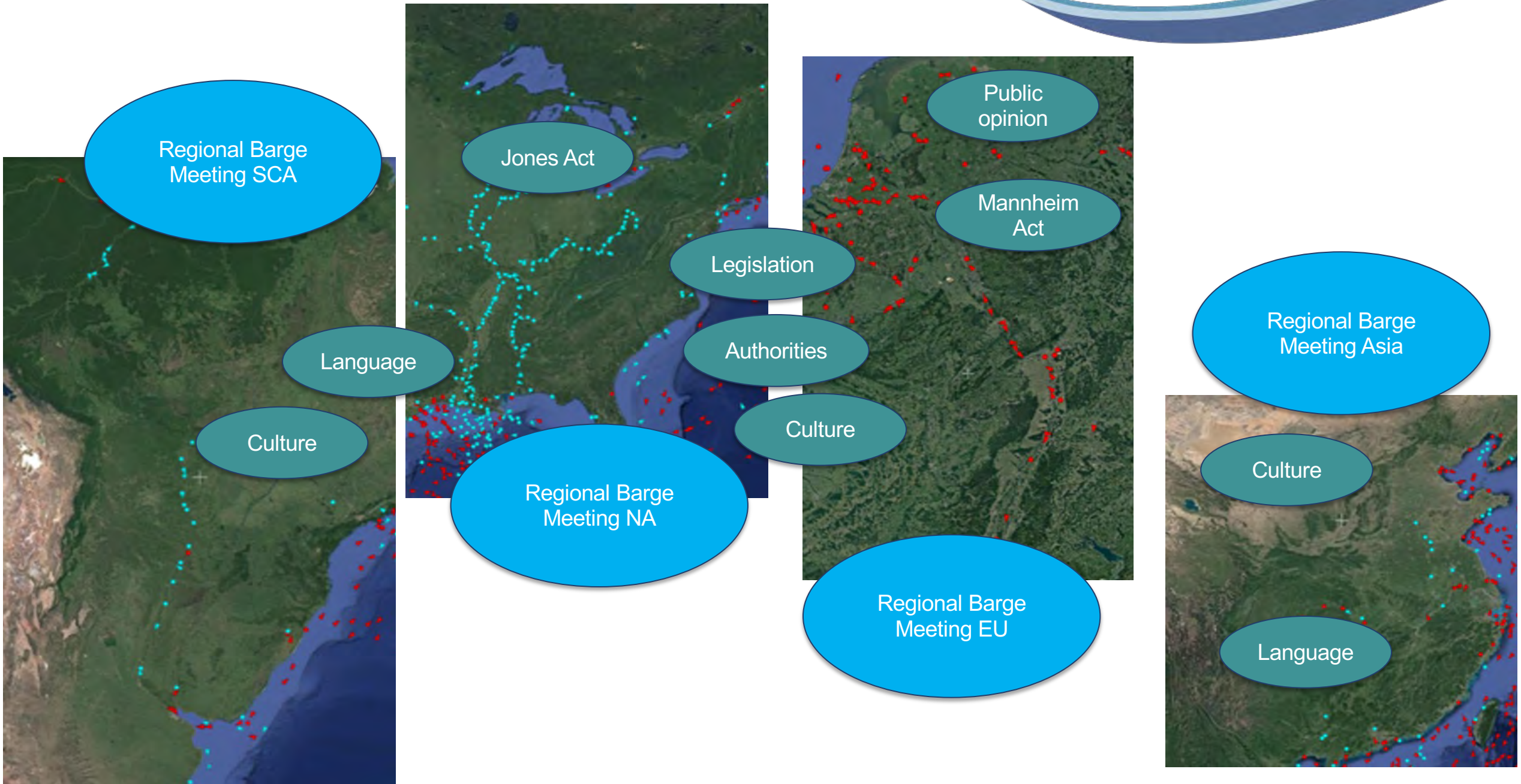
The world of a Barge Adviser

Rio de Janeiro OCIMF day 2023

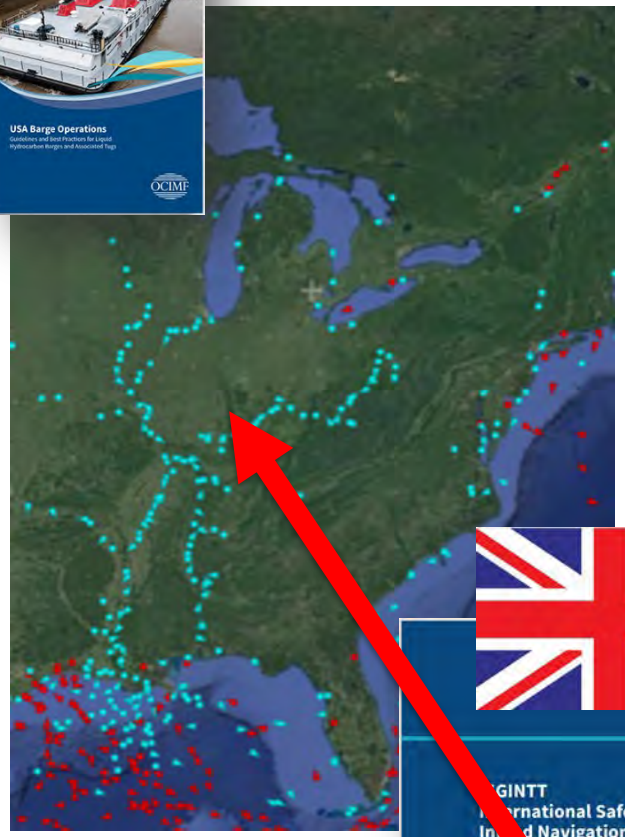
Ton Mol

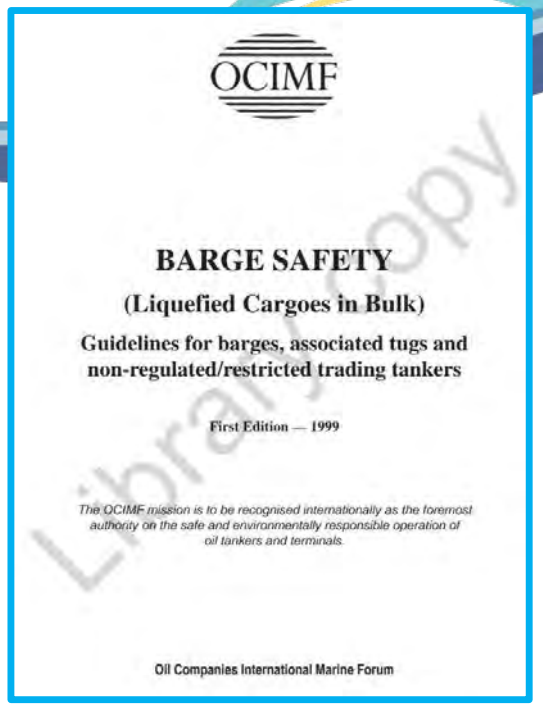
OCIMF

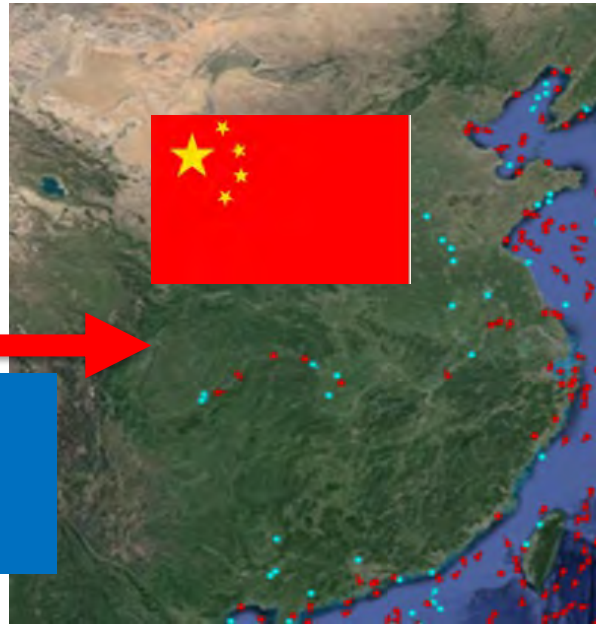
The world of the barges… and the barge adviser …



Publications 2023 Books







2024 start work on the Global Barge Guide for all regions

Publications 2023 Information Papers

1 – Recommendation for converting Inland Tank-Barges from Open to Closed Cargo Operations in the South and Central America region

OCIMF

Recommendation for converting Inland Tank-Barges from Open to Closed Cargo Operations in the South and Central America region

(first edition October 2023)

Vision: A global marine industry that causes no harm to people or the environment.

Mission: To lead the global marine industry in the promotion of safe and environmentally responsible transportation of crude oil, oil products, petrochemicals, and gas, and to drive the same values in the management of related offshore marine operations. We do this by developing best practices in the design, construction and safe operation of tankers, barges and offshore vessels and their interfaces with terminals and considering human factors in everything we do.

1 – Recommendation for converting Inland Tank-Barges from Open to Closed Cargo Operations in the South and Central America region

OCIMF

Recommendation for Implementation and the safe use of Smart Shipping Technology on board of Inland Tank-Barges

(first edition 2024)

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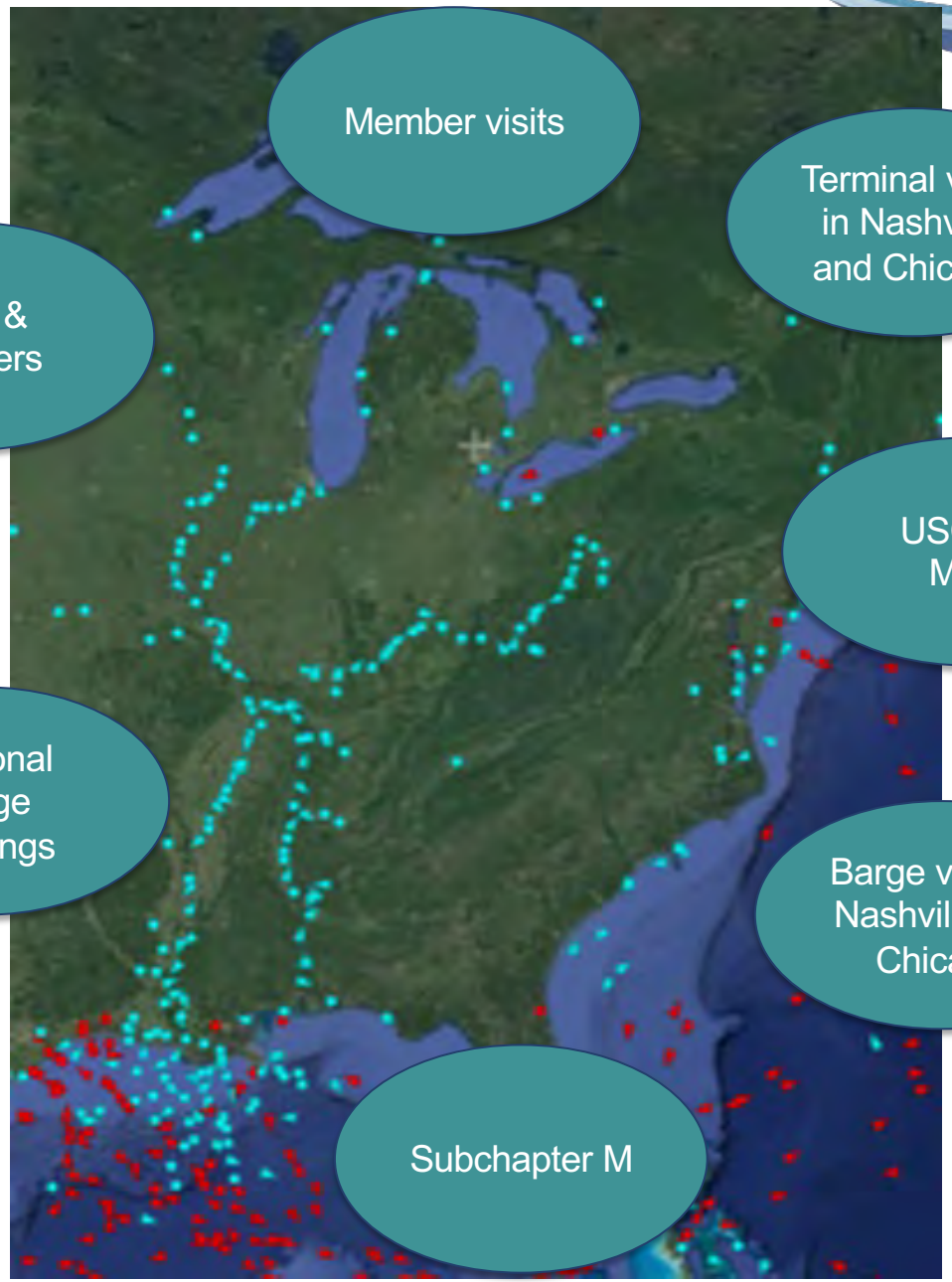
Advocacy & Engagement North American Barging Industry



Member visits

Terminal visits in Nashville and Chicago

AWO & Members

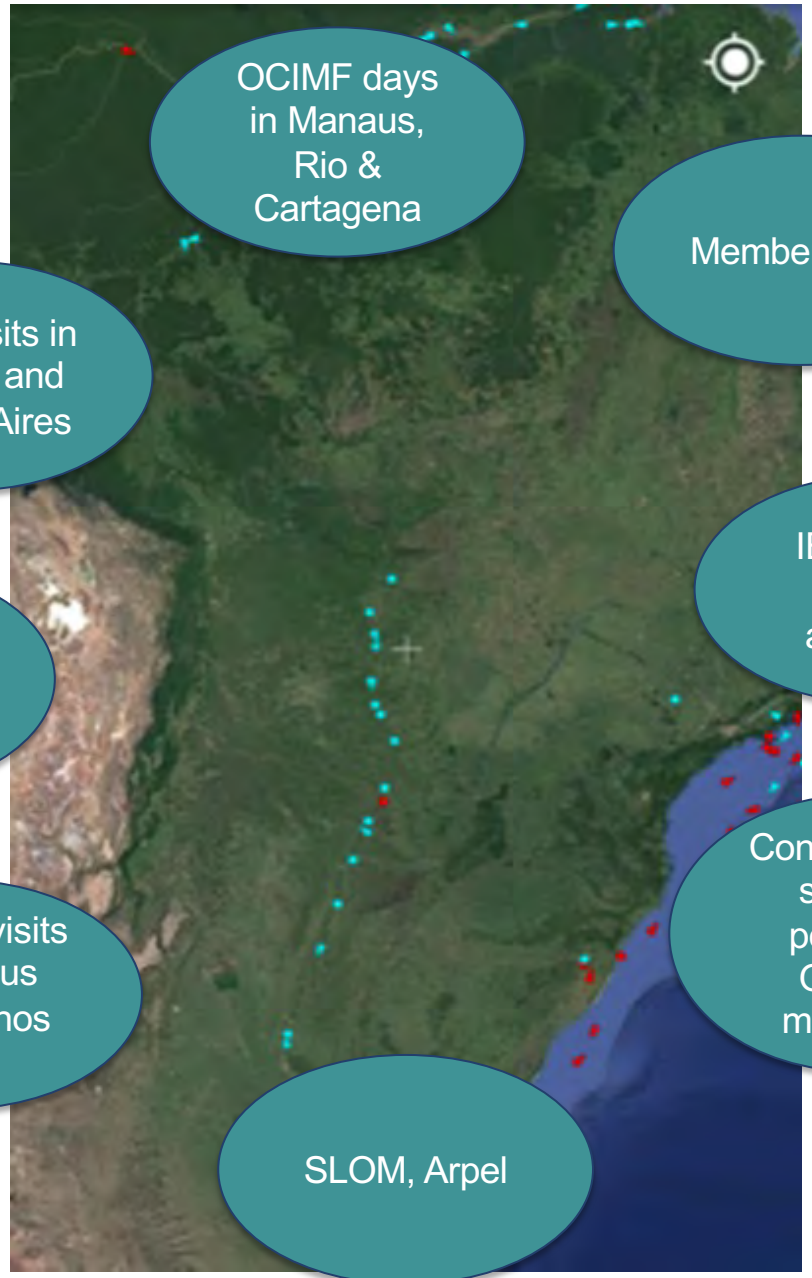
USCG & MCA

Regional Barge Meetings

Barge visits in Nashville and Chicago

Subchapter M

Advocacy & Engagement South & Central American Barging Industry



OCIMF days in Manaus, Rio & Cartagena

Member visits

Barge visits in Manaus and Buenos Aires

IBP, Abani, Port authirities

Operator forum in BA

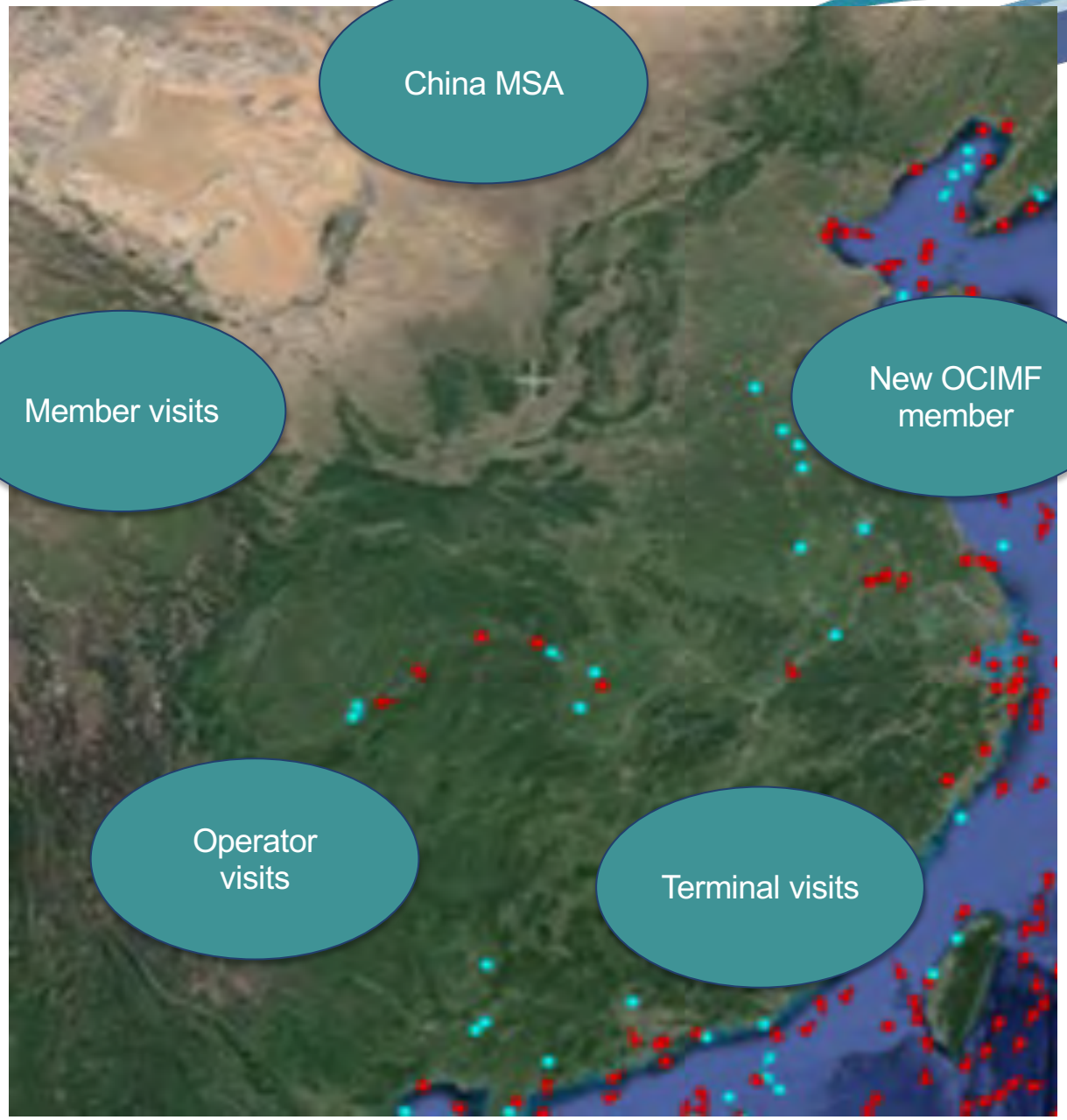
Contacts with several potential OCIMF members

Terminal visits in Manaus and Buenos Aires

SLOM, Arpel

Advocacy (South East) Asia Barging Industry

India Maritime Vision 2030



China MSA

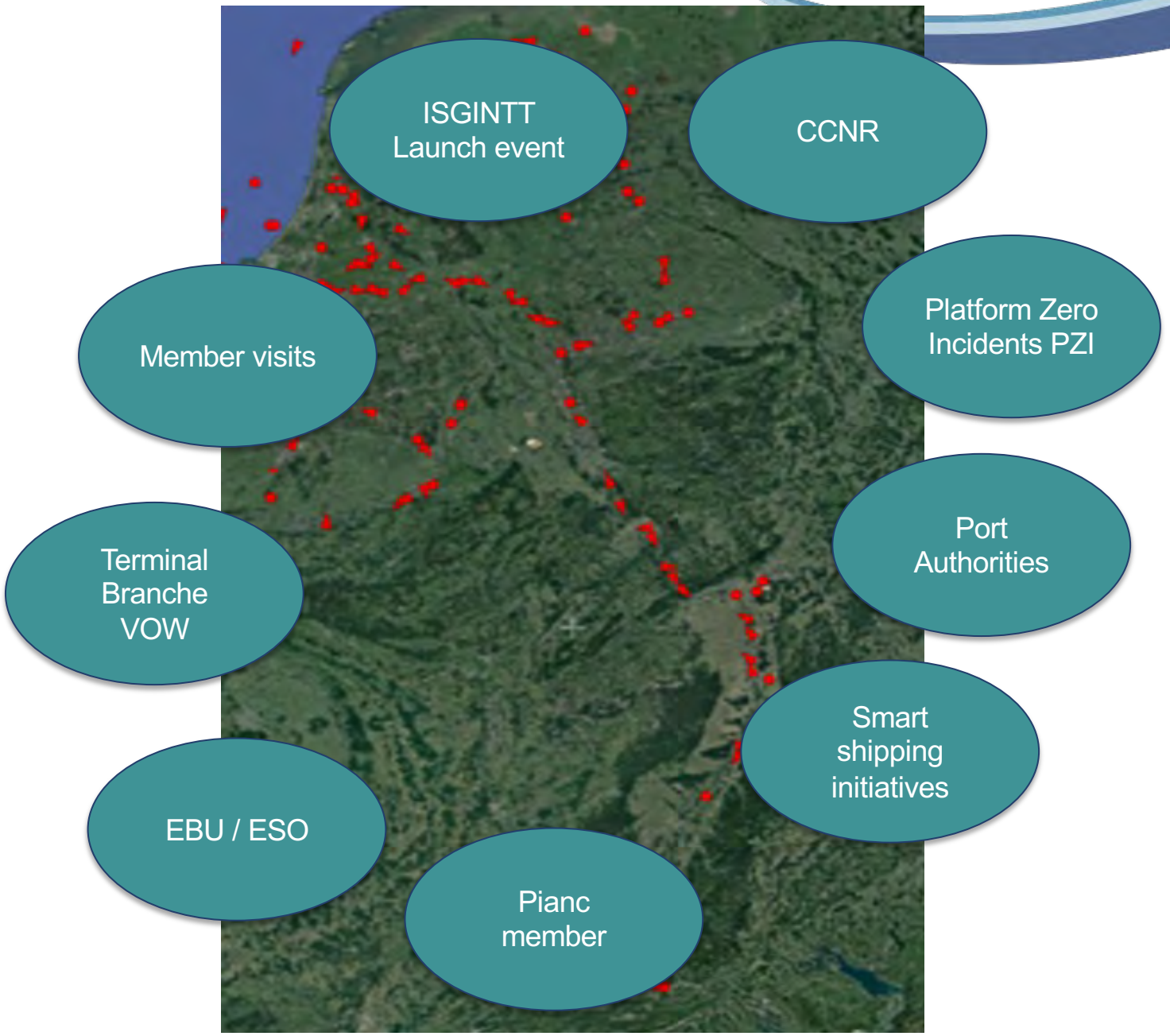
Member visits

New OCIMF member

Operator visits

Terminal visits

Advocacy & Engament European Barging Industry



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09
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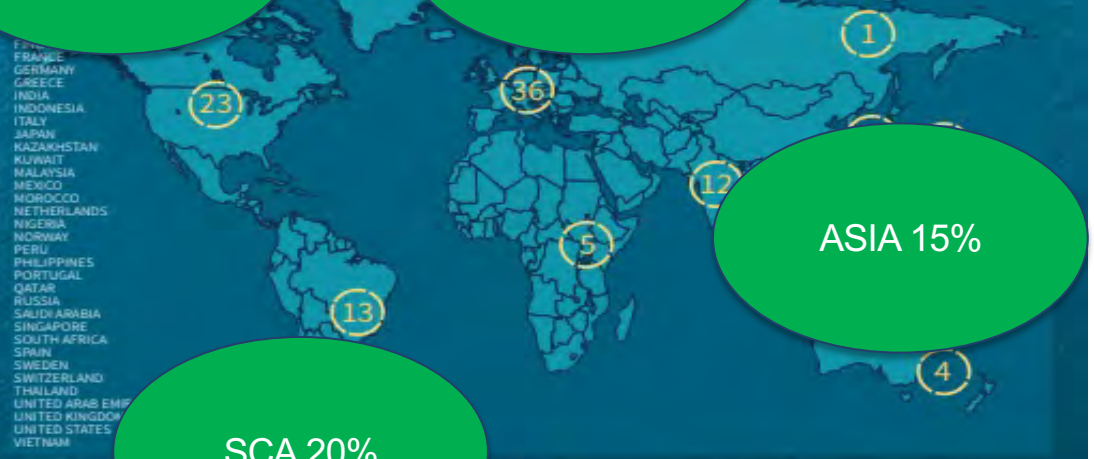

NA 80%

EU 95%

ASIA 15%

SCA 20%

INFORMATION PAPERS

32
BOOKS

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NUMBER OF VESSELS INSPECTED	9,447	7,782	17,229
INSPECTIONS PURCHASED - DISTINCT INSPECTIONS	31,083	12,545	43,628
INSPECTIONS PURCHASED - TOTAL PURCHASE	167,814	40,025	207,839
TOTAL OPERATORS REGISTERED END OF 2022			2,277
NUMBER OF OPERATORS REGISTERED IN SIRE			254
TOTAL TMSAS PUBLISHED AT END 2022			1,237
TMSAS PUBLISHED IN 2022			1,346

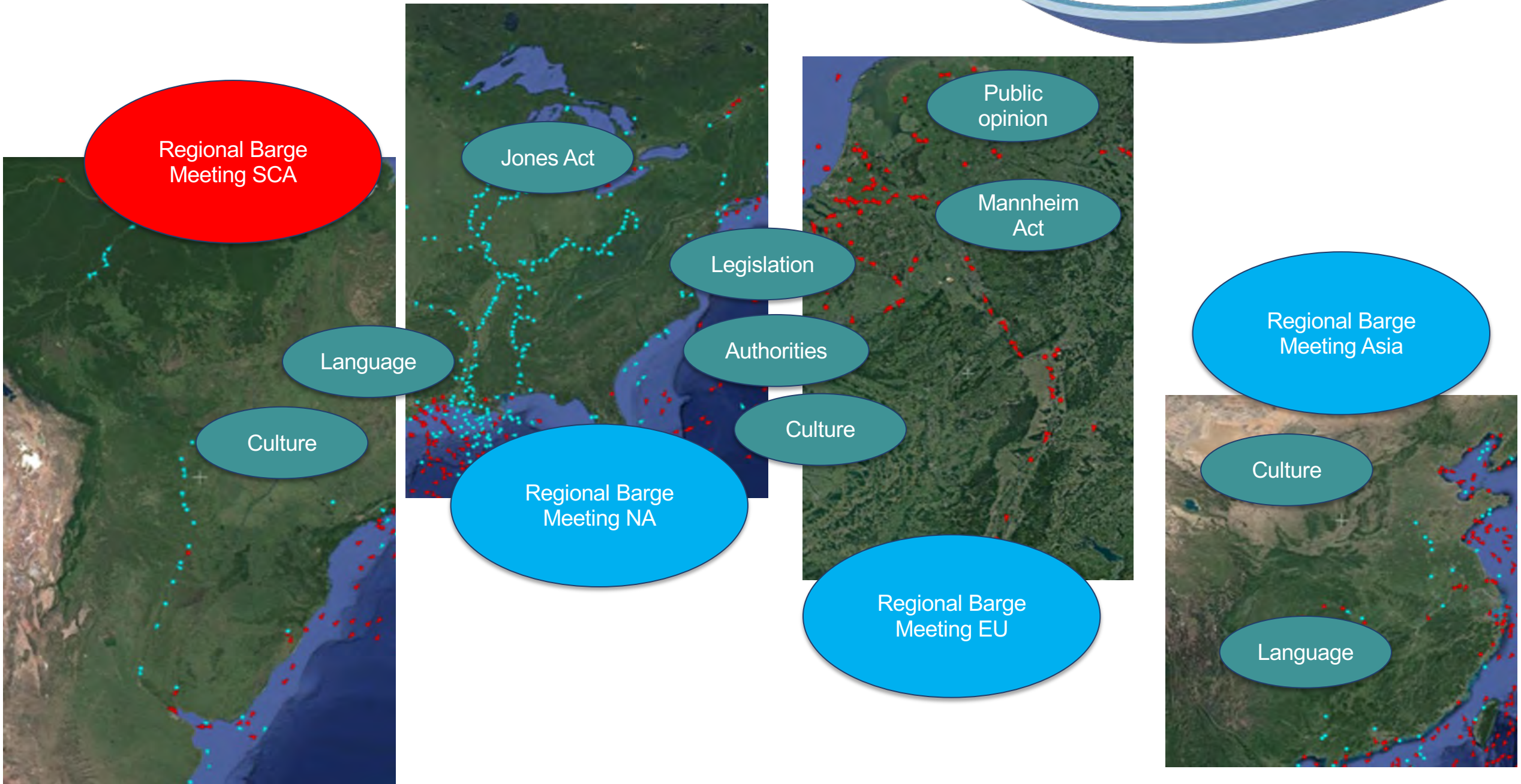
141 MTIS BERTHS REGISTERED

23 MTIS TERMINALS REGISTERED

Rest of the world

- Africa
- South-East Asia (Indonesia, Vietnam/Cambodia)
- Japan
- Australia

The world of the barges… and the barge adviser …



Team Regional Barge Meeting South & Central America's

- Meetings 4 times a year
- Cartagena, Buenos Aires, Manaus , Rio
- Planning is Lima & Asuncion
- 8 – 15 members
- OCIMF day & Operator Forums

Team Regional Barge Meeting South & Central America's

- Completed Risk Workshop
- Organised operator forums
- Completed Information paper Closed Cargo Operations
- Start working on new BIQ and BPQ for SCA
- Review translations for ISGINTT
- Provide locations for meeting
- Organised Barge & Terminal visits

2022 2023

AWO meeting
Plan agreed for updating BIQ's
China visit
ISGINTT 2
Start on China BIQ
New BIQ & BPQ EU
EU barge community meeting
Insepctor trainings EU
Integration EBIS cmpleted
Barging in newsletters
4 risk workshops
Audited inspections
Engagement weeks in SCA
Acceptance for regional approach
India
Global barge guide acceptance
Barging withn OCIMF
Translations

Regional Engagement

raizen

Environment and Offshore

Filipe Santana

Engineering Adviser

Environment

Engineering Adviser

Filipe Santana

Engineering Adviser

Filipe is a distinguished professional with extensive experience in the design, engineering, and operation of tankers, OSVs, and marine terminals. As the Environmental Functional Committee secretary, he orchestrates OCIMF's energy transition initiatives. He also manages the Structure and Engineering Expert Groups.

Before being seconded to OCIMF by Petrobras Transporte, Filipe excelled as a technical adviser, overseeing marine assurance processes, investigations, and major maintenance interventions for offshore terminals and support vessels.

An accomplished academic, Filipe graduated top of his class in Naval Architecture, Marine and Ocean Engineering at UFRJ, earning an MSc in Ocean Engineering and prestigious awards for his research. He is also an MIT-trained Data Scientist.

Internationally, Filipe has served as OCIMF's South and Central America Regional Champion and Inter-institutional Relations Director for SLOM. His involvement in numerous OCIMF working groups led to significant contributions to the review of ISGOTT and the publication of GOTO guidelines.

Vision

A global marine industry that causes no harm to people or the environment

OCIMF

Organisational Structure

Environmental Committee

INTERNATIONAL
MARITIME
ORGANIZATION

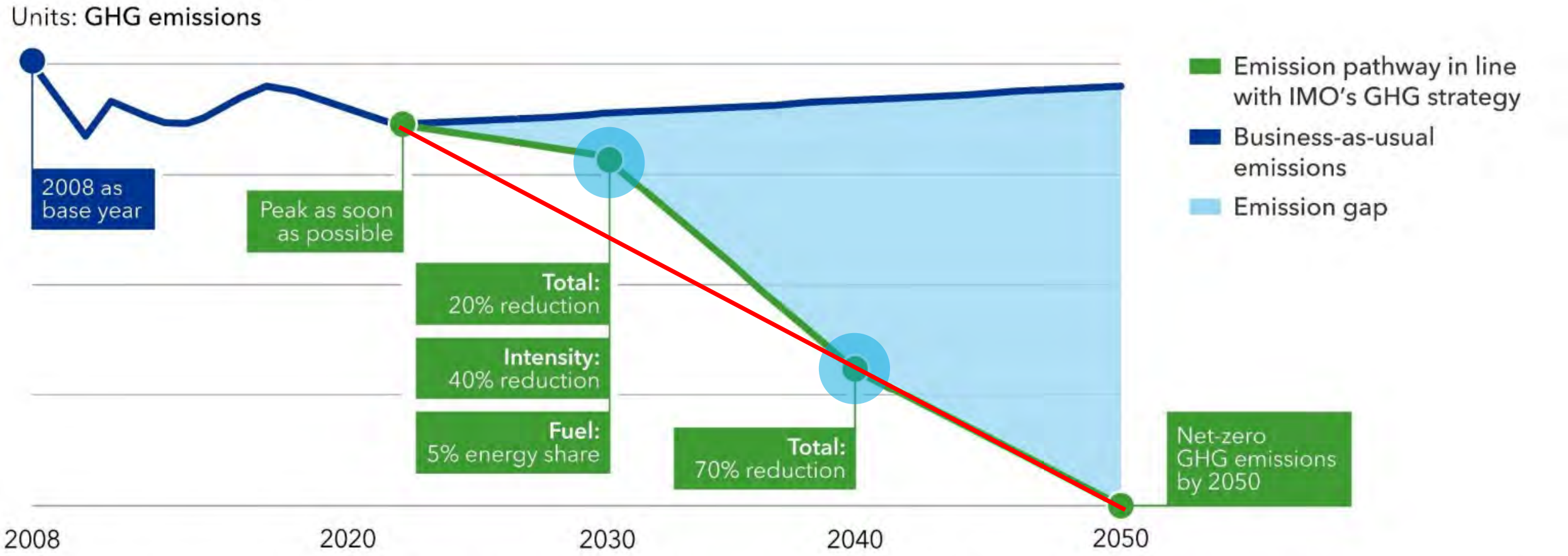
CHAIR
SECRETARY
DIRECTOR
MARINE ENVIRONMENT
DIVISION

BRAZIL
BULGARIA

IMO's strategy for the reduction of GHG emissions

Elements	2018		2023
Peak Ambition	ASAP	=	ASAP
2050 Ambition	50% Total Annual GHG Emission Reduction	<	Net Zero (around / close to) *"…taking into account different national circumstances…"*
Phase Out	ASAP in this Century	<	Consistent with the long-term goal set out in Article 2 of the Paris Agreement*
2030 CI Ambition	40% CI Reduction by 2030 (CO2 Emissions per Transport Work)	=	40% CI Reduction by 2030 (CO2 Emissions per Transport Work)
CI / EE Ambition	Further phases for EEDI for new ships	<	Strengthening the energy efficiency design requirements for ships (unspecified)
Uptake	-	NEW	Uptake of Zero or Near-Zero GHG Emission Tech, Fuels, Energy Sources, at least 5% (striving for 10%) by 2030
2030 Checkpoint	-	NEW	20% Total Annual GHG Emission Reduction (striving for 30%)
2040 Checkpoint	-	NEW	70% Total Annual GHG Emission Reduction (striving for 80%)
New Terms	-	NEW	~~Offsetting~~, Just & Equitable Transition, Safety, Human Element

GHG emissions reduction pathway



Total: Well-to-wake GHG emissions; **Intensity:** CO_2 emitted per transport work; **Fuel:** Uptake of zero or near-zero GHG technologies, fuels and/or energy sources

©DNV 2023

Source: DNV

Short-term measures

IMO

Design based regulations

EEDI – Energy Efficiency **Design** Index.

EEXI – Energy Efficiency **Existing Ships** Index.

Operational Regulations

CII – Carbon Intensity Indicator

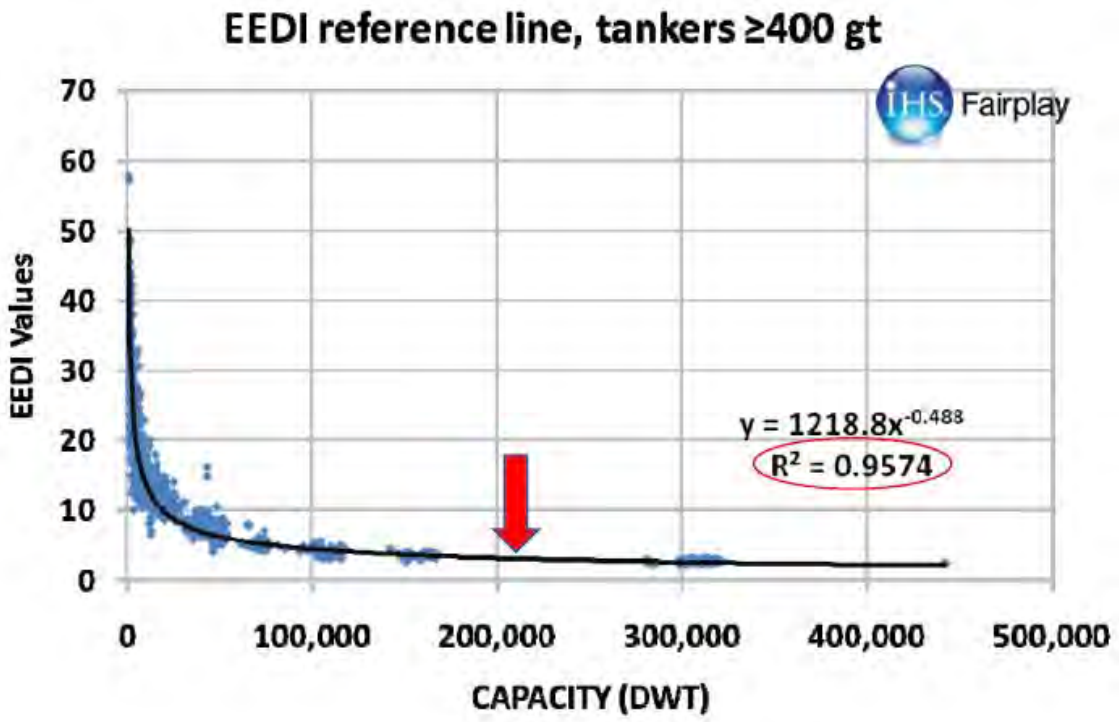
SEEMP – Ship Energy Efficiency Management Plan

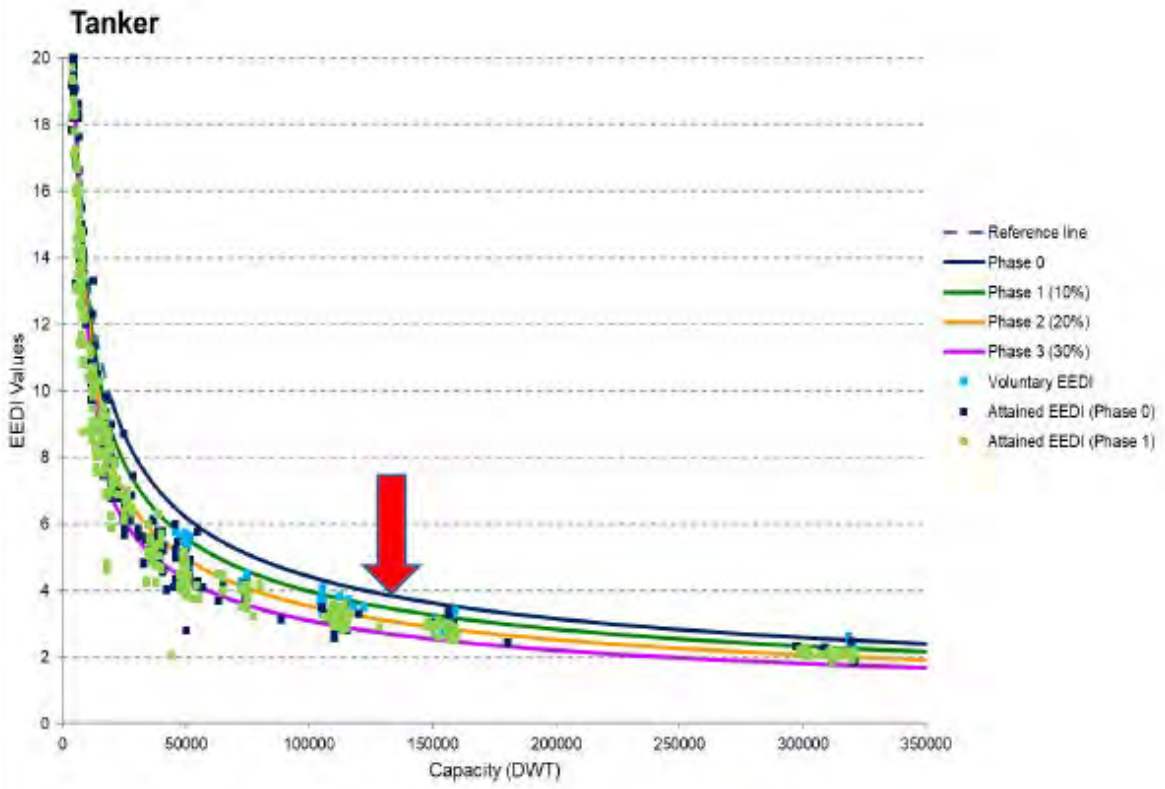
EEDI and EEXI Formula

Concept

$$EEDI\ or\ EEXI = \frac{\sum Power * Specific\ Fuel\ Consumption * CO2\ Conversion\ Factor}{Design\ Speed\ * Cargo\ Capacity}$$

EEDI Requirements



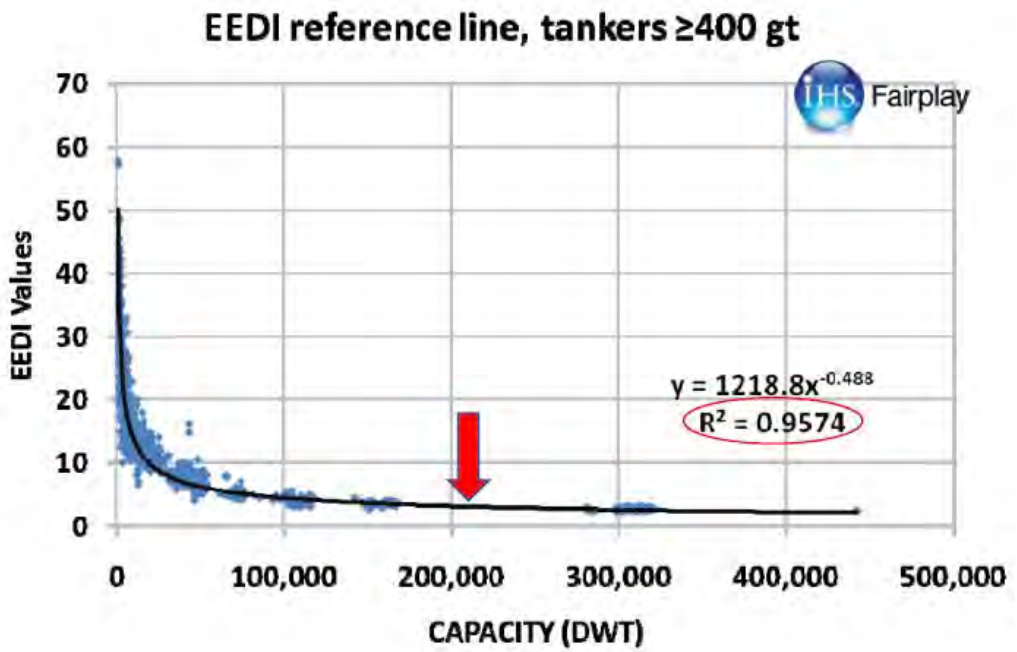


Phased reduction:
2015, **Phase 1**: **10%** ⬇️
2020, **Phase 2**: **20%** ⬇️
~~2025~~ 🆕 2023, **Phase 3**: **30%** ⬇️

EEXI Requirements

Ship Type	DWT (t)	Requirement*
Tanker	4,000 ≤ DWT < 200,000	-20%
Tanker	200,000 ≤ DWT	-15%
Gas carrier	15,000 ≤ DWT	-30%
Gas carrier	10,000 ≤ DWT	-20%
Gas carrier	2,000 ≤ DWT < 10,000	from 0 to -20%

*Reduction in relation to EEDI reference line.



The EEXI took effect from 01 January 2023.

Solutions Adopted to Comply with EEXI

Overridable Power Limitations:

The power limitation can be released, and a power reserve accessed.

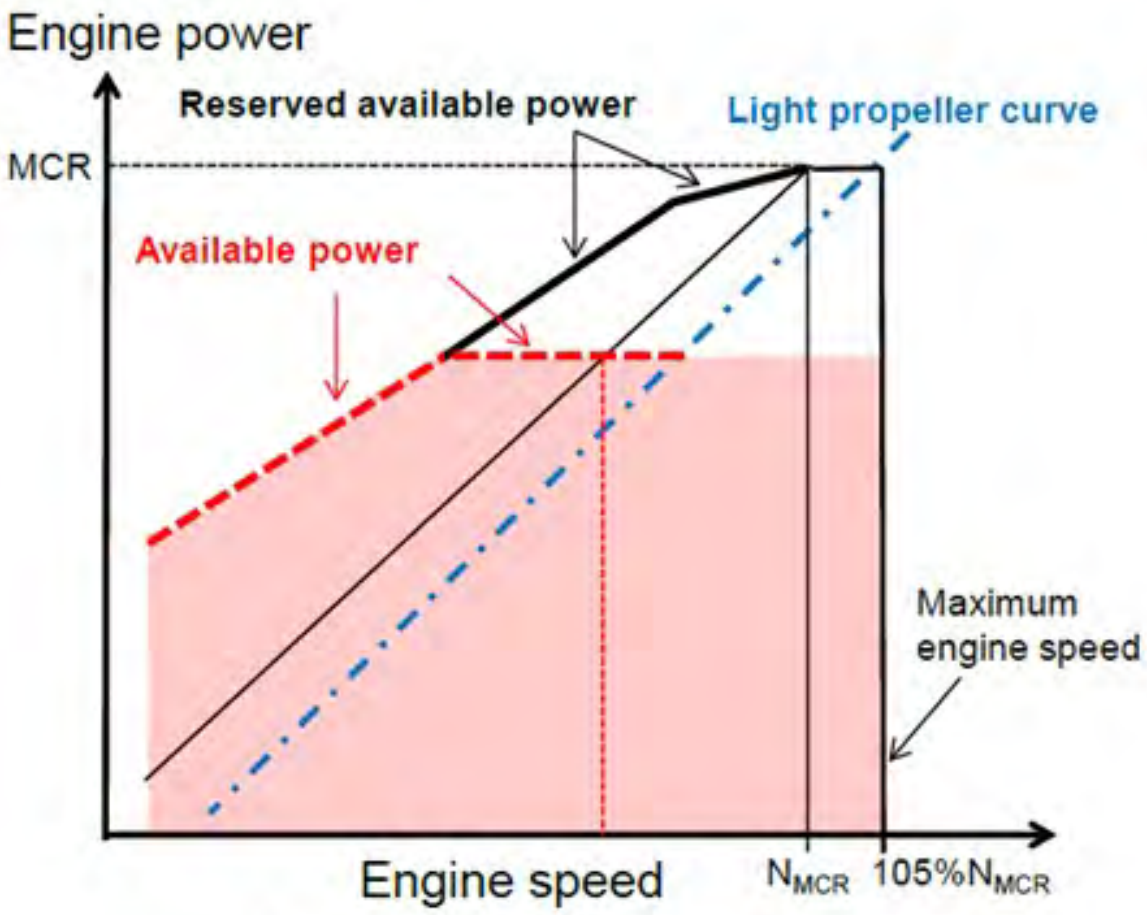
- Engine Power Limitations (EPL)
- Shaft Power Limitations (ShaPoLi)

Permanent (non-overridable) Power Limitations:

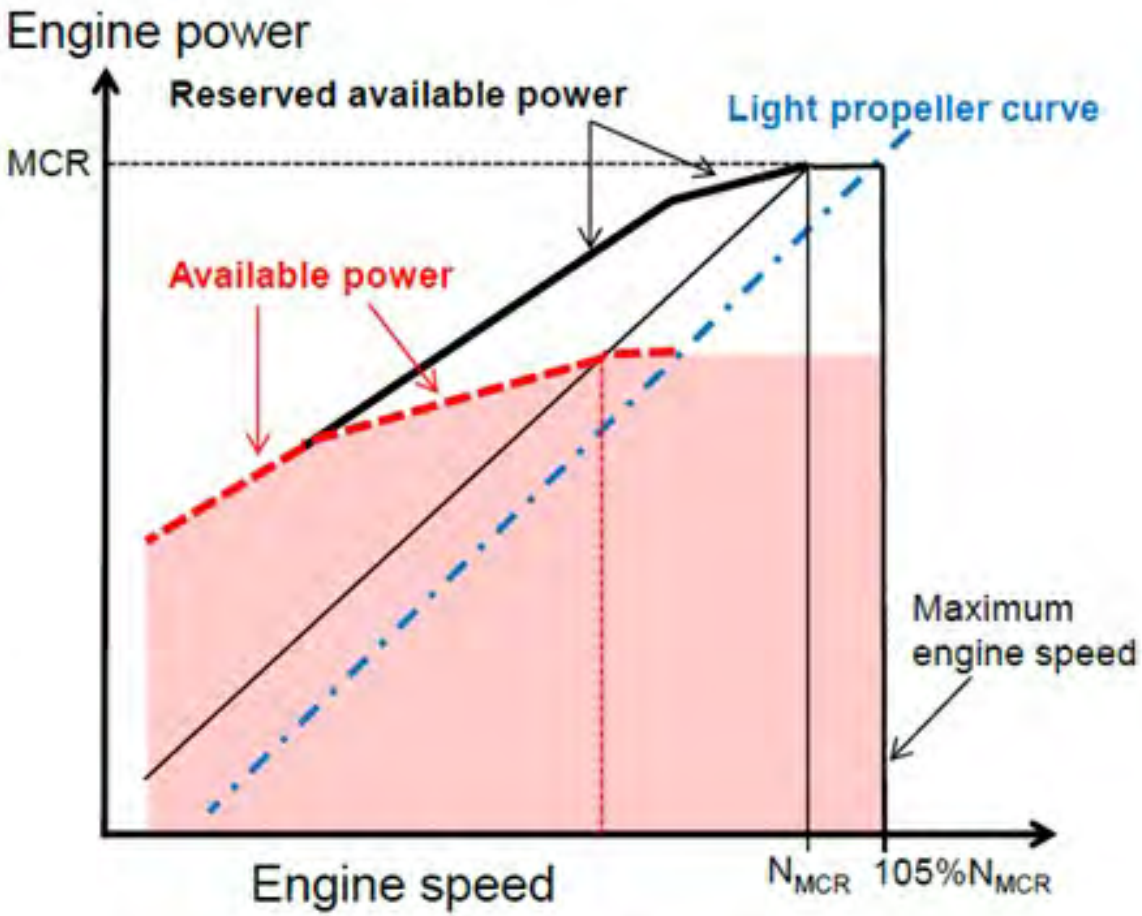
There is no access to a power reserve operationally

- Engine derating
- Turbocharger dismantling
- Permanent adjustment to the fuel index
- Propeller retrofits

Solutions Adopted to Comply with EEXI



ShaPoLi or electronic EPL



Mechanical EPL

Engine Power Limitation (EPL)

- **Mechanically Controlled Engines:** the engine's mechanical governor is limited by a stop screw sealed by wire.

a. OPL in place

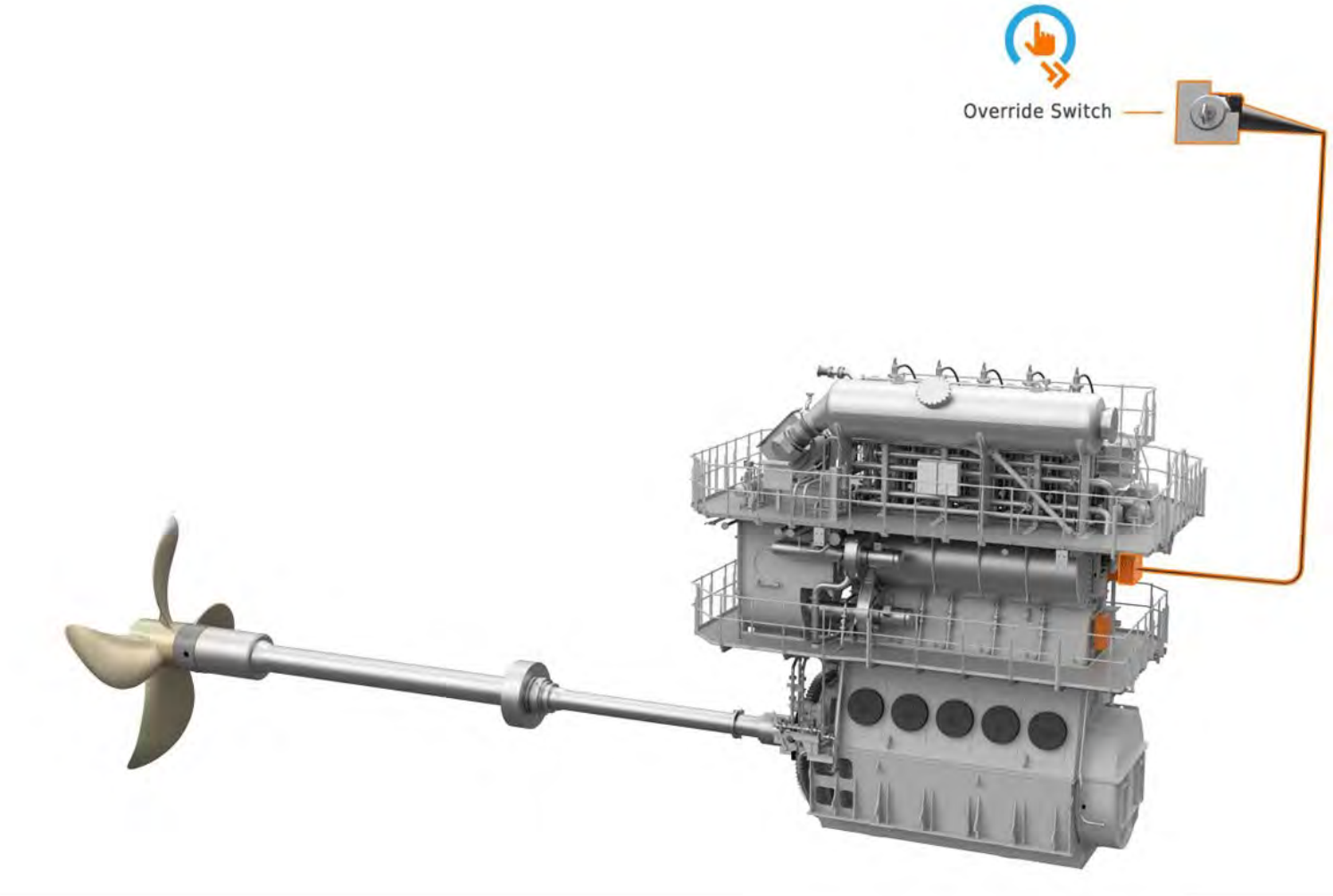
b. New max fuel index on stand

c. New max fuel index

Source: MAN

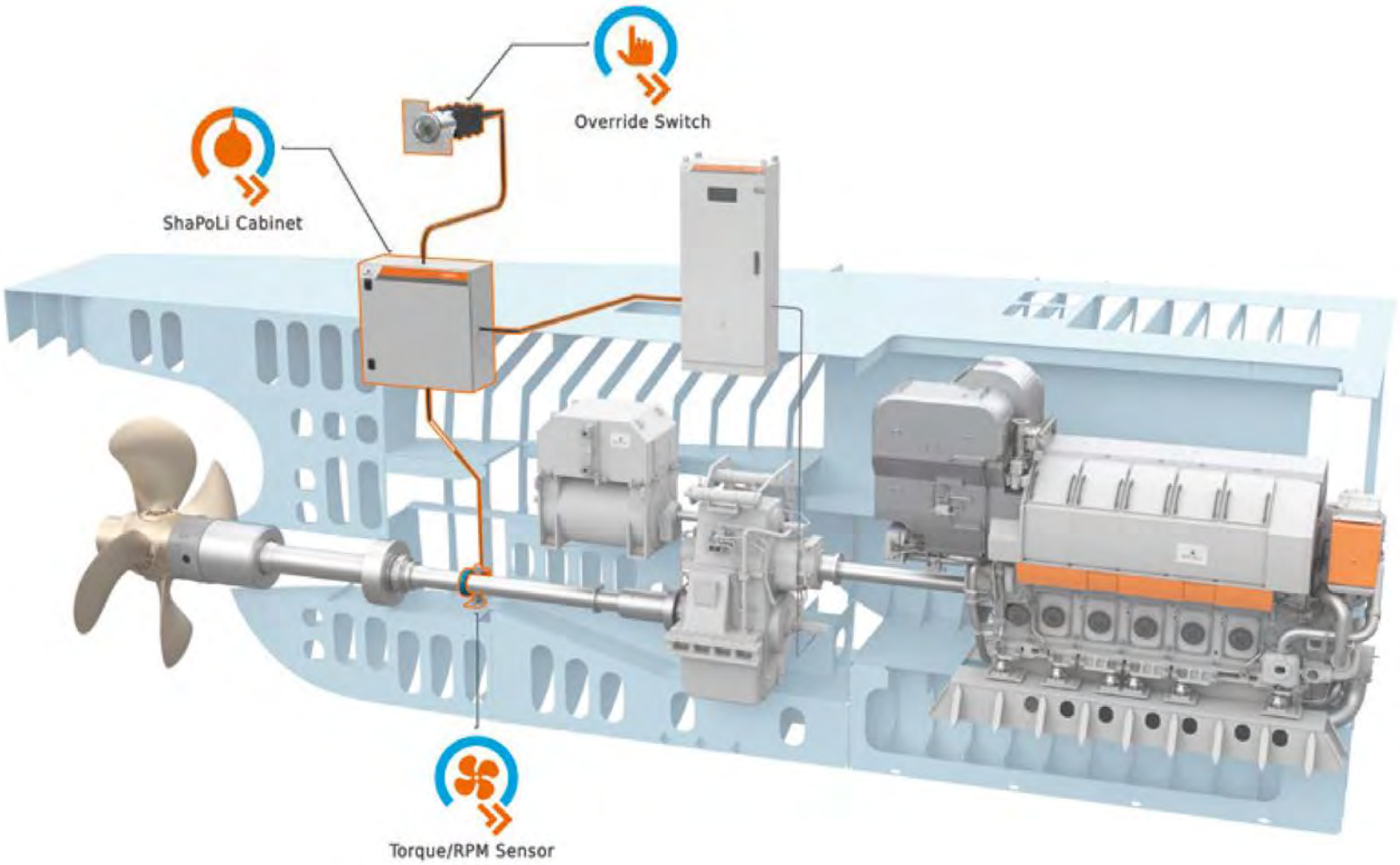
Engine Power Limitation (EPL)

- **Electronically Controlled Engines:** the maximum fuel index is limited via the control software.



Source: Wärtsilä

Shaft Power Limitation (ShaPoLi)



Source: Wärtsilä

Automatic Control

- Via fuel index.
- Via propeller pitch, for ships with Controllable Pitch Propellers (CPP).

Manual Control

- SHaPoLi calculates the shaft power based on torque meter and triggers an alarm so that the Operator can reduce the engine speed.

From where the OPL can be released?

- The ship's master and the officer in charge of a navigational watch (OICNW) should have **control of the OPL system from the bridge**, wherever this setup is technically possible and feasible.

- Retrofitting a new bridge control system is not required for cases where:
  - **The engine room is manned during critical operating conditions** (e.g., adverse weather, piracy, manoeuvring); and
  - This **process is clearly defined** in the ship's safety management system.

When can the power reserve be used?

The IMO guidelines state that the **use of reserve power is only allowed for** the purpose of **securing the safety of a ship or saving life at sea**. For example:

- Operating in adverse weather
- Operating in ice-infested waters
- Participation in search and rescue operations
- Avoidance of pirates
- Engine maintenance

Who can override the power limitation?

- The ship operator should clearly define the authority of the **officer of the watch** to override the OPL either directly from the bridge or through coordination with the engine officer in the engine room.

- In case of overriding, **the Master should be informed as soon as possible**, and the **event should be recorded.**

Time to release the power limitation

- Depending on the OPL type, **the time to override the limitation may vary significantly** and will be referenced in the Onboard Management Manual (OMM).

- For a specific ship, key **crew members should be aware of the time to override the power limitation** considering the type of OPL, location onboard, necessary tools, etc.

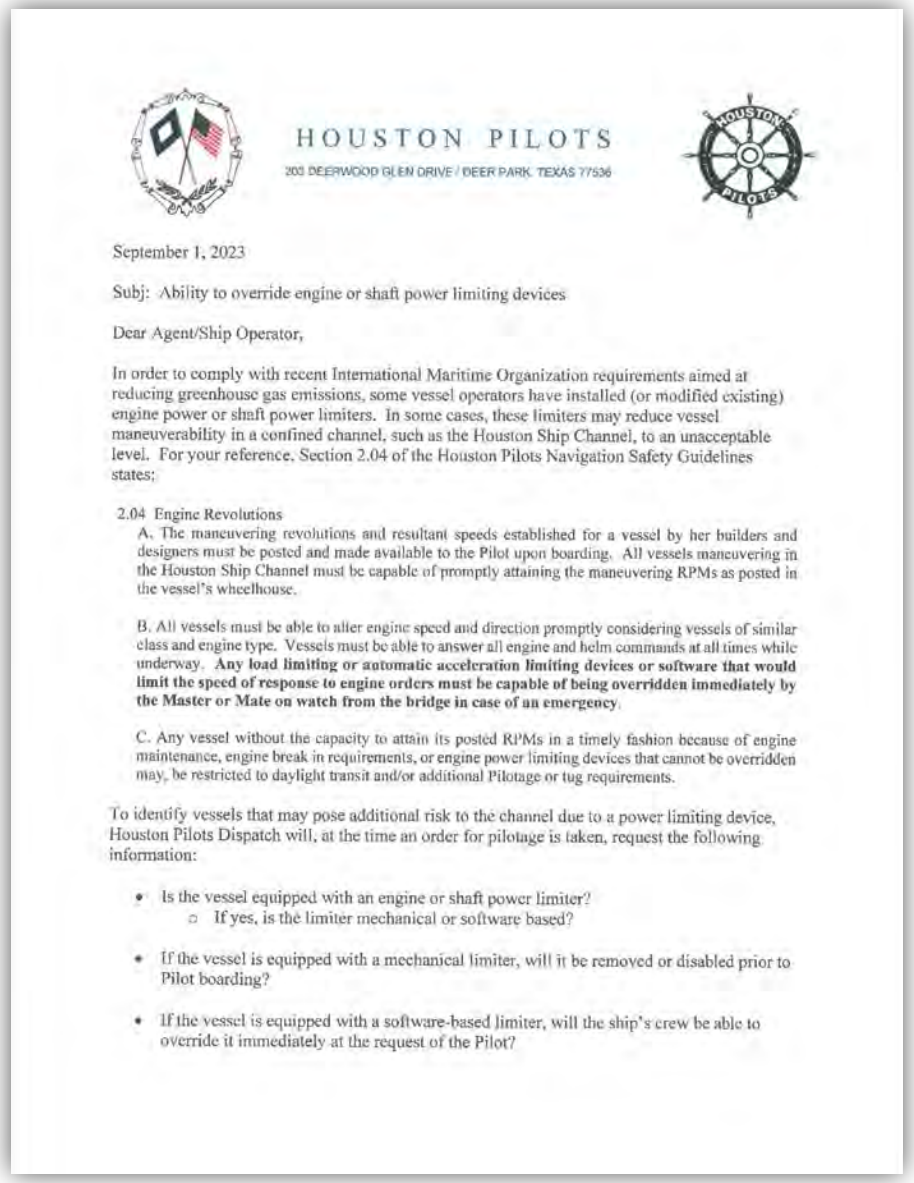
- The bridge **Pilot card and Master Pilot Exchange (MPE)** should **highlight the restriction imposed by the power limitation** resulting from the SHaPoli/EPL installations **and the time duration required to bypass** such a system.

Impact of the OPL in restricted waters

From the viewpoint of a ship's pilot/mooring master, issues arise whenever they do not have access to the full power of the ship's main engine. The full-engine power might be crucial for the following purposes:

- It **helps increase the effectiveness of the ship’s rudder**. This is achieved by generating more water flow over the rudder, enhancing its steering capability.
- **It provides the necessary speed**. Total engine power is needed to reach and maintain the speed that the ship's pilot deems sufficient for proper navigation.
- It generates the **astern thrust needed to slow the ship down** or completely halt its forward movement.

Preventive OPL Override



HOUSTON PILOTS

203 DEERWOOD GLEN DRIVE / DEER PARK, TEXAS 77536

September 1, 2023

Subj: Ability to override engine or shaft power limiting devices

Dear Agent/Ship Operator,

In order to comply with recent International Maritime Organization requirements aimed at reducing greenhouse gas emissions, some vessel operators have installed (or modified existing) engine power or shaft power limiters. In some cases, these limiters may reduce vessel maneuverability in a confined channel, such as the Houston Ship Channel, to an unacceptable level. For your reference, Section 2.04 of the Houston Pilots Navigation Safety Guidelines states:

2.04 Engine Revolutions

A. The maneuvering revolutions and resultant speeds established for a vessel by her builders and designers must be posted and made available to the Pilot upon boarding. All vessels maneuvering in the Houston Ship Channel must be capable of promptly attaining the maneuvering RPMs as posted in the vessel's wheelhouse.

B. All vessels must be able to alter engine speed and direction promptly considering vessels of similar class and engine type. Vessels must be able to answer all engine and helm commands at all times while underway. **Any load limiting or automatic acceleration limiting devices or software that would limit the speed of response to engine orders must be capable of being overridden immediately by the Master or Mate on watch from the bridge in case of an emergency.**

C. Any vessel without the capacity to attain its posted RPMs in a timely fashion because of engine maintenance, engine break in requirements, or engine power limiting devices that cannot be overridden may, be restricted to daylight transit and/or additional Pilotage or tug requirements.

To identify vessels that may pose additional risk to the channel due to a power limiting device, Houston Pilots Dispatch will, at the time an order for pilotage is taken, request the following information:

- Is the vessel equipped with an engine or shaft power limiter?
  - If yes, is the limiter mechanical or software based?
- If the vessel is equipped with a mechanical limiter, will it be removed or disabled prior to Pilot boarding?
- If the vessel is equipped with a software-based limiter, will the ship's crew be able to override it immediately at the request of the Pilot?

Guidance from Houston Pilots:

- OPL must be capable of being **overridden immediately** by the Master or Mate on watch **from the bridge** in case of an emergency.
- Vessels that do not comply with the above may be restricted to daylight transit and/or additional Pilotage or tug requirements.

Their checklist:

1. Is the vessel equipped with an engine or shaft power limiter? If yes, is the limiter mechanical or software-based?

2. If the vessel is equipped with a **mechanical limiter, will it be removed or disabled before Pilot boarding**?

3. If the vessel is equipped with a **software-based limiter, will the ship's crew be able to override it immediately at the request of the Pilot**?

Recommendations associated with the interface with ports/terminals

Do

- The Master and bridge team should know and comply with national and local regulations about the **readiness to override the OPL** in pilotage waters.

- Information about the **ship's handling characteristics**, both **with and without EPL,** should be **available** in an updated Pilot Card and displayed on the bridge for reference by the bridge team and the Pilot.

- Master-Pilot Information Exchange should **address how and under what circumstances the OPL can be overridden**, the time required to override the OPL, and the ship's manoeuvring characteristics with the OPL.

- **Risk assess the operation considering the impact of power limitation**. Consider additional operational risk management measures for vessels with OPL arrangements that cannot be operated from the bridge—for example, escort tugs.

- Enhance **weather monitoring.**

- Review and address **potential implications to the ship and terminal's Emergency Response Plan (ERP)** due to power limitation.

Recommendations associated with the interface with ports/terminals

Don’t

- Avoid policies that make the Master and bridge team unwilling to override the EPL when necessary.
- **Don’t withhold information** on changed vessel manoeuvring characteristics from the Pilot/Mooring Master.
- The **Master or bridge team being unfamiliar** with the procedures for overriding an OPL.
- **Avoid complex override procedures** or systems that delay access to the power reserve.
- **Don't disregard the influence of weather conditions** when considering vessels' power limitation resulting from OPL installations.

Wrap up

IMO regulations to reduce GHG emissions

- EEXI
- EEDI
- CII

→

Less propulsion power available

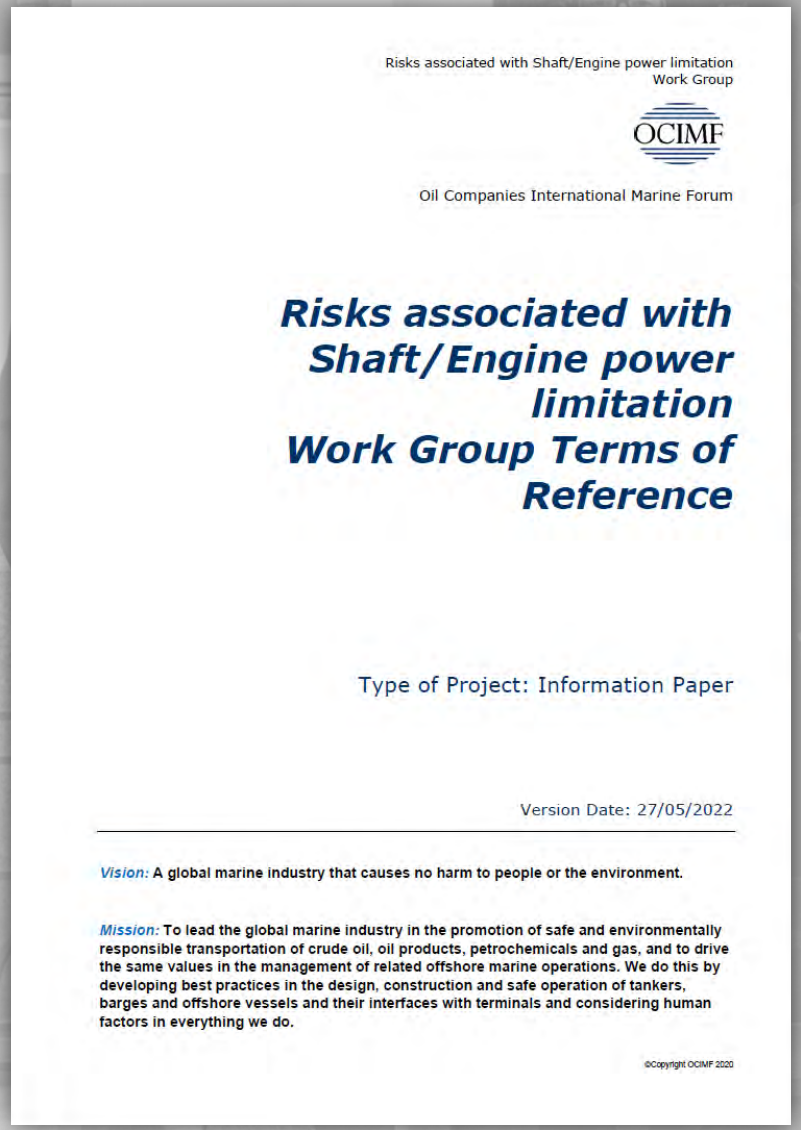
- Overridable or non-overridable power limitations to comply with regulations

→

Impact over vessel's manoeuvrability

- Open sea
- Restricted waters
- Station keeping

EPL WG



Risks associated with Shaft/Engine power limitation Work Group

OCIMF

Oil Companies International Marine Forum

Risks associated with Shaft/Engine power limitation Work Group Terms of Reference

Type of Project: Information Paper

Version Date: 27/05/2022

Vision: **A global marine industry that causes no harm to people or the environment.**

Mission: **To lead the global marine industry in the promotion of safe and environmentally responsible transportation of crude oil, oil products, petrochemicals and gas, and to drive the same values in the management of related offshore marine operations. We do this by developing best practices in the design, construction and safe operation of tankers, barges and offshore vessels and their interfaces with terminals and considering human factors in everything we do.**

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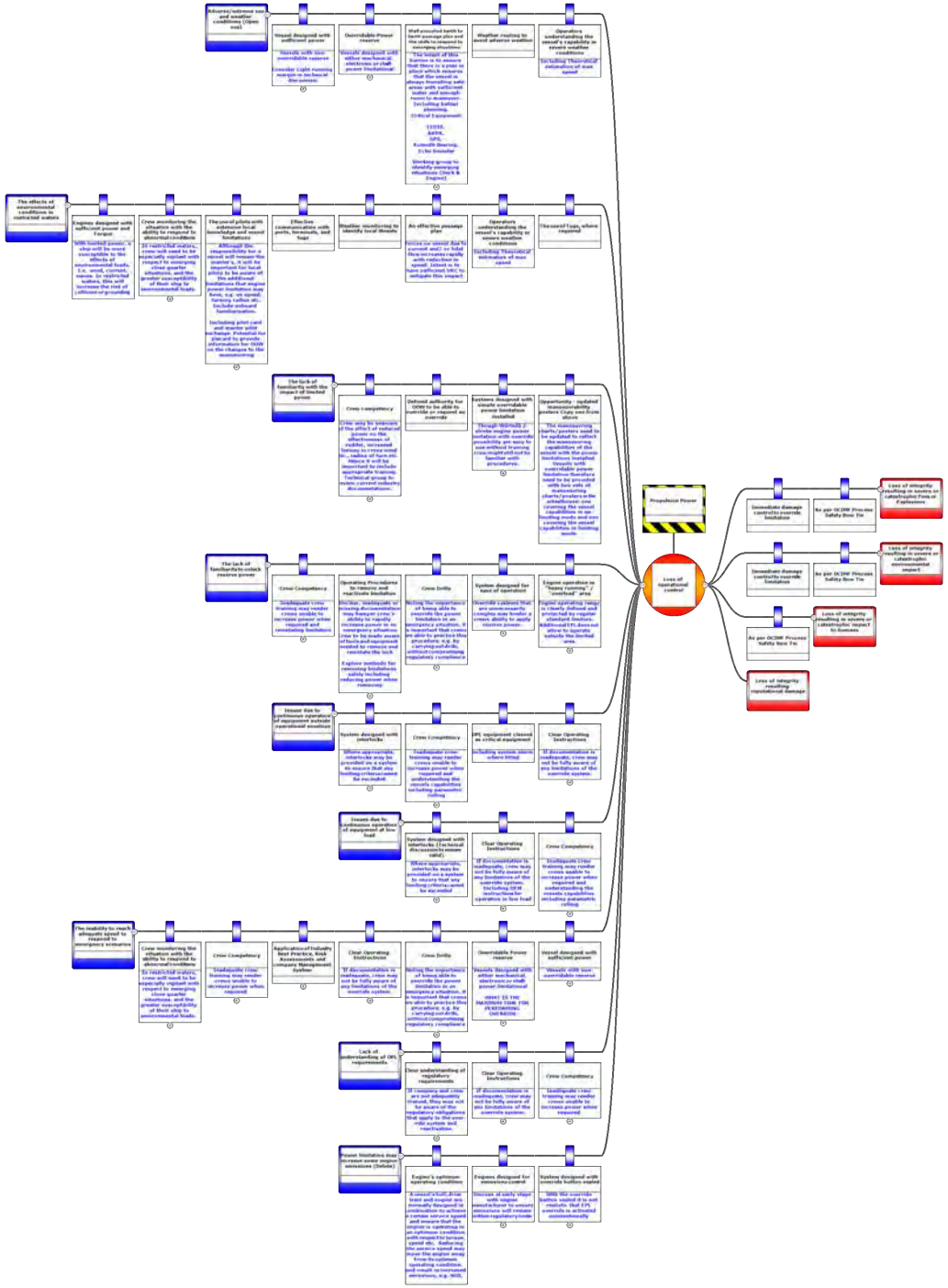
Objective: To produce an information paper to provide best practice guidance for managing the risks associated with the implementation and operation of propulsion power limitation based on identified gaps of the newly introduced EEXI regulation.

Risk Mapping

Threats being covered:

- Adverse/extreme sea and weather conditions (Open sea)
- The effect of environmental conditions in restricted waters
- The lack of familiarity with the impact of limited power
- The of familiarity to unlock reserve power
- Issues due to continuous operation of equipment outside operational envelope
- Issues due to continuous operation of equipment at low load
- The inability to reach adequate speed to respond to emergency scenarios
- Lack of understanding of OPL requirements



Publication target date

Q4/2023

Offshore

Offshore Adviser

Graham Coles

Offshore Adviser

Graham began his career at sea, sailing as a cadet with an offshore operator and progressively sailed on various types of offshore support vessels that included Platform Supply Vessels, Anchor Handling Tug supply vessels, Dynamic Positioning Dive Support Vessels and DP construction vessels for a period of nearly 12 years.

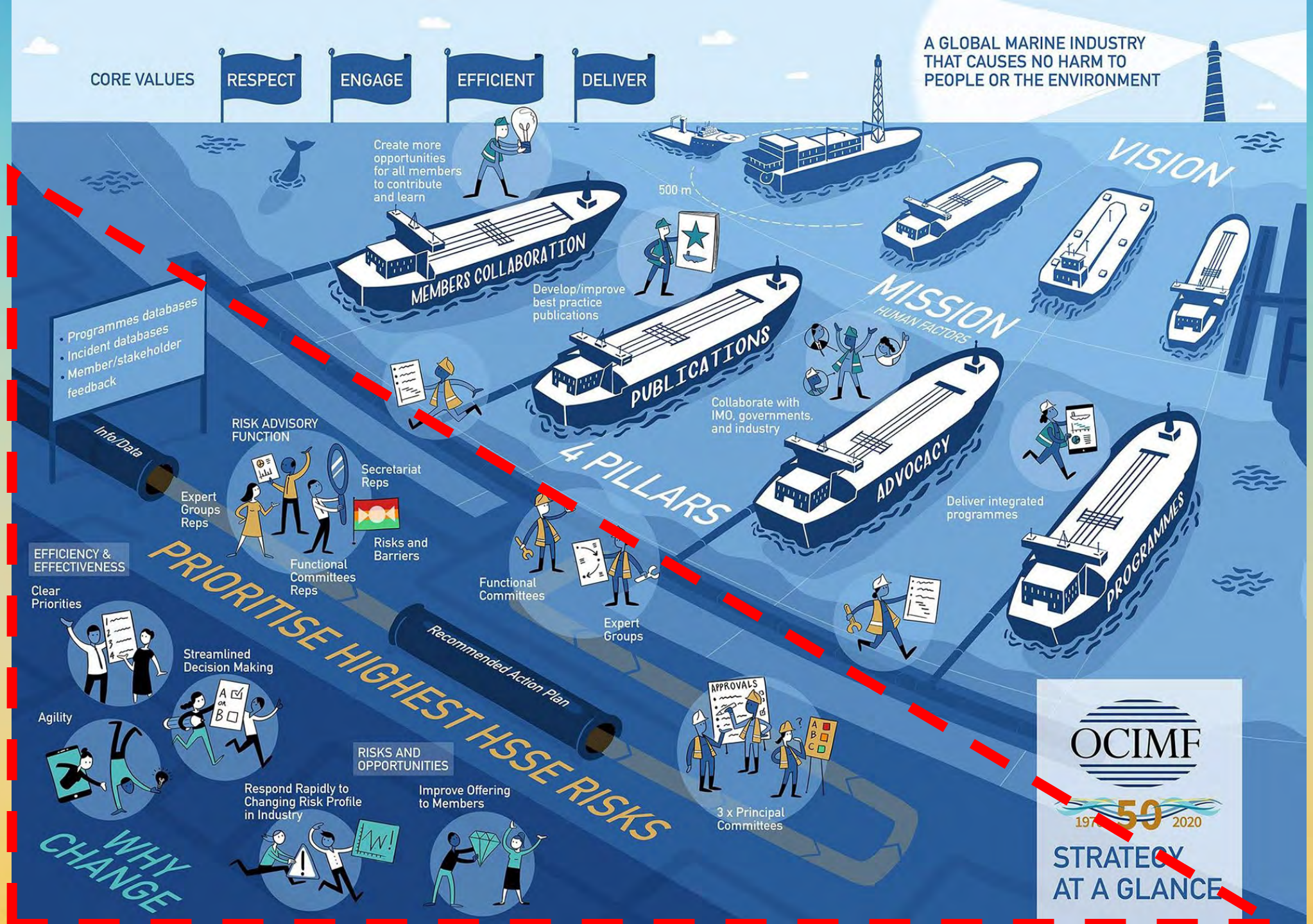
In 2007, Graham moved ashore and began working as a Marine Superintendent for an offshore vessel operator. Over the next four years, he progressed to the role of Operations Manager and was responsible for supporting a fleet of 27 offshore vessels. Between 2011 and 2016, Graham worked for Exxon Mobil (IMT) and BG Group in several upstream marine assurance positions.

In 2016, he joined Chevron as a Marine Advisor as part of the 'Future Growth Project – Wellhead Pressure Management Project', (FGP-WPMP). After three years supporting this project, Graham moved to Bangkok to take over the role of Marine Safety, Reliability and Efficiency (MSRE) Process Authority for Asia South Business Unit. This role was responsible for leading and implementing upstream marine assurance activities across the region.

Graham has previously participated in OCIMF activities at OVID Focus Group (OFG), Offshore Marine Operations Group (OMOG), and he has also acted as OCIMF DP Representative to the Nautical Institute, Dynamic Positioning Training Executive Group (DPTEG).

Organisational Structure

Offshore Committee


CORE VALUES
RESPECT
ENGAGE
EFFICIENT
DELIVER
A GLOBAL MARINE INDUSTRY THAT CAUSES NO HARM TO PEOPLE OR THE ENVIRONMENT
VISION
MISSION
HUMAN FACTORS
500 m
Create more opportunities for all members to contribute and learn
MEMBERS COLLABORATION
Develop/improve best practice publications
PUBLICATIONS
Collaborate with IMO, governments, and industry
ADVOCACY
Deliver integrated programmes
PROGRAMMES
4 PILLARS
• Programmes databases
• Incident databases
• Member/stakeholder feedback
Info/Data
RISK ADVISORY FUNCTION
Expert Groups Reps
Secretariat Reps
Risks and Barriers
Functional Committees Reps
Functional Committees
Expert Groups
PRIORITISE HIGHEST HSSE RISKS
Recommended Action Plan
EFFICIENCY & EFFECTIVENESS
Clear Priorities
Streamlined Decision Making
Agility
WHY CHANGE
RISKS AND OPPORTUNITIES
Respond Rapidly to Changing Risk Profile in Industry
Improve Offering to Members
APPROVALS
3 x Principal Committees
OCIMF
1970 50 2020
STRATEGY AT A GLANCE

MEMBERS COLLABO
Develop/improve best practice publications
PUBLICATIONS
MISSION
HUMAN FACTORS
Collaborate with IMO, governments, and industry
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Improve Offering to Members
WHY CHANGE
OCIMI
1970 50 20
STRATEGY,
AT A GLAN

2023 Focus Areas and Activities

Offshore

Collisions, Allisions, Groundings	• DP Assurance • Management of attending Offshore Vessels within the Safety Zone
Loss of Primary Containment - Structural Integrity	• FPSO Assurance and Asset Integrity
Life-Saving Appliances Operations and Drills	• Offshore Lifeboat and Fast Rescue Craft Operations on Fixed and Floating Installation
Offshore Renewable Operations	• Engage with members and industry stakeholders to assess key HSSE issues and develop recommendations on gaps and opportunities

Offshore Publications

New publications

- Preliminary Findings for Best Practice Management of Survival Craft on Fixed/Floating Offshore Installations

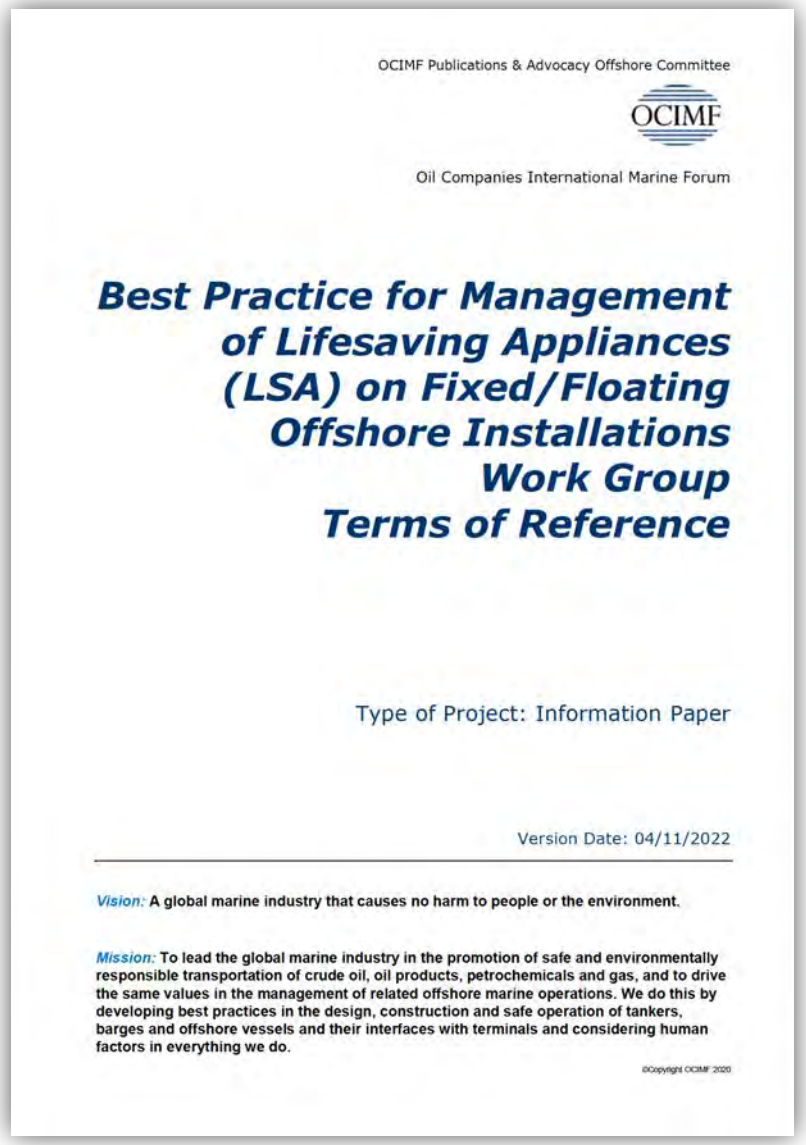
Updates (In Progress)

- Guidelines for the Purchasing and Testing of SPM Hawsers *[2000]*
- Guide to Manufacturing and Purchasing Hoses for Offshore Moorings (GMPHOM) *[2009]*

Updates (Planned)

- Competence Assurance Guidelines for F(P)SO's *[2008]*

Publication Being Developed



OCIMF Publications & Advocacy Offshore Committee

OCIMF

Oil Companies International Marine Forum

Best Practice for Management of Lifesaving Appliances (LSA) on Fixed/Floating Offshore Installations Work Group Terms of Reference

Type of Project: Information Paper

Version Date: 04/11/2022

Vision: A global marine industry that causes no harm to people or the environment.

Mission: To lead the global marine industry in the promotion of safe and environmentally responsible transportation of crude oil, oil products, petrochemicals and gas, and to drive the same values in the management of related offshore marine operations. We do this by developing best practices in the design, construction and safe operation of tankers, barges and offshore vessels and their interfaces with terminals and considering human factors in everything we do.

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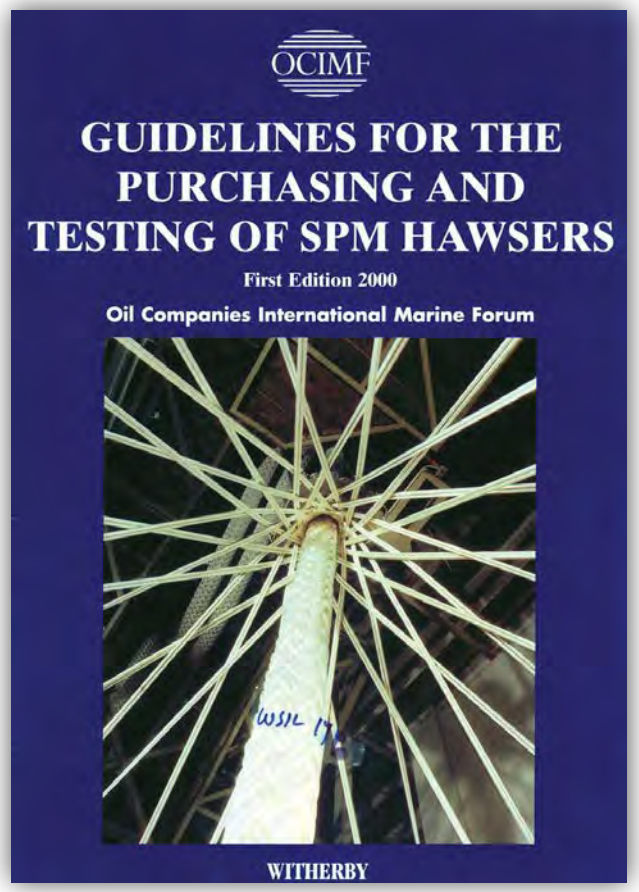
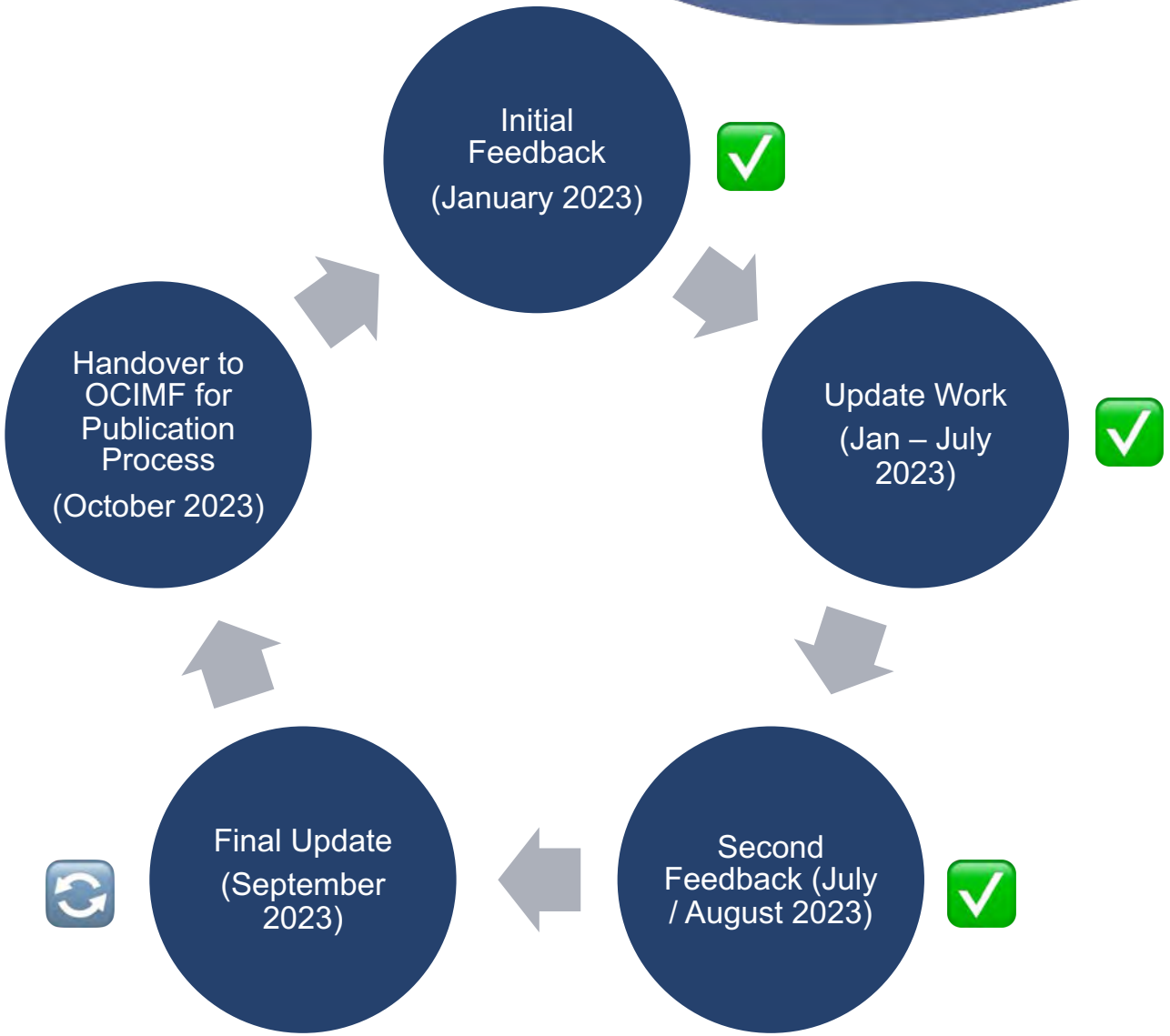
An information paper (IP) focused on best practices for **alternative means of testing and maintaining lifesaving appliances (LSA) on offshore, fixed and/or floating installations**.

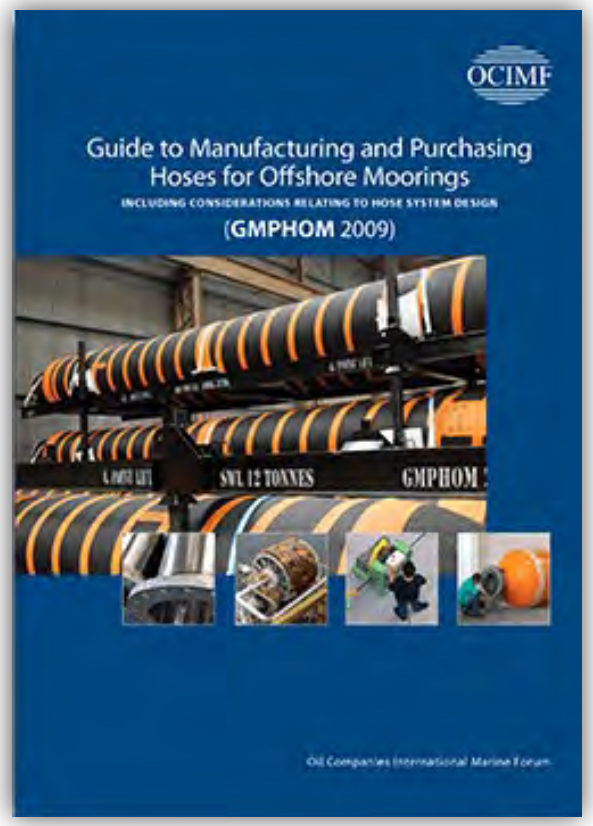
Publications Being Revised



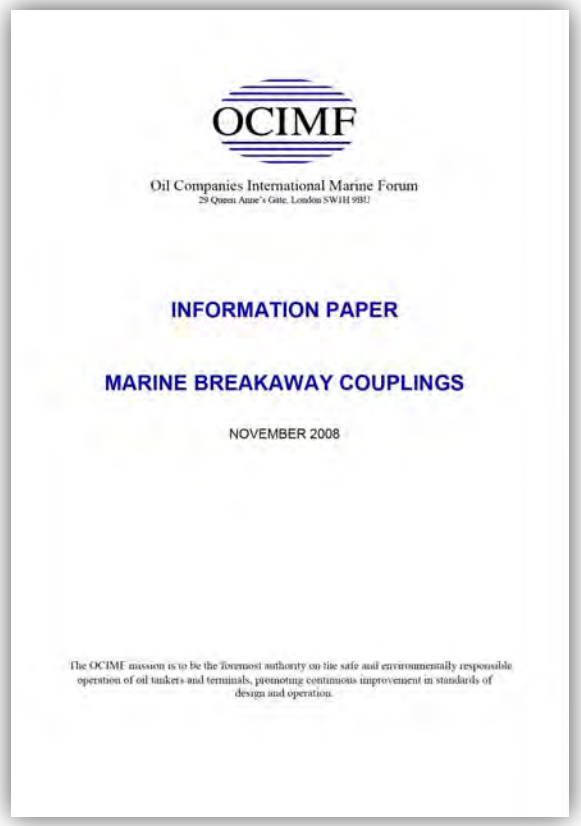
Guidelines for the Purchasing and Testing of SPM Hawsers, *2000*



Publications Being Revised

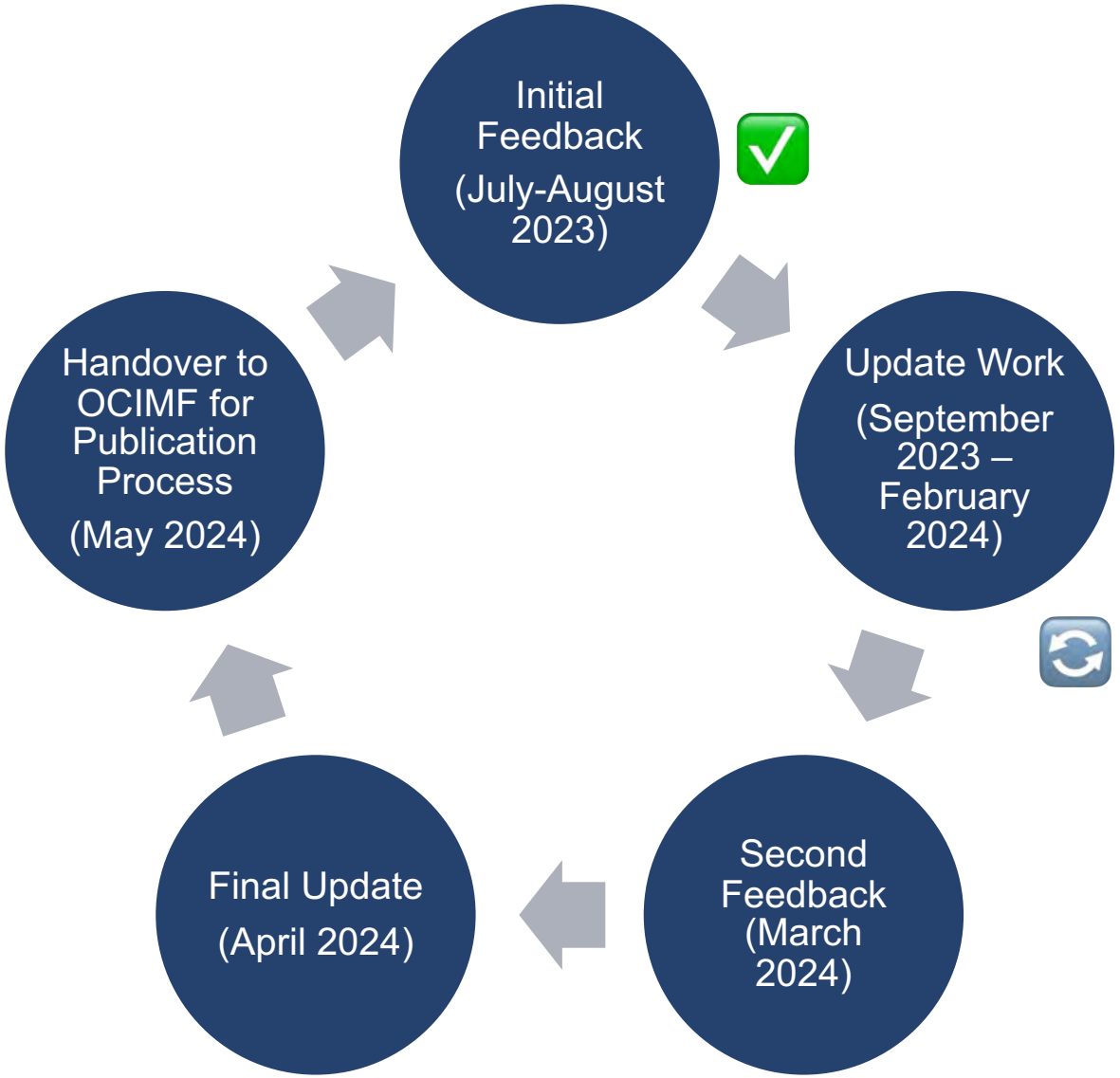


GMPHOM, 2009



MBC Paper, 2008

The WG has engaged with industry and members for suggestions.



Offshore Advocacy and Collaboration

OCIMF collaborates for the development and global dissemination of industry's best practices

- Classification Societies
- IOGP
- OVID Inspectors
- Cordage Institute
- MTS
- Rig Operators
- Flag States
- OPITO
- Technical Vessel Operators
- SLOM
- Intermanager
- IMO
- Maritime Regulators
- G-OMO
- ICS
- IMCA
- Marine Safety Forum
- Nautical Institute
- Original Equipment Manufacturers
- G+
- EnerGeo Alliance
- GWO
- International Regulators Forum
- Safer Together

STS and Human Factors

Filipe Santana

Engineering Adviser

OCIMF

Nautical Adviser

Kevin Coelho

Nautical Adviser

Kevin is a Class 1 Master Mariner with just over 30 years of substantive experience in the Shipping and Maritime Industry. Kevin started his career out at sea with Mobil Shipping before moving across to Shell, having sailed on a variety of oil tankers and LNG carriers.

Kevin made the transition ashore in 2003 where he worked for Brunei Shell Petroleum as an Offshore Marine Operations Supervisor involved in upstream and downstream maritime operations, with responsibilities ranging from on-hire and suitability inspections for vessels in the offshore industry, serving as a Tow Master for MODU's to Piloting and Load Master duties for vessels calling at the crude oil export terminal SBMs and LNG export terminal. Kevin then transitioned to London to work in Shell Shipping and Maritime as a Marine Facilities Advisor in the Ports and Terminals department and in a Global Maritime Assurance role.

Kevin then joined Shell Australia to work as the Terminal Team Lead onboard 'Prelude' FLNG and was involved with the Asset for her final 6 months in the yard through to hook-up, commissioning and start-up operations. Most recently Kevin has been working in the Maritime Security, Emergency Response and DPA department of Shipping and Maritime based in London.

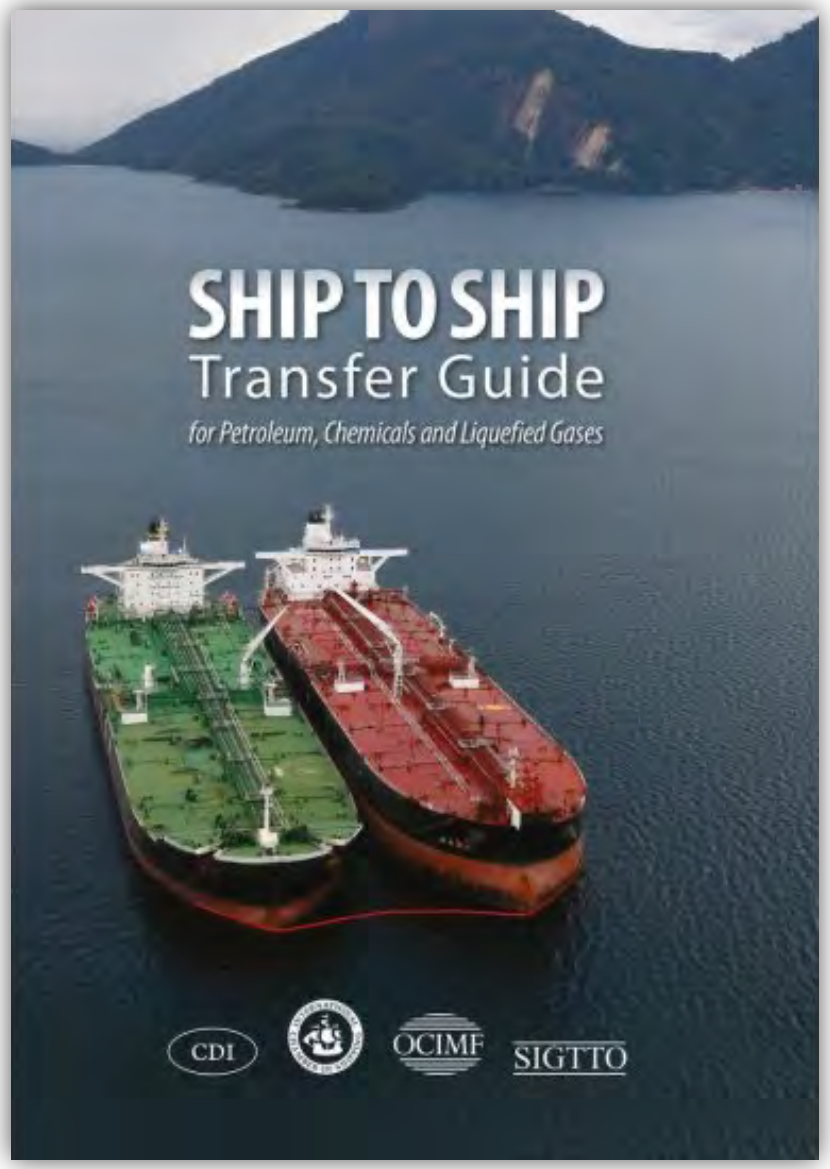
In previous years, Kevin represented Shell at OCIMF in the Offshore European Regional Panel group and in the Competence Assurance Guidelines for Mooring, Loading and Lightering Masters working group.

Quiz

1. What’s the name of the first OCIMF guideline published?

2. When was it published?

Quiz



1. What's the name of the first OCIMF guideline published?

2. When was it published?

1975

Revision of the STS Transfer Guide

Update

22 participants sourced for the working group from co-authors, including OCIMF STS Expert Group

Work commenced in **July 2023**

The **comments register template was circulated** to capture proposals for change.

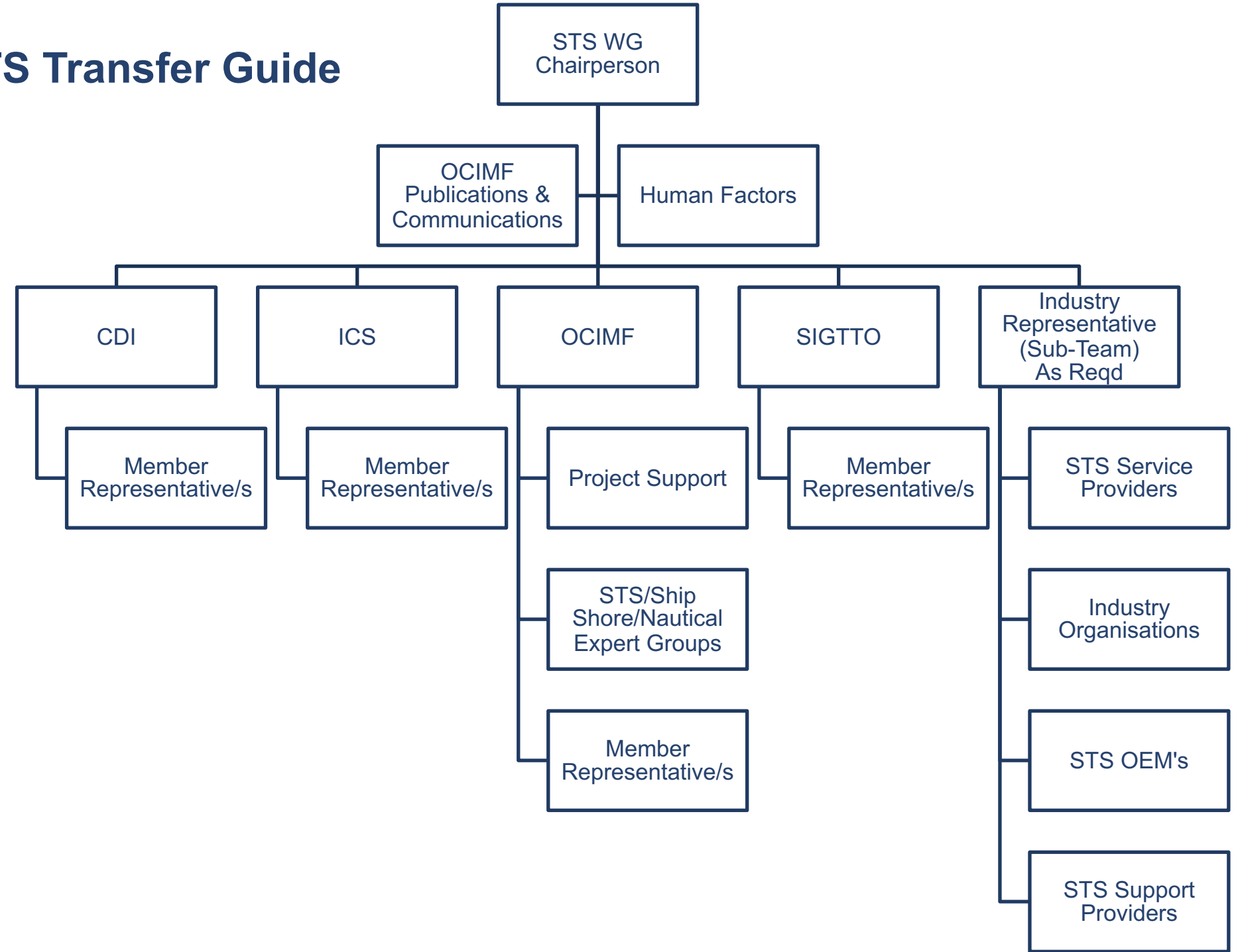
3rd party **STS service providers** and relevant practitioners were invited **to provide comments**

Target completion of **revision activities by the end of 2024** and **publication in 2025**.

The first working group meeting reviewed the **Project Plan and Organisation**.

Revision of the STS Transfer Guide

Governance



Scope of Work

- Scope of Work included:
  - **Review all existing Sections and Appendices**, including pictures/diagrams and technical references.
  - **Update relevant interfaces with other industry guidance and standards**: ISGOTT, MEG4, STS SP MSA, and Liquefied Gas Handling Principles on Ships and in Terminals.
  - **Incorporate guidance from relevant industry technical papers**, including OCIMF Information Papers such as personal transfers by crane, STS transfer hoses, and mooring load analysis.
  - **Confirm alignment with relevant industry regulations** such as MARPOL.
  - Consider expanding guidance to **include Human Factors principles** where appropriate.

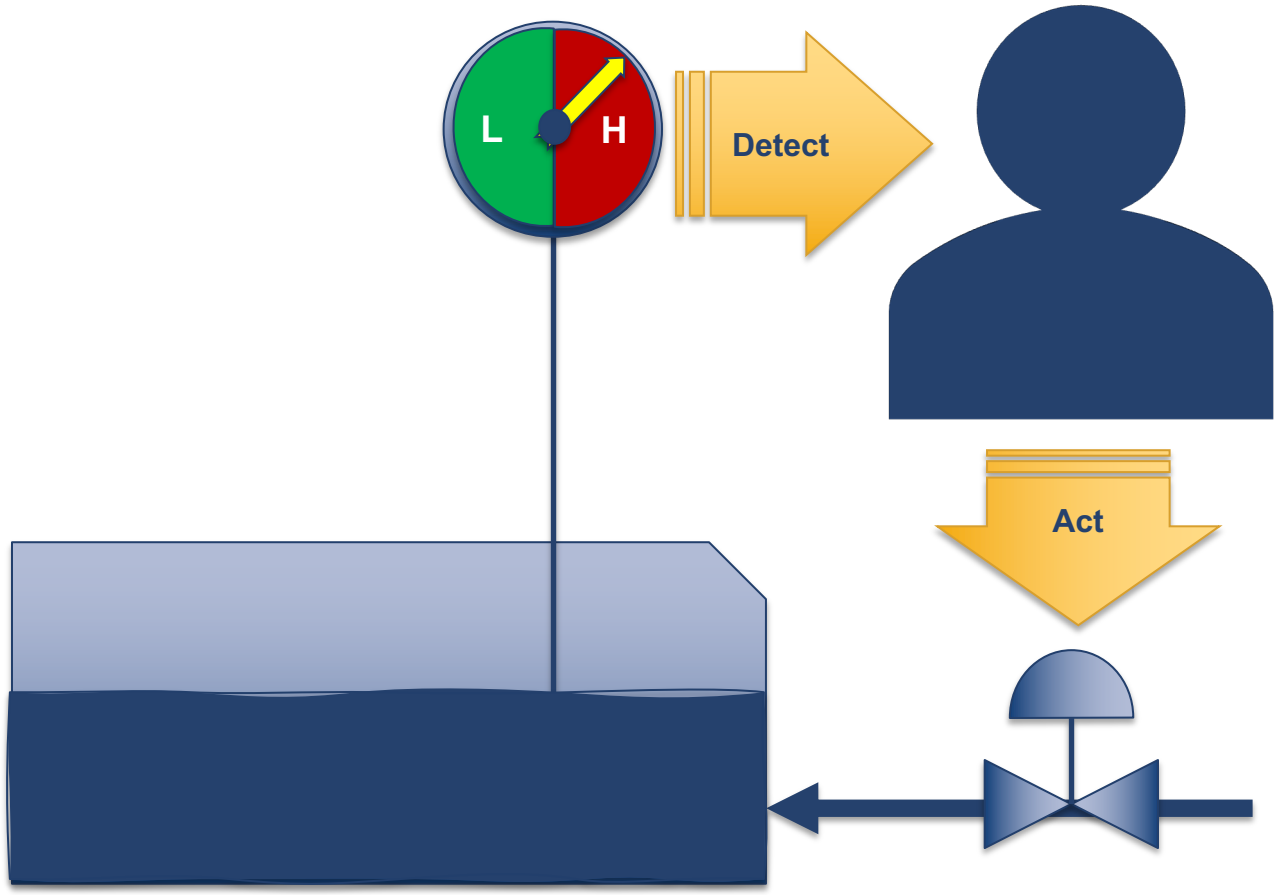
- To date, 763 comments have been received covering all Sections and most Appendices:
  - Majority of comments (61%) from just 5 of the existing 22 Sections/Appendices, of which 39.1% from:
    - Section 9 – Equipment (14.7%)
    - Section 1 – General Principles (12.2%)
    - Section 3 – Safety (12.2%)

Human factors

Human Factors

Definition

People are part of the system. **If you take people away, many systems fail.**

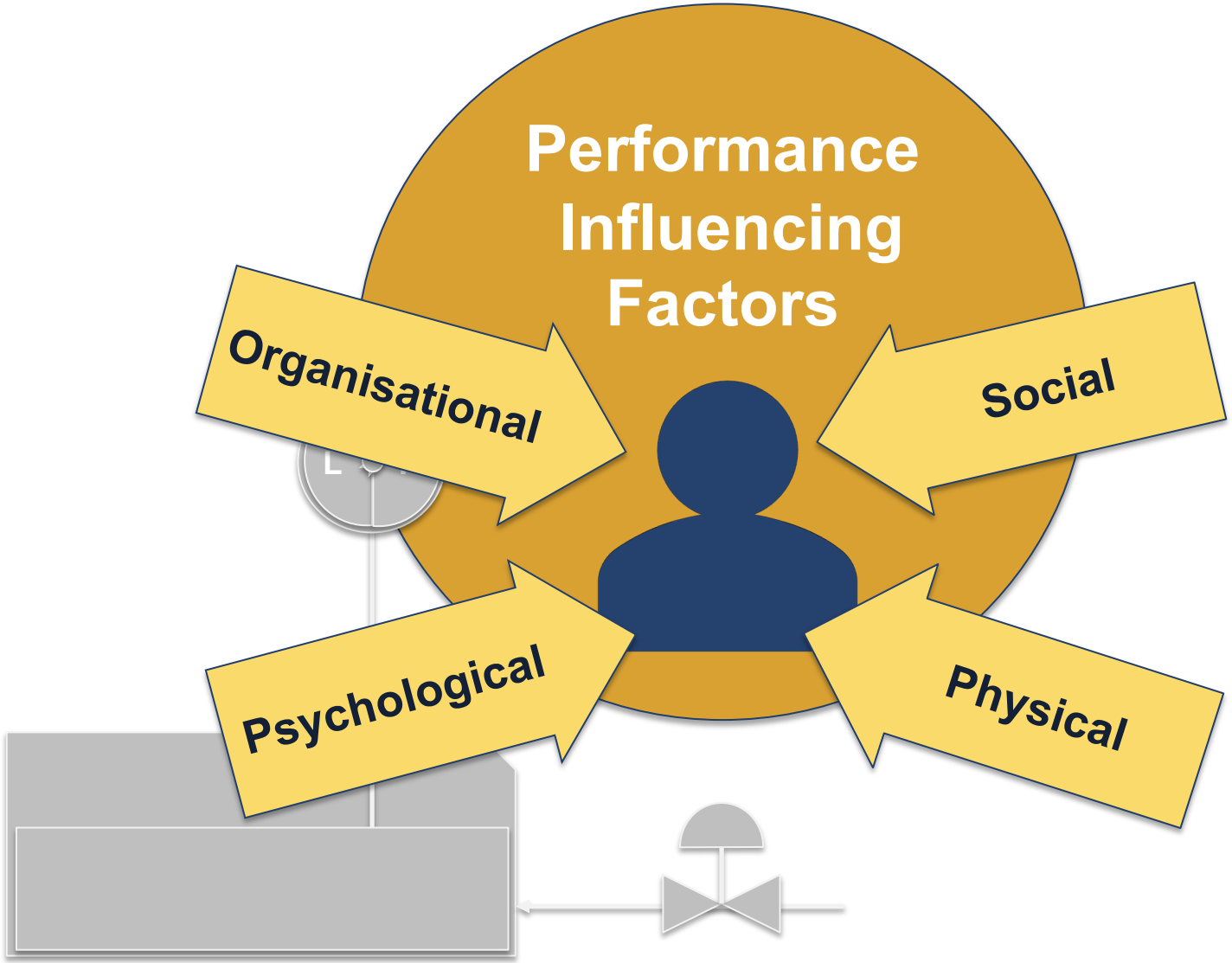


Human Factors

Definition

Human Factors are the **physical, psychological** and **social** characteristics that affect human interaction with **equipment, systems, processes, other individuals and work teams**

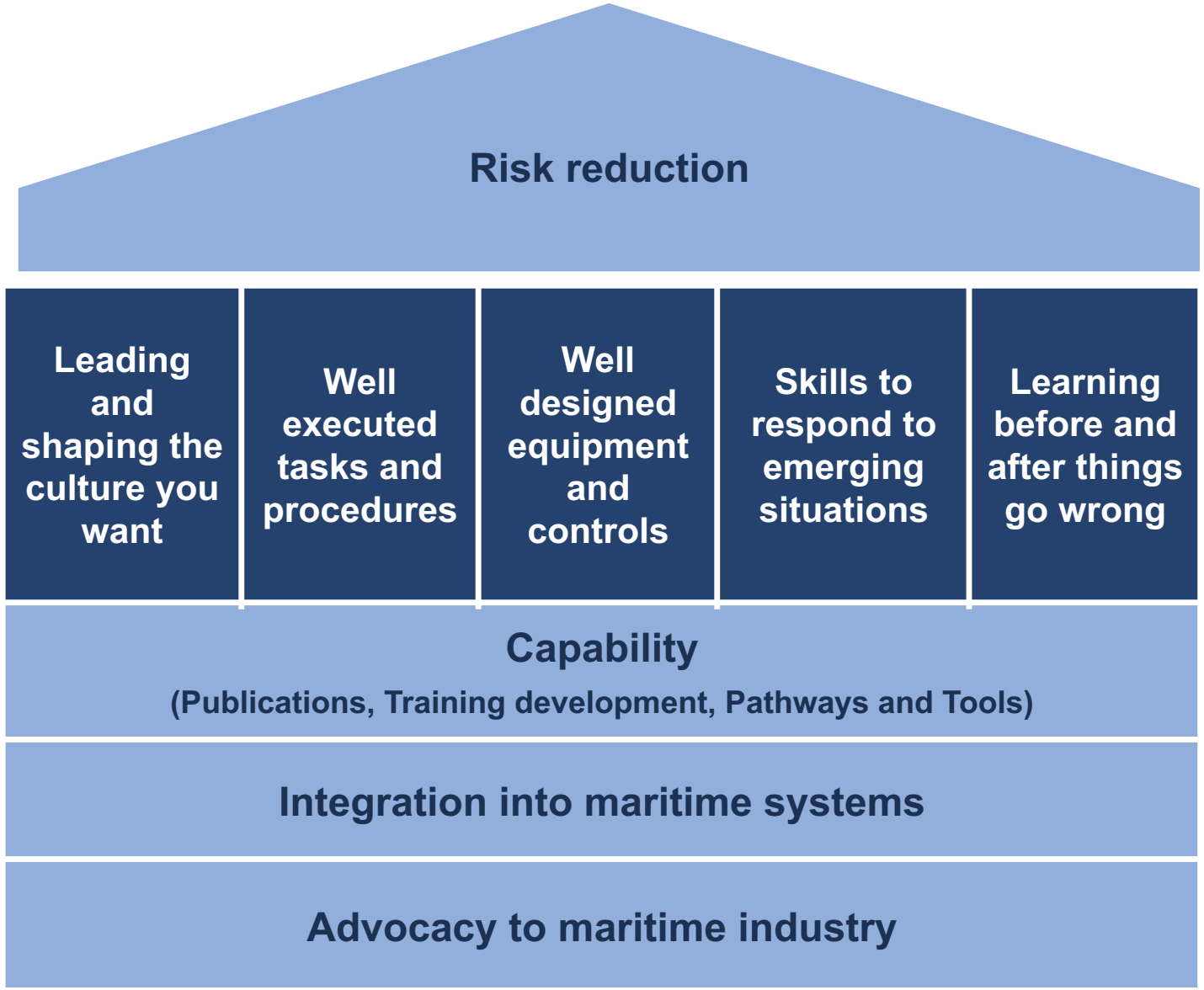
OCIMF Human Factor Approach



OCIMF's Human Factor approach

Targeting risk

🎯 Our goal is to materially reduce risk to personnel, ships and terminals by **addressing the systems and latent conditions that influence errors, actions and decisions**.



Human Factors Guiding principles

From the OCIMF Human Factor Approach

🚫 People will make mistakes.

🤷 People's actions are rarely malicious and usually make sense to them at the time.

⚙️ Mistakes are typically due to conditions and systems that make work difficult.

🔍 Understanding the conditions in which mistakes happen helps us prevent or correct them.

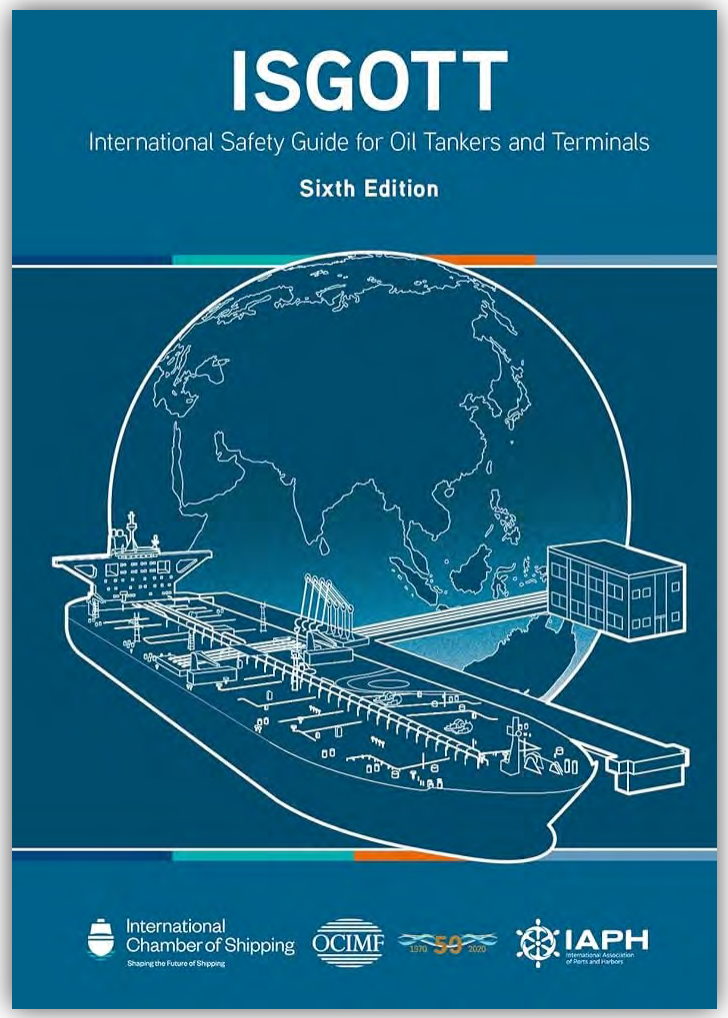
💡 People know the most about their work and are key to any solution.

🛠️ Plants, tools, and activities can be designed to reduce mistakes and manage risk better.

👑 Leaders help shape the conditions that influence what people do.

🌱 It matters how leaders respond when things go wrong. Take the opportunity to learn.

Human Factors in OCIMF Publications

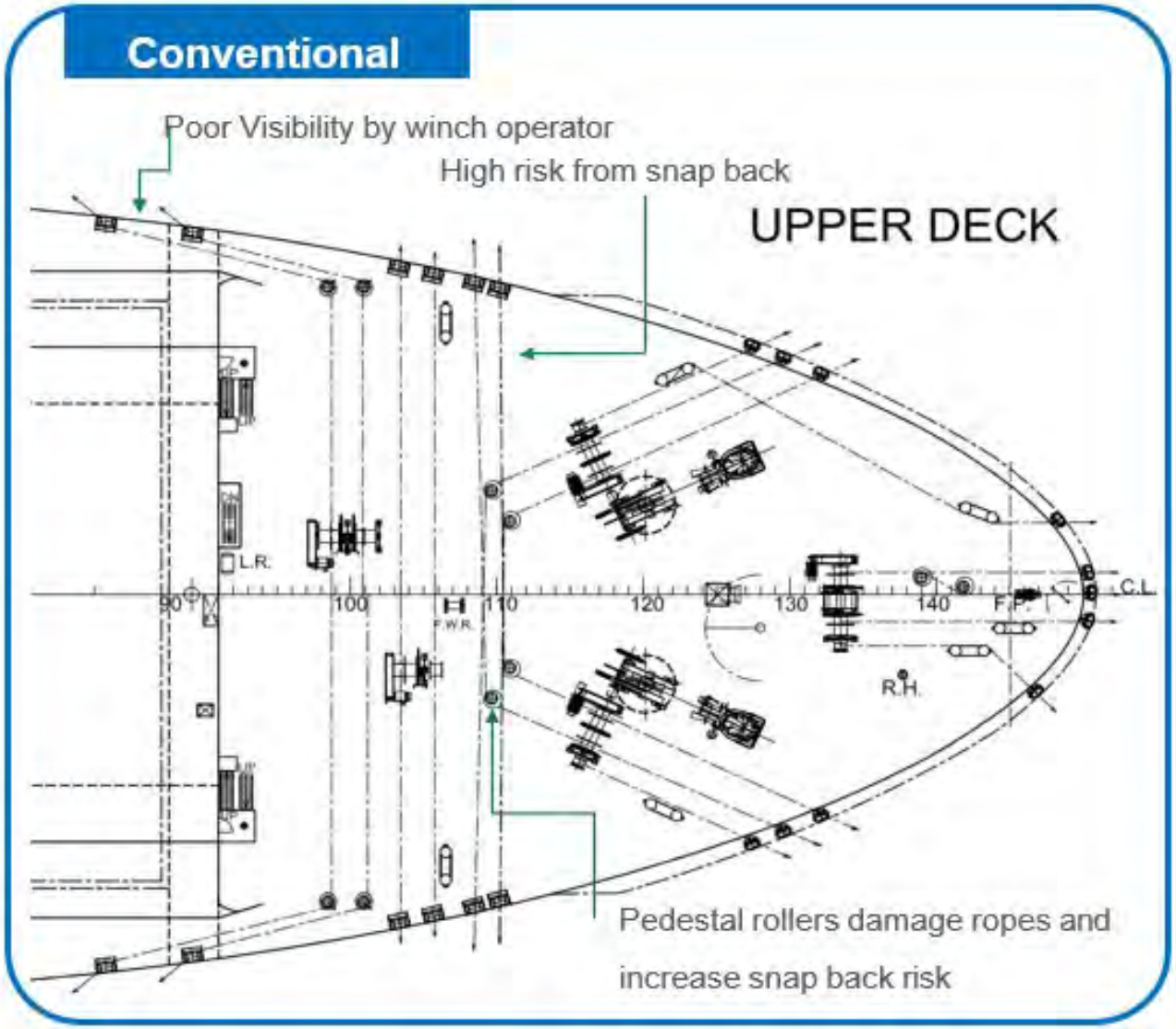


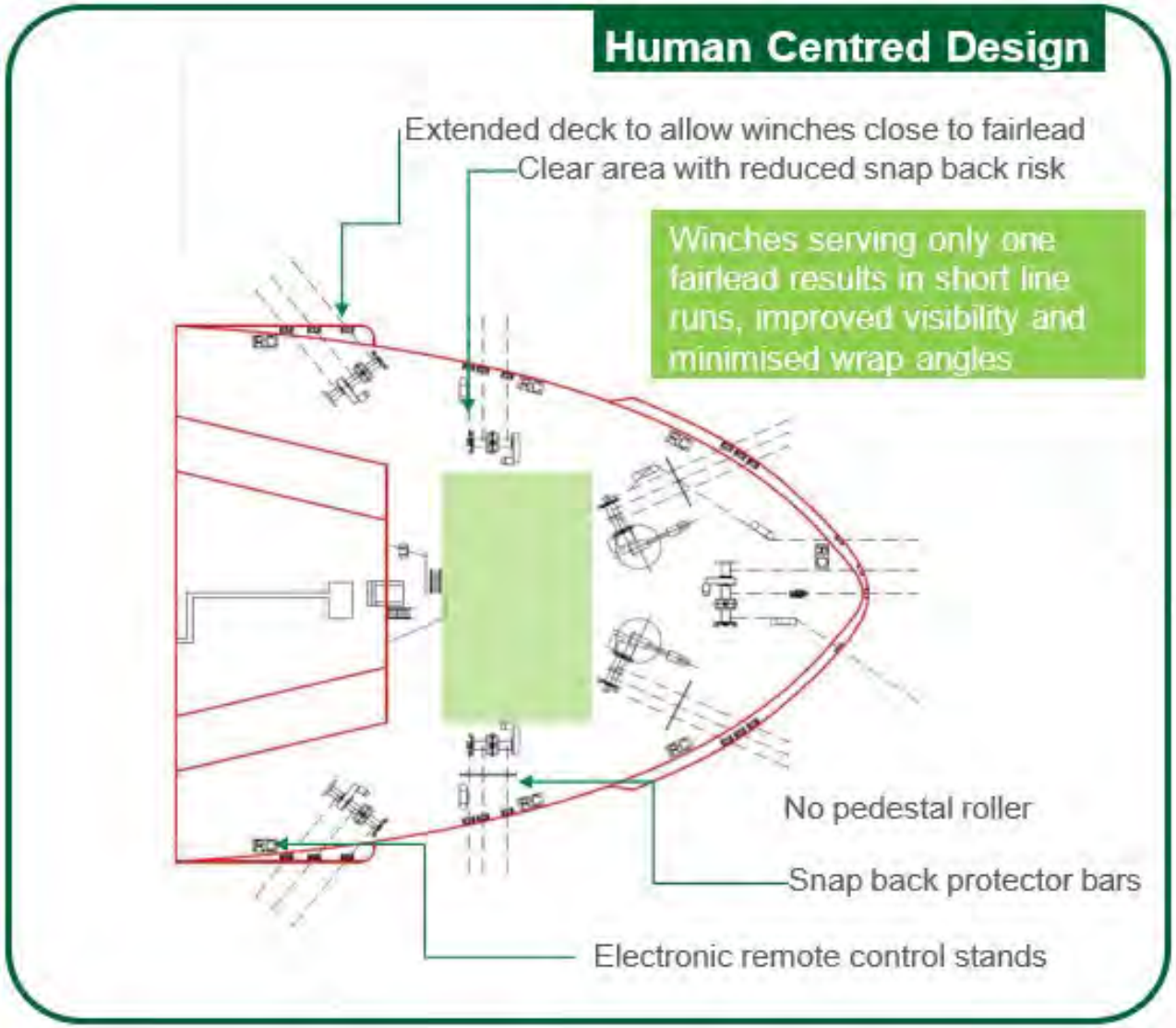
Mooring Equipment Guidelines

- Section two: Human factors
  - Safety critical task analysis
  - Human-Centred Design
  - Operations and maintenance
  - Competence and training
  - Health and wellbeing

Human Factors Guiding Principles

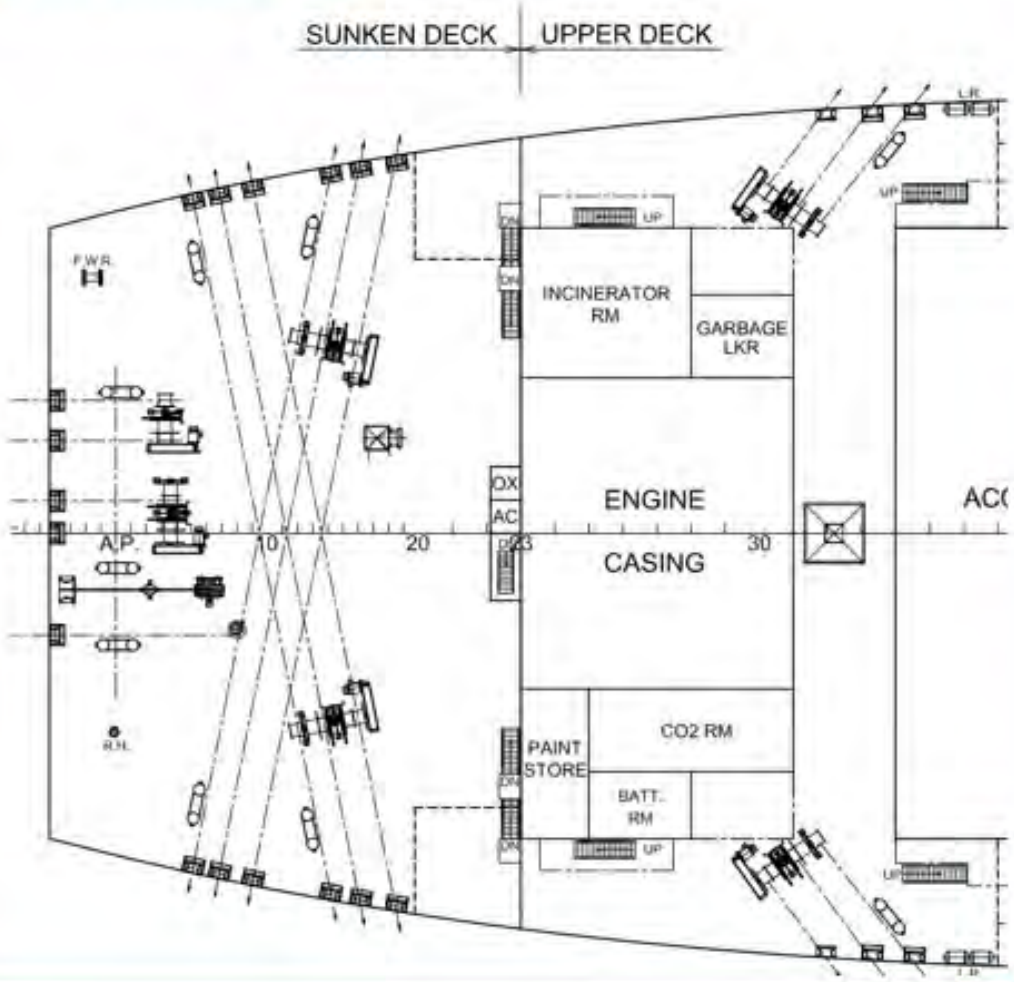
Human-Centric Design on Mooring Arrangements



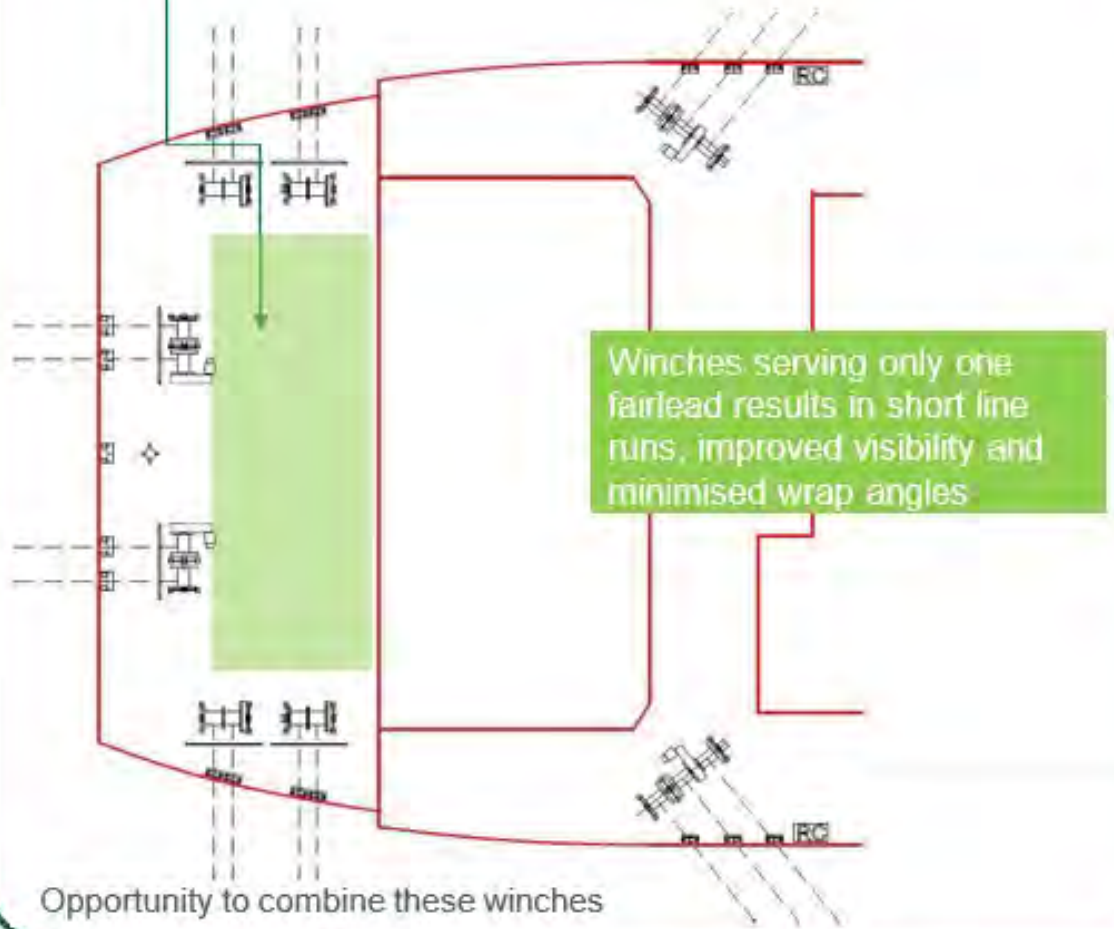


Human-Centric Design on Mooring Arrangements

Conventional

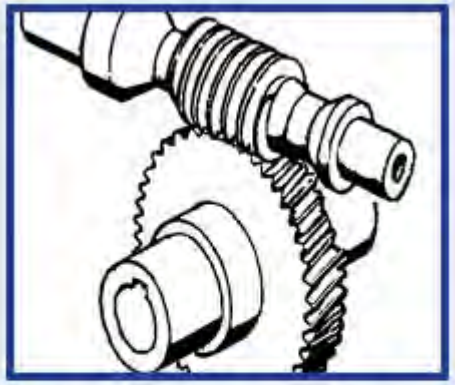


Human Centred Design



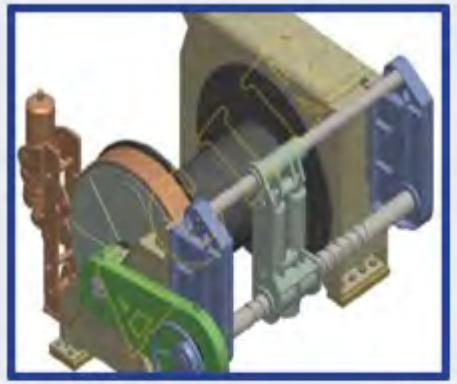
Human-Centric Design on Mooring Arrangements

Remote monitoring of load on winches/mooring lines



Remote controlled winch drum engagement/disengagement

Remote winch Brake operation



Auto transfer between Storage to Split drum.

Currently, 15 ships in service have human-centre mooring decks.

Human-Centric Design on Mooring Arrangements

Remember: **Safe Mooring operations rely on people**.

- Mooring operations are repetitive to ship and shore but are critical to a safe ship/shore interface operation.
- Any human errors or equipment failures can result in a severe injury or a fatality.
  - 14% of all mooring-related injuries result in death (1 in every 7).
  - 40% involve life-changing injuries to limbs.
- Of all incidents investigated so far:
  - 42% - Broken ropes/wires
  - 58% - Failed equipment and/or inappropriate design

Mooring operations continue to hurt/kill people (onboard ship and ashore).

Group photo 📷

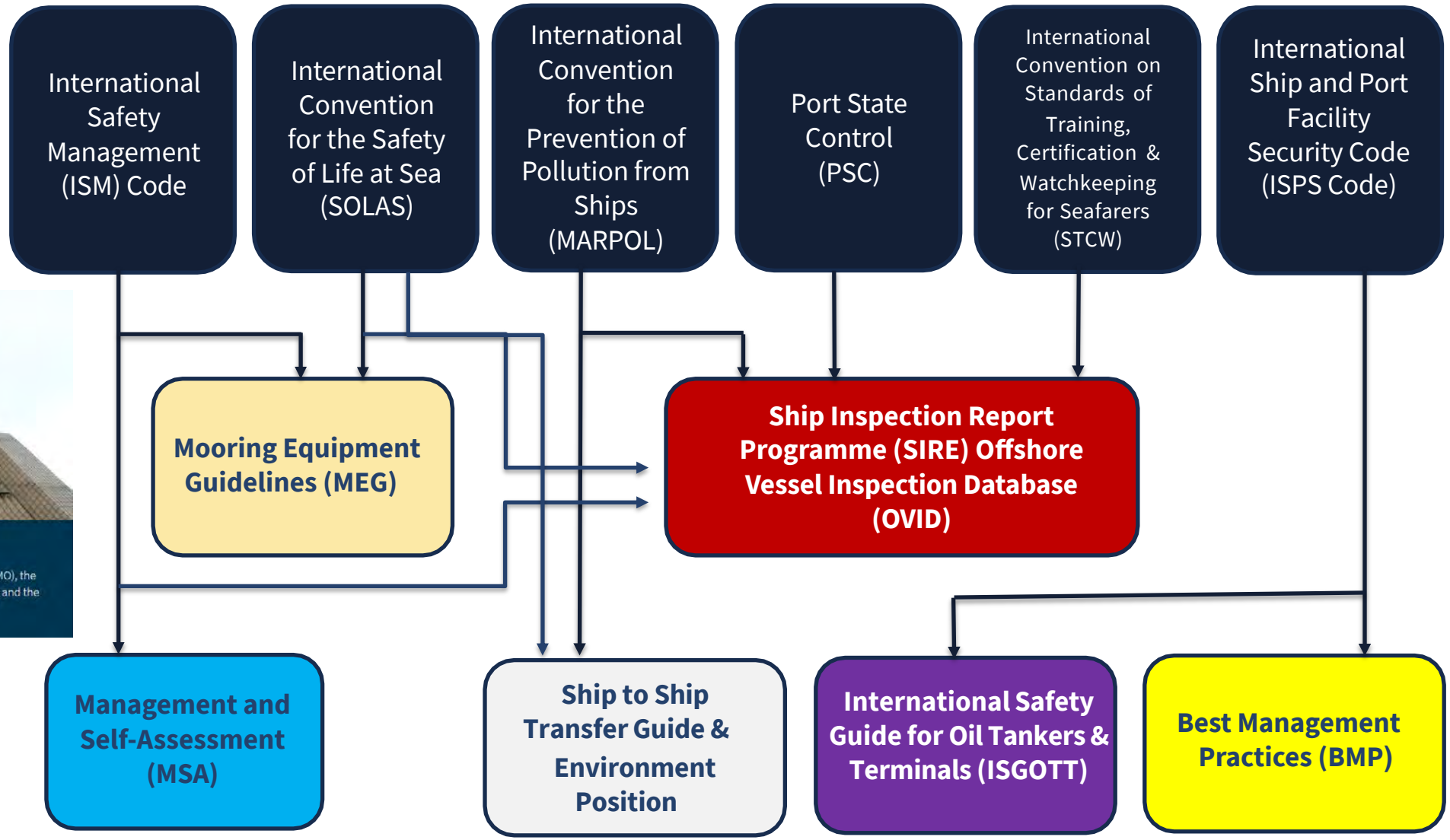
Coffee break ☕

IMO Overview

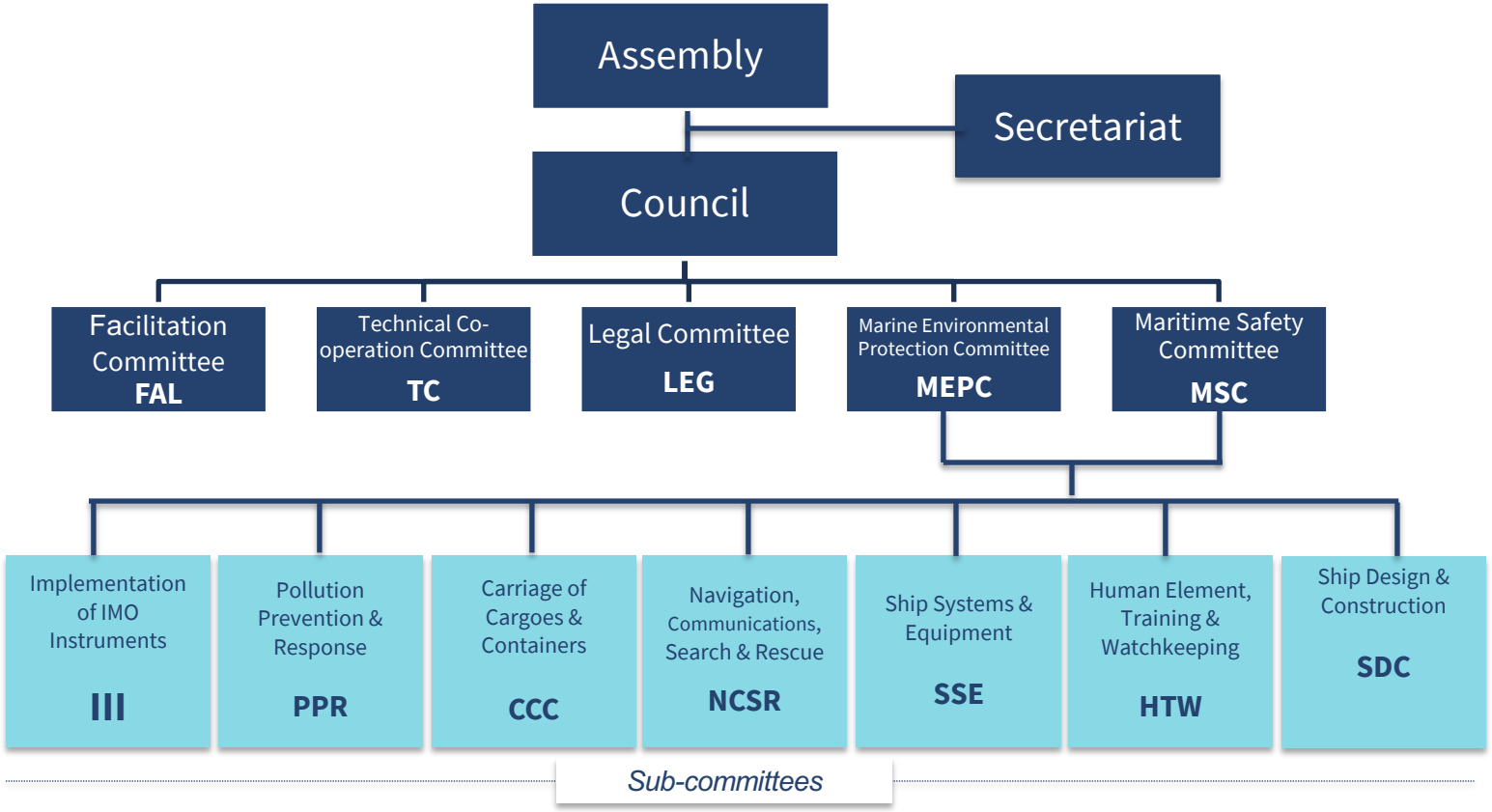
Saurabh Sachdeva

Publications and Advocacy Director

OCIMF as an Observer at IMO since 1971



The IMO structure



INTERNATIONAL MARITIME ORGANIZATION

- 175 Member States
- 3 Associate Members
- 66 IGOs
- 88 NGOs
- Approximately 300 permanent employees work for IMO Secretariat

Advocacy at the IMO – how we prioritise

Priority 1: Advocate & engage

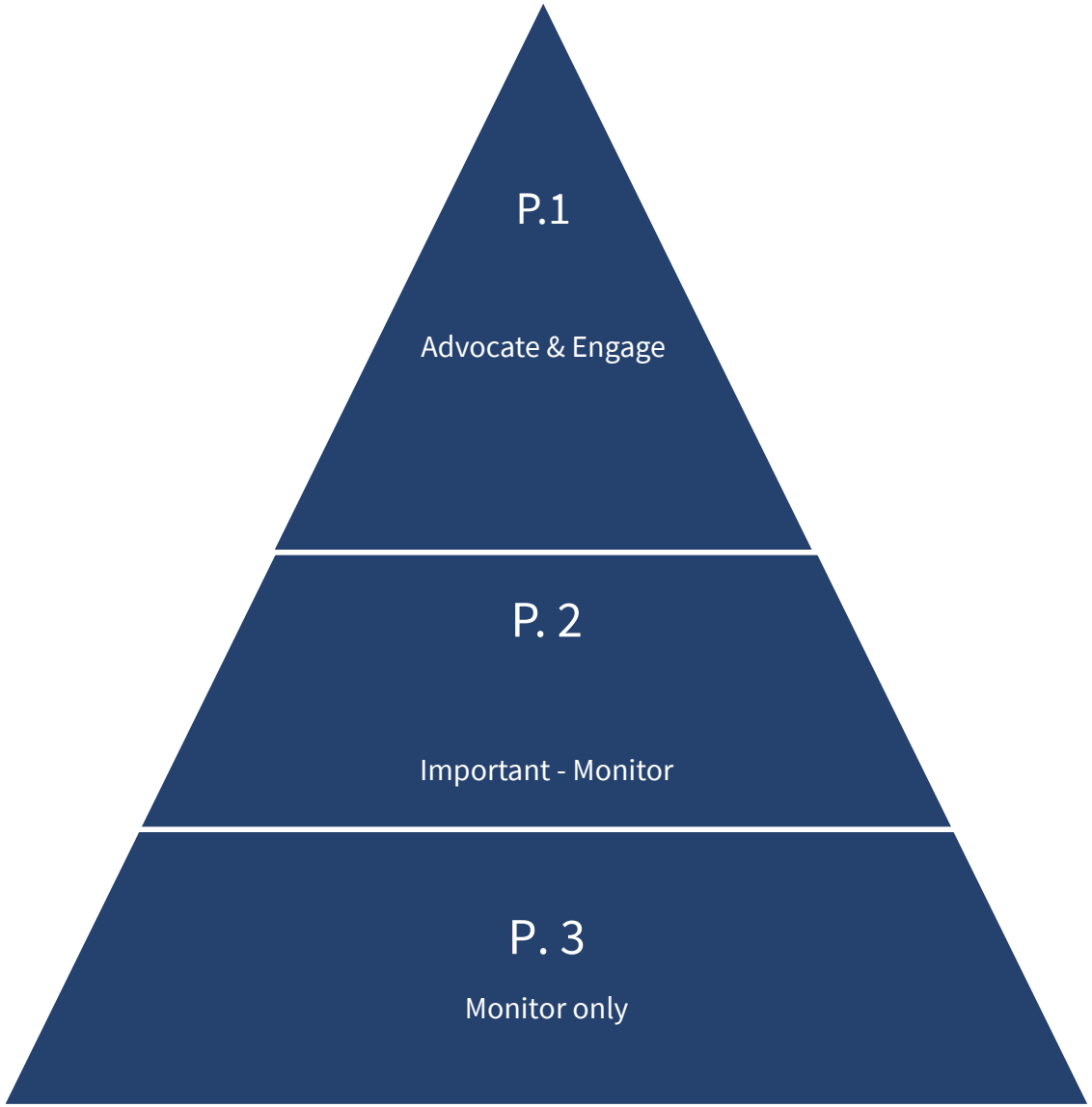
- OCIMF has the expertise to offer solutions and advocacy action is needed to drive legislative change via member States
- Existing OCIMF publications on the subject-matter is available and a capability to provide immediate technical expertise.

Priority 2: Important and monitor

- Important, with the potential to be escalated to P.1, subject to developments at the IMO and collective wisdom of OCIMF membership.
- Issues at IMO that are closely linked with OCIMF publications and programmes.

Priority 3: Potentially relevant issues – monitor during the development phase at the IMO

- Matters of lower degree of relevance to OCIMF
- Expertise for providing technical contributions to the discussion can be developed or gained as needs be



Industry and governments

Human Factors, Safety & Security

- Safety Leadership & Culture
- Technical standards
- Risk and Incidents
- Policy
- Emerging regulations
- MASS CODE
- Drones
- Safety of Navigation
- Barging
- Terminal and Tankers
- Maritime Safety Threat Assessments
- ISM Code
- STCW amendments

Environment

- GHG
- Air pollution
- Decarbonisation
- ESG & Energy Transition
- VOC
- Shore Power
- Alternative fuels
- UN SDG
- EEDI & EEXI

Offshore

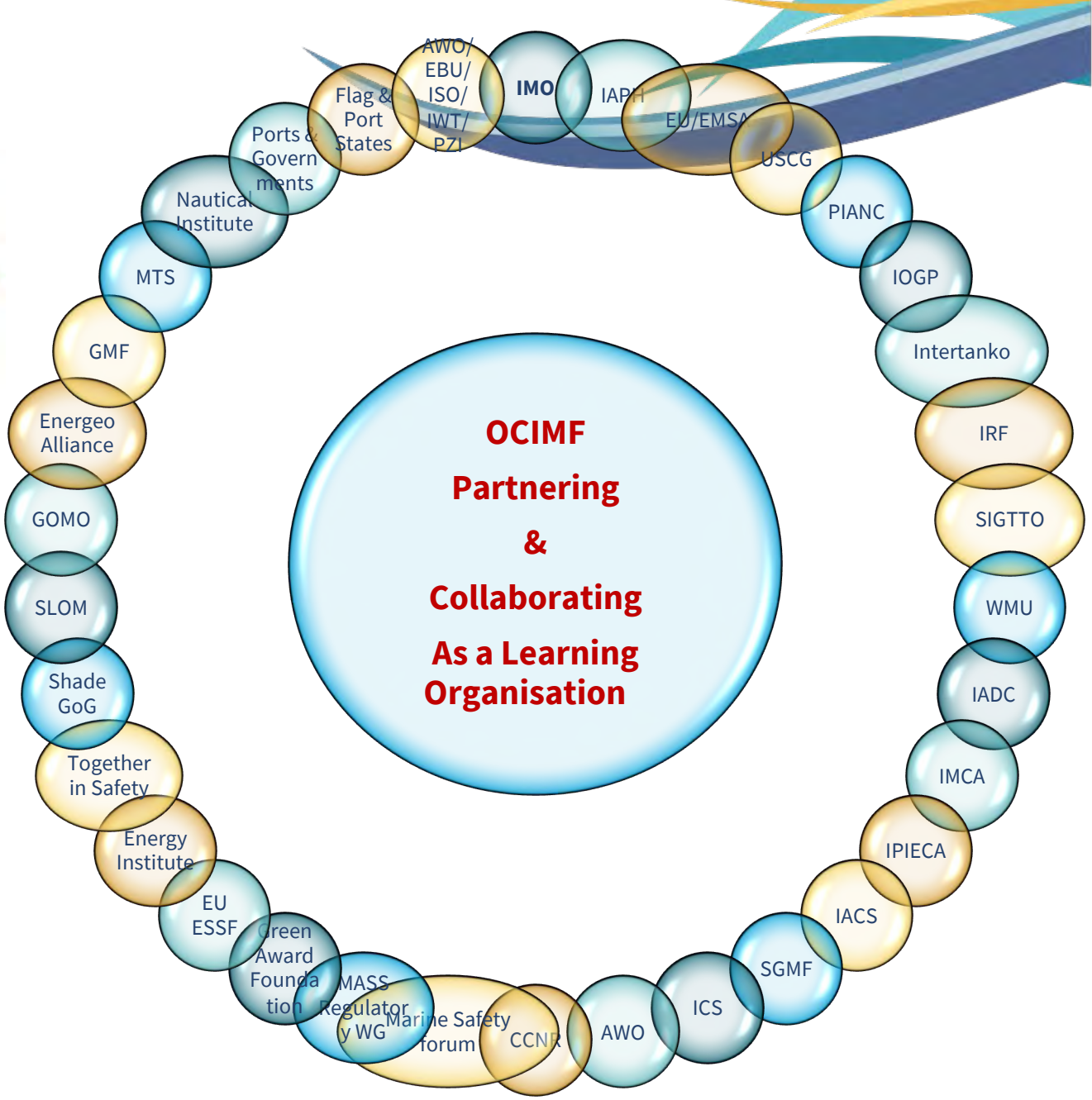
- Floating Systems
- Asset Integrity
- Offshore Lifeboat Safety
- DP
- Seismic vessels
- Station Keeping
- DP - Offshore Vessels
- Offshore Renewables

Programmes

- SIRE
- BIRE
- OVID
- Governance
- Inspections
- IT
- MTIS
- MSA's – TMSA, OVMSA & MTMSA
- Inspector training and accreditation

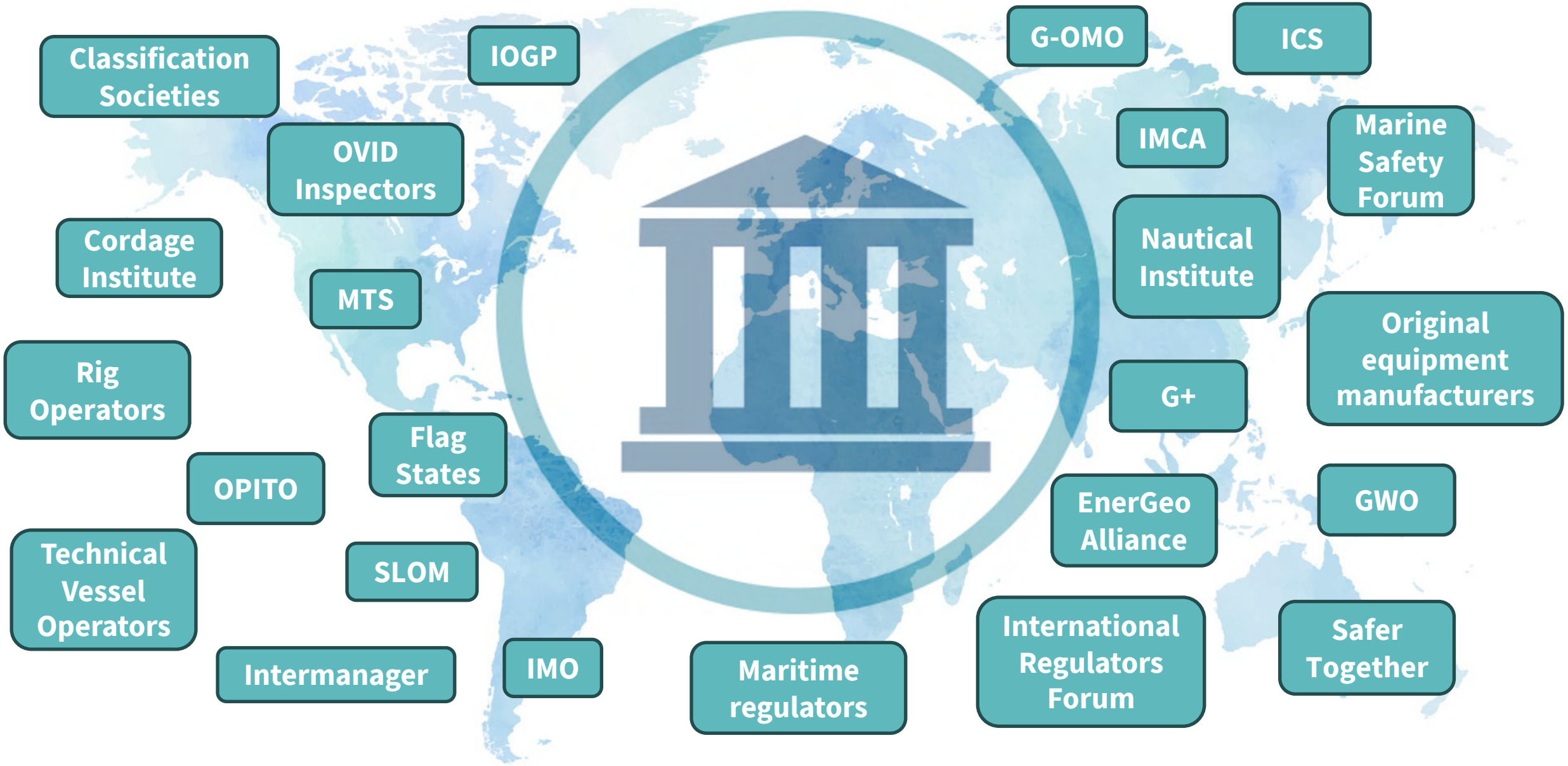
Legal

- IOPC Funds
- Sanctions
- Compliance
- GDPR
- HNS Convention
- Dark/Shadow Fleets



Publications and Advocacy

Offshore – Advocacy



The IMO ambition – Revised GHG Strategy

Today	2030	2040	2050
EEDI, EEXI, CII regulations	total annual GHG emissions reduction from international shipping by at least 20% (striving for 30%)*	At least 70% reduction (striving for 80%)*	Net-zero GHG emissions

Source: BBC

Judicious implementation of short-term measures → Carbon intensity reduction as average across international shipping, by least 40%*

IMO Guidelines: LCA/fuel cells/NH3/H2/ methanol → Uptake of zero/ near-zero GHG emission technologies, fuels and/or energy sources to at least 5%, ideally 10%, of the energy used by international shipping

Source: TMCnet

*compared to 2008 emissions

Mid-to-long term outlook

Well-informed policy

Source: IMO

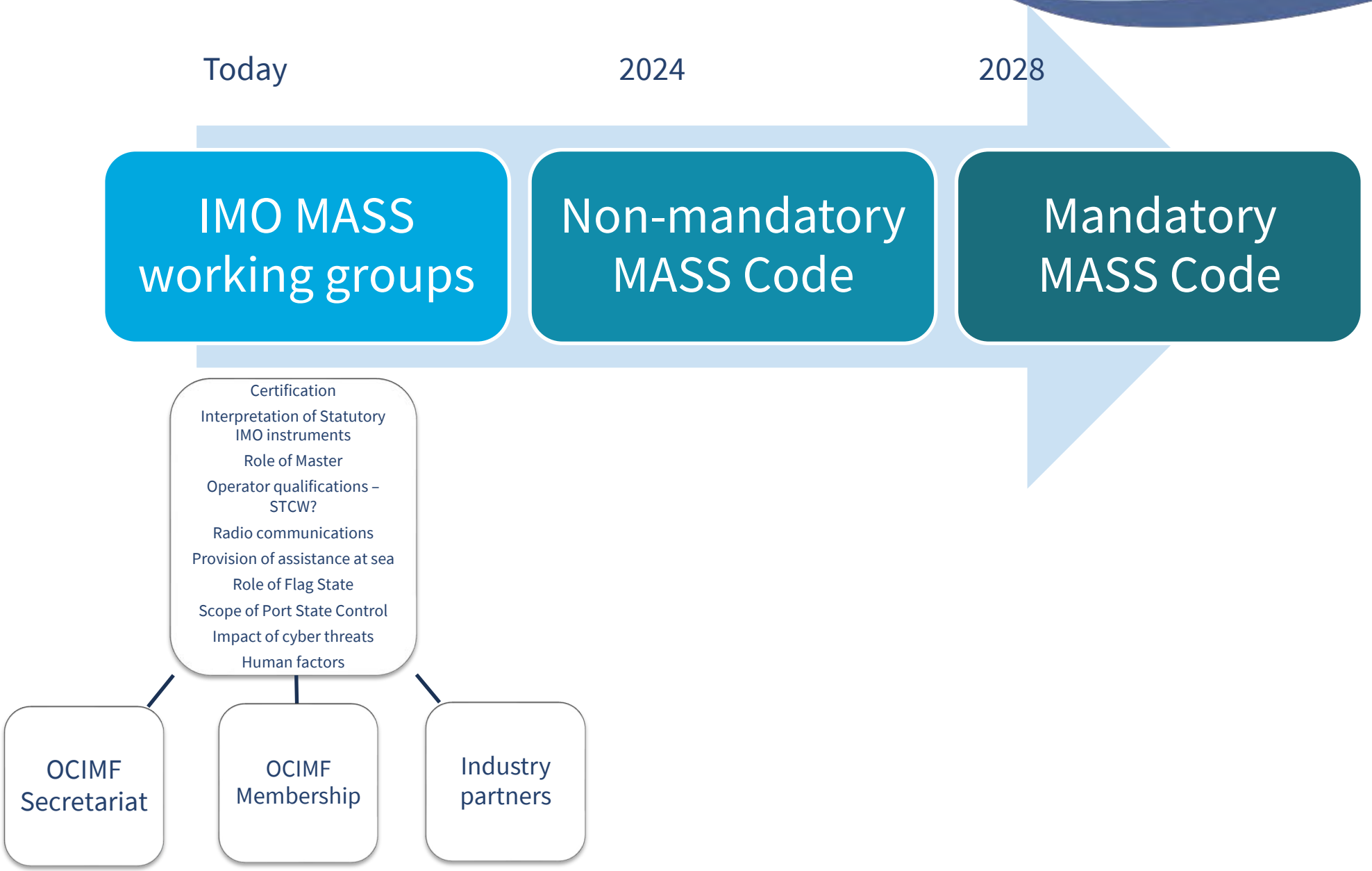
- Assess the impact on nations
- Learning lessons from implementation of short-term measures – CII/EEXI
- Finalisation of a “basket of technical and economic measures” by Spring 2024
- Technical: marine fuel standard
- Economic: market-based pricing mechanism
- Approval of BoM by Spring 2025
- Adoption, followed by entry into force by 2027

Investment

Source: Maersk McKinney Moller Centre

- R&D
- Ship-and shore-side infrastructure supporting new technology and fuels
- Delivering decarbonisation safely – training of all stakeholders

OCIMF MASS engagement



Autonomous Shipping - MASS projects across the globe

Source: Nippon foundation

- **MEGURI 2040 project**, Japan
- 95m Container ship Suzaku successfully undertook 426nm round trip between Ports of Tokyo and Tsu-Matsusaka
- Achieved near fully-autonomous operation supervised by a shore-based “Master”

Source: Kongsberg

- **Autoship project**, Norway – Transition to next gen autonomous ships in EU
- Pallet shuttle barge, intended to operate fully autonomously in the Antwerp inland waterway region

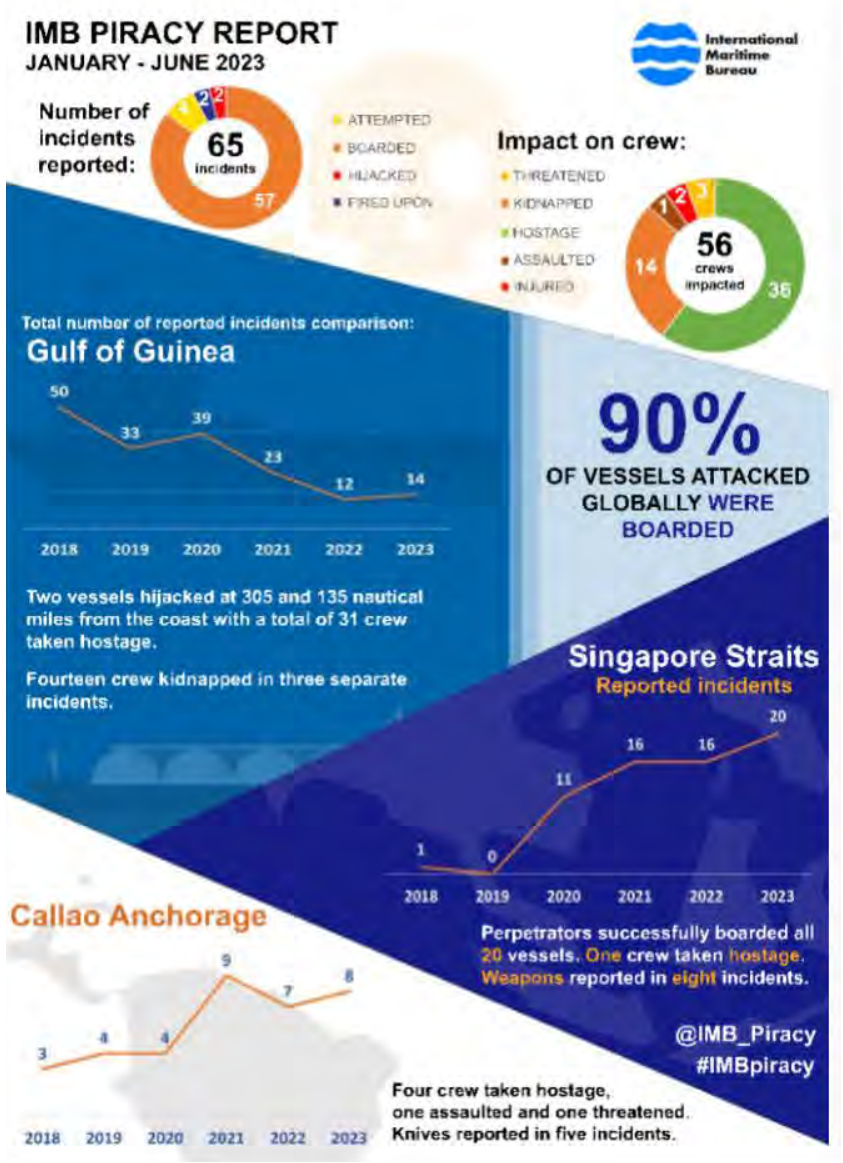
Source: Fugro

- A **Fugro Uncrewed Surface Vessel (USV)**, part of its “Blue Essence” fleet
- Remotely launched and recovered from Fugro ROC in Aberdeen
- Delivered inspections on the structure of the wind turbines – mimicking the role of ROV support vessels

Source: HD Hyundai

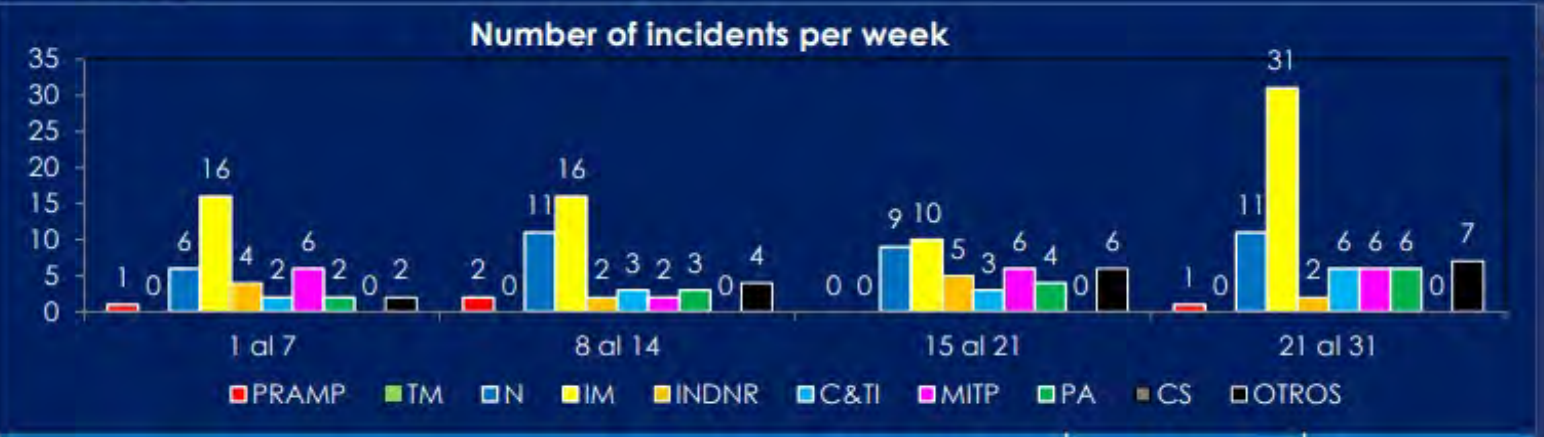
- 180K m^3 **LNG/C Prism Courage** built by Hyundai Heavy Industries
- Travelled part-autonomously from the Gulf of Mexico, via the Panama Canal arriving at LNG terminal in South Chungcheong, Korea

Security


IMB PIRACY REPORT
JANUARY - JUNE 2023
International Maritime Bureau
Number of incidents reported:
65 incidents
57
ATTEMPTED
BOARDED
HIJACKED
FIRED UPON
Impact on crew:
THREATENED
KIDNAPPED
HOSTAGE
ASSAULTED
INJURED
56 crews impacted
14
36
Total number of reported incidents comparison:
Gulf of Guinea
50
33
39
23
12
14
2018
2019
2020
2021
2022
2023
Two vessels hijacked at 305 and 135 nautical miles from the coast with a total of 31 crew taken hostage.
Fourteen crew kidnapped in three separate incidents.
90%
OF VESSELS ATTACKED GLOBALLY WERE BOARDED
Singapore Straits
Reported incidents
1
0
11
16
16
20
2018
2019
2020
2021
2022
2023
Perpetrators successfully boarded all 20 vessels. One crew taken hostage. Weapons reported in eight incidents.
@IMB_Piracy
#IMBpiracy
Callao Anchorage
3
4
4
9
7
8
2018
2019
2020
2021
2022
2023
Four crew taken hostage, one assaulted and one threatened. Knives reported in five incidents.

OCIMF
Guidelines to Harden Vessels
(Second edition 2022)
BMP5
Best Management Practices to Deter Piracy and Enhance Maritime Security in the Red Sea, Gulf of Aden, Indian Ocean and Arabian Sea
SAUDI ARABIA
OMAN
INDIA
ERITREA
YEMEN
DJIBOUTI
SOMALIA
ETHIOPIA
KENYA
TANZANIA
Produced and supported by:
BIMCO
CDI
CLIR
IGP&I
IMCA
INTERCARGO
InterManager
IMEC
INTERTANKO
IPTA
Joint Hull
Joint War Committee
OCIMF
SIGTTO
CONTACT GROUP
OCIMF
Ship Security – Hull Vulnerability Study
(First edition 2019)
THE GUIDELINES ON
CYBER SECURITY ONBOARD SHIPS
Produced and supported by
BIMCO
InterManager
INTERTANKO
OCIMF
dcsa
INTERCARGO
International Chamber of Shipping
SYBAss

Incidents in the IFC-Peru Area of Interest



Categories	Quantity month of June 2023	Total Quantity Year 2023
Pillage, Armed Robbery and Piracy at Sea (PARPS)	4	32
Drug Trafficking (DT)	37	313
Maritime terrorism (MT)	0	0
Maritime Incidents (MI)	73	537
Illegal, Unreported and Unregulated Fishing (IUUF)	13	117
Smuggling and Illegal Traffic (S&IT)	14	123
Irregular Migration and Human Trafficking (IMTP)	20	170
Environmental Protection (EP)	15	92
Cybersecurity (CS)	0	0
Others	19	154
Total	195	1,538

The Reality: Today

Geo politics – Challenging

Strategic:

- US/Iran/Yemen
- Cracks in the GCC

- Changes in industry:
- Regional exploration:

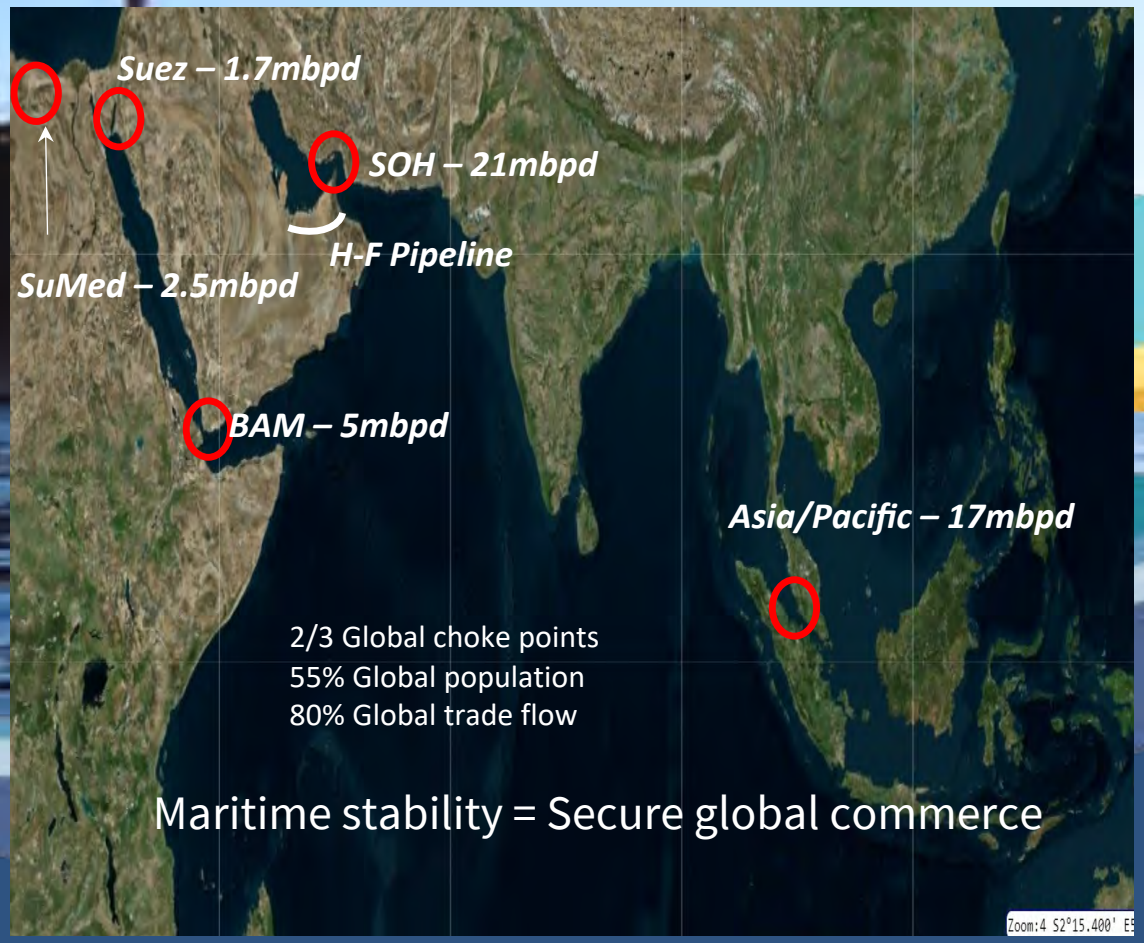
Threat – Dynamic

- Piracy/armed robbery
- Missiles/mines/WBIED

Combined Industry/military mission

Safety of merchant & naval mariners

Region - Important



Collaboration – essential

- Joint Working.
- SHADE/UKMTO relevant.

Information Sharing

- Informs Us

Exercises – IMX

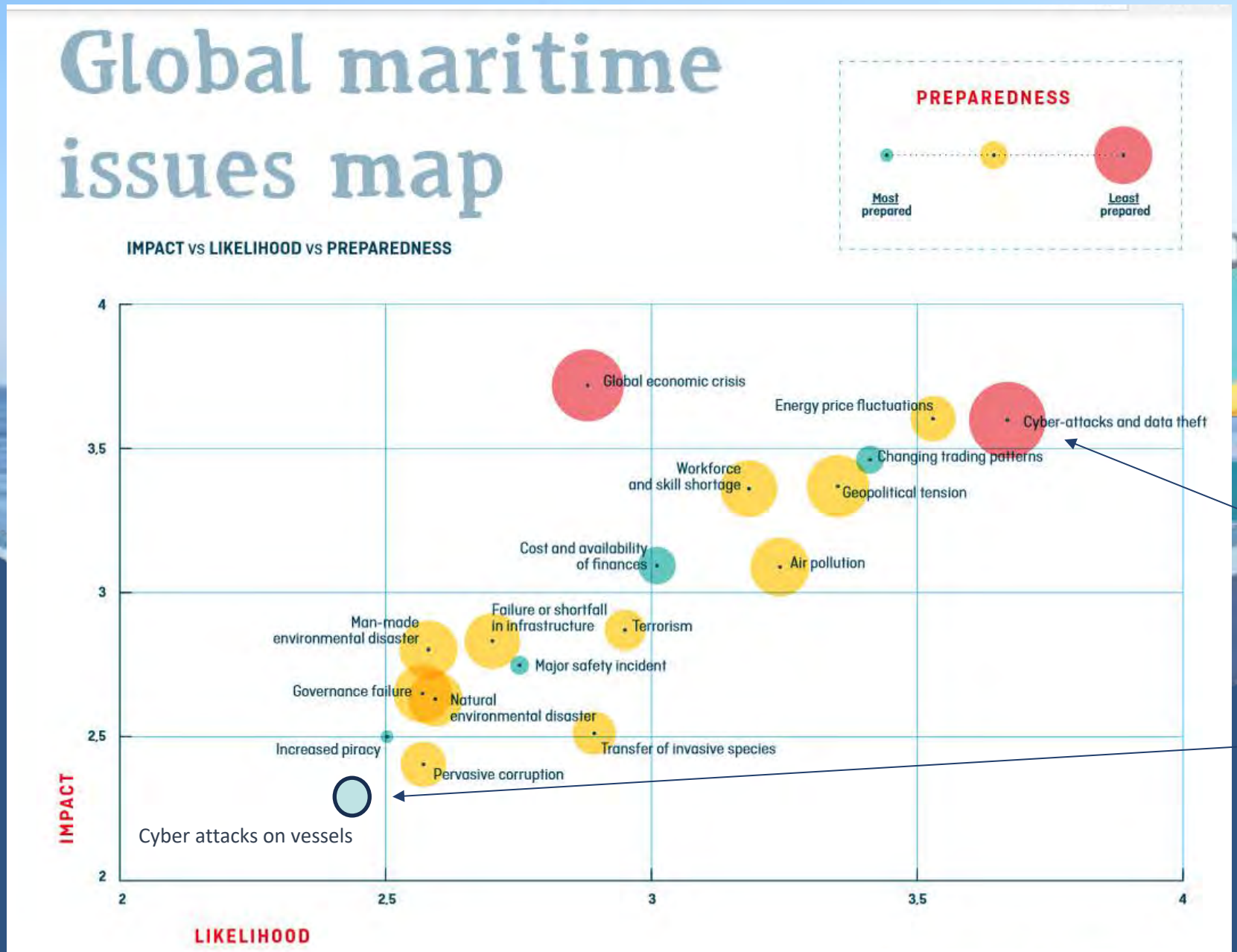
- Prepares Us

Keeping Mariners Safe

Industry Reporting
Naval Intelligence
Local & Internat'l Gov't Support

Reliable Info Dissemination
Timely Warnings
Robust Response

Illustrative purposes only



The dilemma:

- Cyber security **is** important at Board level but…..
- Assessments are presented on the basis of the overall supply chain and;
- Not specifically for vessels

Publications and Advocacy

Offshore – Member collaboration

Focus activity (underway/completed)

Management of Lifesaving Appliances on Fixed/Floating Installations

Management of Attending Vessels

Renewable Marine Operations

Focus activity (planned)

FPSO Asset Integrity and Assurance

DP Assurance

Publications and Advocacy

Offshore – Publications

Updates (in progress)

Guidelines for the Purchasing and Testing of SPM Hawsers ***[2000]***

Guide to Manufacturing and Purchasing Hoses for Offshore Moorings (GMPHOM) ***[2009]***

Preliminary Findings for Best Practice Management of Survival Craft on Fixed/Floating Offshore Installations

- Information paper [NEW]

Updates (planned)

Competence Assurance Guidelines for F(P)SO's ***[2008]***

Overview of work with best practices

Publications & Advocacy

IMO Engagement

Programmes

Nautical EG

- Revise Anchoring Systems guide
- ***Support*** *Ship to Ship Transfer rewrite –* ***STS EG****
- *D&A Paper –* ***nearly completed***

Engineering EG

- Review Guide for Implementation of Sulphur Oxide Exhaust Gas Cleaning
- IMO Alternative Fuels WG – support **EFC**
- Fire Prevention on Engine Rooms work stream
- Industry's incidents review

Floating Systems EG

- **New IP** on Offshore Lifeboat and LSA Operations
- **FPSO Asset Integrity**
- Publications review

Offshore Vessel EG

- DP Assurance
- Management of attending Offshore vessels in the Safety Zone.
- Development of regulatory standards for MASS Vessels
- Updating OVIQ

Barges EG

- **ISGINTT2** – Delivered
- **Major Project** – New Flagship Publication – Global Barges Guide
- IP on SMART Shipping in EU
- IP on open loading – SCA

Ship to Shore EG

- Advocate MTIS within regions – ongoing*
- **Review** MTMSA

Structures EG

- ***Support*** Onshore Power Supply WG –**EFC**
- ***Support*** Emissions Control Tech. WG – **EFC**
- ***Support*** FSEG in development of Mooring Hawser guidelines - **FSEG**
- ***IMO WG*** on the Reduction of VOCs
- Industry's incidents review
- ***8 x Publications*** with PIANC

Ship to Ship EG

- **Major Project** – Revise STS Transfer Guide

Environmental FC

- **New** IP on Onshore Power Supply Guide – ongoing
- **New** IP on Risks Associated with Engine Power Limitation Guide - ongoing
- **New** Emissions Capture and Control Guide - ongoing
- IMO CG on LCA of marine fuels
- IMO WG on the Reduction of VOCs
- Map of external organisations

Human Factors FC

- **IMO** - Safe Workplace, Culture, Bullying and Harassment
- **Publications**: HF Checklist, Approach Paper & MSA revision
- **WMU MoU** - SafeMode – Toolkit and Advocacy
- **Accident** and Incident Investigations methodology –
- **HEIG** – Enclosed Space Entry *monitoring

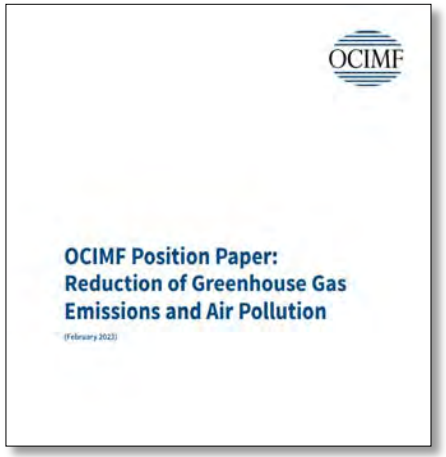
Maritime Security FC

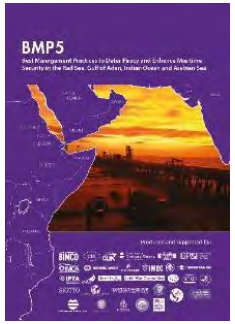
- Maritime Industry Security Threat Assessments
- Cyber Security Publication (ITEG-Programmes)
- **Forthcoming** BMP review
- **New** Drone study

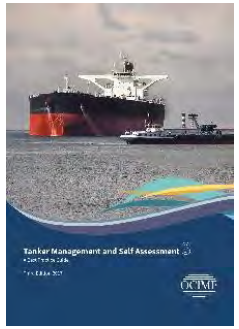
Member collaboration

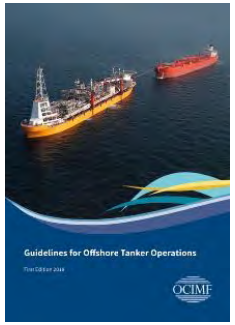
Publications & Advocacy

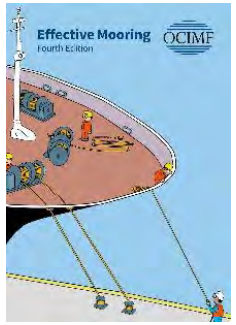
https://www.ocimf.org/publications/information-papers

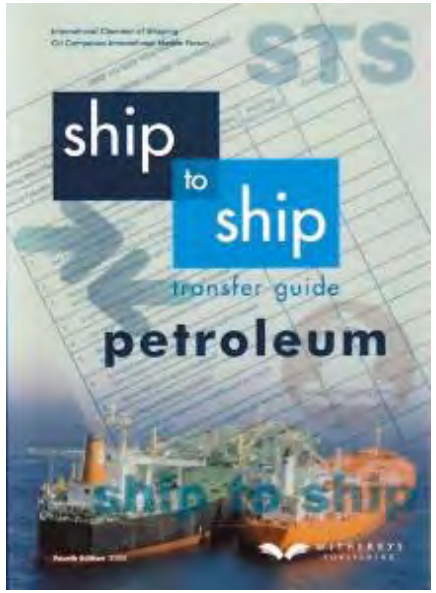


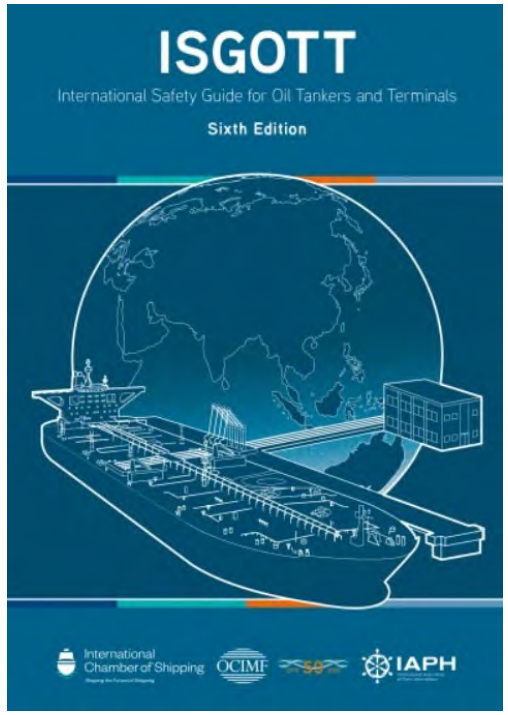


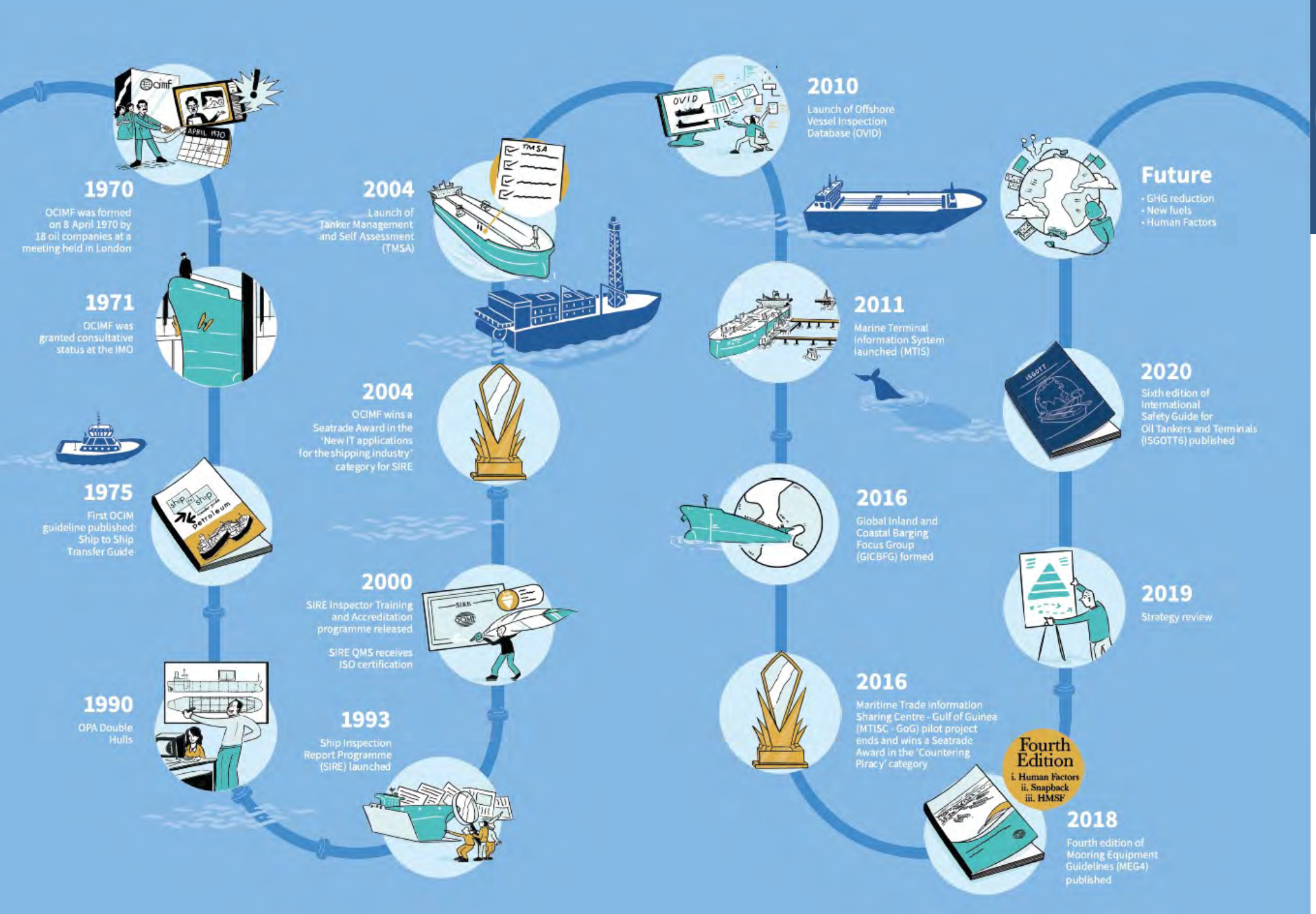











1970
OCIMF was formed on 8 April 1970 by 18 oil companies at a meeting held in London
APRIL 1970
1971
OCIMF was granted consultative status at the IMO
1975
First OCIM guideline published: Ship to Ship Transfer Guide
ship to ship
petroleum
1990
OPA Double Hulls
1993
Ship Inspection Report Programme (SIRE) launched
2000
SIRE Inspector Training and Accreditation programme released
SIRE QMS receives ISO certification
SIRE
2004
OCIMF wins a Seatrade Award in the 'New IT applications for the shipping industry' category for SIRE
2004
Launch of Tanker Management and Self Assessment (TMSA)
TMSA
2010
Launch of Offshore Vessel Inspection Database (OVID)
OVID
2011
Marine Terminal Information System launched (MTIS)
2016
Global Inland and Coastal Barging Focus Group (GICBFG) formed
2016
Maritime Trade Information Sharing Centre - Gulf of Guinea (MTISC - GoG) pilot project ends and wins a Seatrade Award in the 'Countering Piracy' category
2018
Fourth edition of Mooring Equipment Guidelines (MEG4) published
Fourth Edition
i. Human Factors
ii. Snapback
iii. HMSF
2019
Strategy review
2020
Sixth edition of International Safety Guide for Oil Tankers and Terminals (ISGOTT6) published
ISGOTT
Future
• GHG reduction
• New fuels
• Human Factors

OCIMF

Security and Barges

Erik Frank

Maritime and Inland Operations (Raízen)

OCIMF

SEGURANÇA NOS RIOS
Operações RAÍZEN

XIX SLOM RJ - Set/2023

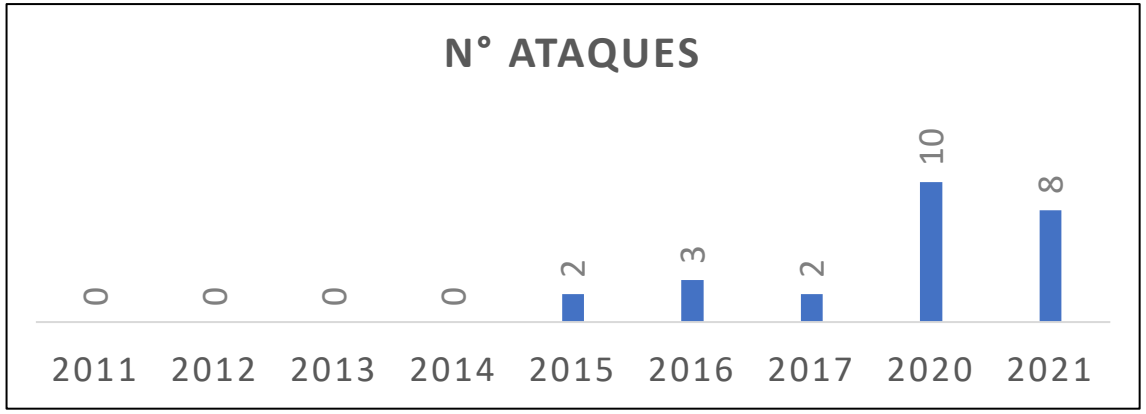
Erik.Frank@raizen.com

Histórico

Tem aumentado significativamente a navegação nos Rios da Região Norte para o escoamento de matéria-prima e produtos acabados, fomentando o transporte de cargas em balsas entre os Estados do Pará, Rondônia e Amazonas. Somente no Amazonas, há uma concentração de 61 portos e as principais rotas passam pelos Rios Amazona-Solimões, Negro, Tocantins e Madeira. **Com isso, houve também o aumento dos casos de roubos de carga na região.**

Área com Maiores Incidências – Últimos 2 anos

Trecho	Distâncias (km)	Navegação (horas)
Manaus x Itacoatiara	120	14
Itacoatira x Parintins	255	32
Parintins x Santarém	279	35
Santarém x Macapá	560	70
Macapá x Belém	320	40
Manaus x Porto Velho	1239	216
Itacoatiara x Porto Velho	1044	192



Localidade	Volume Estimado (L)	Quantidade de Eventos	Média/Evento	Tipo de Produto
Itacoatiara - Am	653.158	7	93.308	Diesel
Porto Veho - RO	58.000	1	58.000	Gasolina
Macapá - AP	29.000	1	29.000	Gasolina
Belém - PA	43.000	1	43.000	Gasolina
Manicoré - AM	229.000	2	114.500	Gasolina e Diesel
Manaus - AM	860.000	7	122.857	Gasolina e Diesel
Santarém - PA	640.000	3	213.333	Gasolina e Diesel
Parintins - AM	520.000	3	173.333	Gasolina e Diesel
Total	3.032.158	25	121.286	

- ✓ **Distância percorrida de Porto Velho até Belém de 1800km**
- ✓ **As principais cidades do Rio Amazonas indicam um percentual de 89% das incidências.**

- ✓ **Entre os anos de 2011 e 2021 foram registrados o total de 25 ataques**

Nota:
Dados retirados do "Relatório de Ataques Piratas" emitido pelo SINDARMA
Não houve indicação de dados entre os anos de 2011 e 2015

Ataques nos últimos anos – Dinâmica e Consequência

- ✓ **Dinâmica dos ataques:** grupos fortemente armados, em algumas situações caracterizados com roupas militares, utilizam de pequenas embarcações rápidas para abordagem (voadeiras e lanchas) e embarcações de apoio (balsas) de médio porte para o transbordo do produto.

- ✓ **Modo da Ação para Transbordo:** Nos primeiros casos acontecidos, o roubo era feito por tambores em volumes menores. Hoje eles atracam a contrabordo da balsa carregada uma balsa pequena ou embarcação regional, iniciam o bombeio com motobombas com vazão máxima de 50m³/hora, chegando a roubar cerca de 600.000L . Temos casos de roubo da balsa por completo e durante o percurso segue monitorando as embarcações que realizam o cruzamento na hidrovia.

- ✓ **Tempo médio de Operação:** Toda a abordagem demora em média 24 horas para grandes volumes (160m³), tendo casos que já chegaram a demorar quase 01 semana.

- ✓ **Questão Comportamental:** Utilizam de bastante agressividade, torturando, ameaçando de morte e/ou agredindo fisicamente os tripulantes, além de manter toda a tripulação e embarcação sequestrada durante o ataque.

- ✓ **Destinação Provável**: Venda para garimpo ilegal, abastecimento de comunidades ribeirinhas, venda para grileiros em apoio ao desmatamento.

***Nota: Todas as informações foram geradas através de históricos dos casos ocorridos nas regiões**

Cronologia das Ações

Principais ações tomadas

- Criação de Grupo de Trabalho no IBP.
- Suporte ao ICL para desenvolvimento do Manual de Boas Práticas
- Implementação do Protocolo
- Interface com Órgãos de Segurança Pública e realização de Workshops

Set/21 – GT IBP – Operações Aquaviárias

Nov/21 – GT IBP Específico Roubo de Carga

Dez/21 – Ofício do SINDARMA

Mai/21 – Elaboração do Manual de Boas Práticas - ICL

Jul/21 – REUNIÕES E GMUD COM OS EBNS

Mai/22 – Workshop Segurança Manaus

Jun/22 – Workshop Segurança Porto Velho

Ago/23 – Workshop Segurança Brasília

Influência no Mercado

Reuniões com Instituto Combustível Legal – ICL e Instituto Brasileiro de Petróleo e Gás – IBP

Com base na experiência das empresas e nos procedimentos internacionais, foi elaborado o **MANUAL DE BOAS PRÁTICAS PARA PROTEÇÃO DE COMBOIOS FLUVIAIS QUE TRASPORTAM COMBUSTÍVEIS**

- Ações Gerais e Requisitos Fundamentais
- Avaliação de Risco
- Recomendações para evitar criminosos a bordo
- Avaliação e implementação de Circuito Fechado de Televisão – CFTV / CCTV
- Avaliação e implementação de segunda linha de defensa nas embarcações
- Vigilância Orgânica
- Navegação em Área de Risco
- Recomendação de ações a serem tomadas com criminosos a bordo
- Gestão e Facilidades de Bordo

Eventos no mercado – PÓS MBP

Após a divulgação do manual de boas práticas e adoção do protocolo, houve redução significativas dos eventos.

EVENTOS SEM ESCOLTA 2022

Mês	EBN	Volume (litros)	Rota	Distribuidora	Proximidade
Janeiro	Socorro Carvalho	480.000	Manaus x Porto Velho	VIBRA	Nova Olinda - AM
Fevereiro	NaveAmazonia	520.000	Manaus x Porto Velho	ATEM	Borba - AM
Maio	ED Lopes	450.000	Manaus x Porto Velho	VIBRA	Borba - AM
Maio	CNA**	0	Manaus x Porto Velho	RAÍZEN	Itacoatiara-AM
Junho	Rio Negro	150.000	Belém x Macapá	VIBRA	Breves-PA
Agosto	Navecunha	100.000	Manaus x Porto Velho	VIBRA	Porto Velho-RO
Agosto	Trevo	500.000	Manaus x Macapá	IPIRANGA	Borba - AM
		2.200.000			

EVENTOS COM ESCOLTA 2022

Mês	EBN	Volume (litros)	Rota	Distribuidora	Proximidade
Maio	Transdourada*	0	Manaus x Macapá	VIBRA	Itacoatiara-AM
Julho	Navecunha	0	Manaus x Iquitos (PER)	PERUPETRO	Tefé-AM
Julho	NaveAmazonia	0	Manaus x Porto Velho	ATEM	Itacoatiara-AM
Setembro	Oziel	0	Manaus x Porto Velho	VIBRA	Manaus - AM
		0			

Influenciando Mercado

O acompanhamento junto as entidades e órgãos públicos de segurança tem sido uma marca pós implementação do processo.

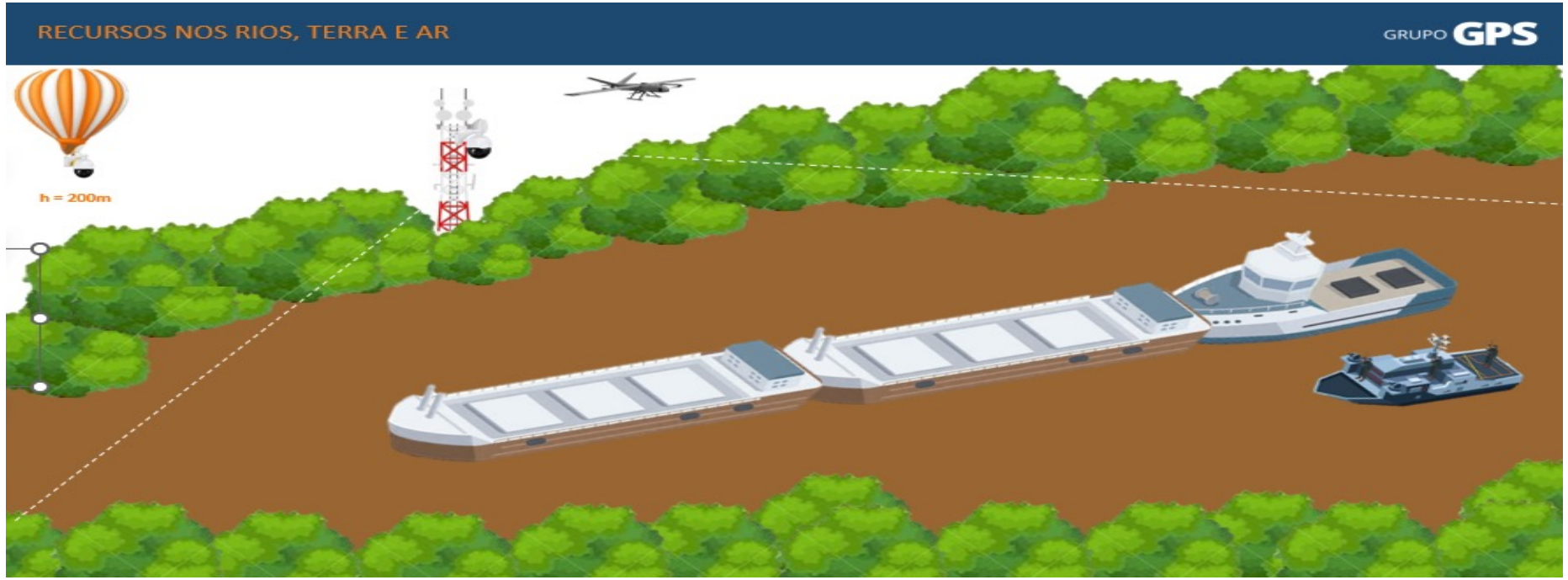
ICL + IBP

- Workshop de Segurança Fluvial
  - Workshop Manaus (Mai/22)
  - Workshop Porto Velho (Jun/22)
  - Evento Brasília (Ago/23)
- Reuniões mensais com outras Distribuidoras
  - IBP, ICL, Raízen, Transpetro, Ipiranga e Vibra
- Grupo de Trabalho de Operações Aquaviárias
- Programa ATAC ICL

Outros

- Reunião com Sindicato dos Armadores
  - Sindarma - Amazonas
  - Sindarpa - Pará
- Comitê de Segurança da Marinha do Brasil
  - Reuniões bimestrais

Projeto Monitoramento dos Rios (TBD)



PROJETO EM PARCERIA COM GRUPO GPS

- Bases de apoio nos trechos do baixo Amazonas e Rio Madeira
- Comunicação Satelital
- Embarcações de apoio para pronta resposta
- Torres de monitoramento
- Efetivo para repressão (vigilantes armados)
- Drones e Balões de monitoramento dos Rios
- Investimento em segurança de ~R$30MM/Ano

raízen

energia que mobiliza

Vessel Inspections and Inspector Training

Ajay Gour

Inspector Training and Accreditation Manager

OCIMF's Vision and Mission Statement

Vision

*"A global marine industry that causes no harm to **people** or the **environment**."*

Mission

"To lead the global marine industry in the promotion of safe and environmentally responsible transportation of crude oil, oil products, petrochemicals and gas, and to drive the same values in the management of related offshore marine operations.

We do this by developing best practices in the design, construction and safe operation of tankers, barges and offshore vessels and their interfaces with terminals and considering human factors in everything we do."

1. *SIRE*
    1. *Category – 1*
    2. *Category - 3*
2. *OVID*
3. *MSA*
    1. *TMSA*
    2. *OVMSA*
    3. *MTMSA*
4. *MTIS – Marine Terminal Information System*

a. *All programmes are directed towards these two aims:*
    i. *…no harm to **people** or the **environment.***
b. *OCIMF Statistics*
    i. *Number of inspections worldwide*
    ii. *Inspectors*
c. *Questionnaires*
    i. *Developed by the members for the members.*
    ii. *Cover all areas of ship operations and introducing human factors.*
    iii. *Specific to ship-type and operation*
d. *Industry performance has improved*

Vessel Inspection Questionnaires

SIRE (Category-1) Questionnaire

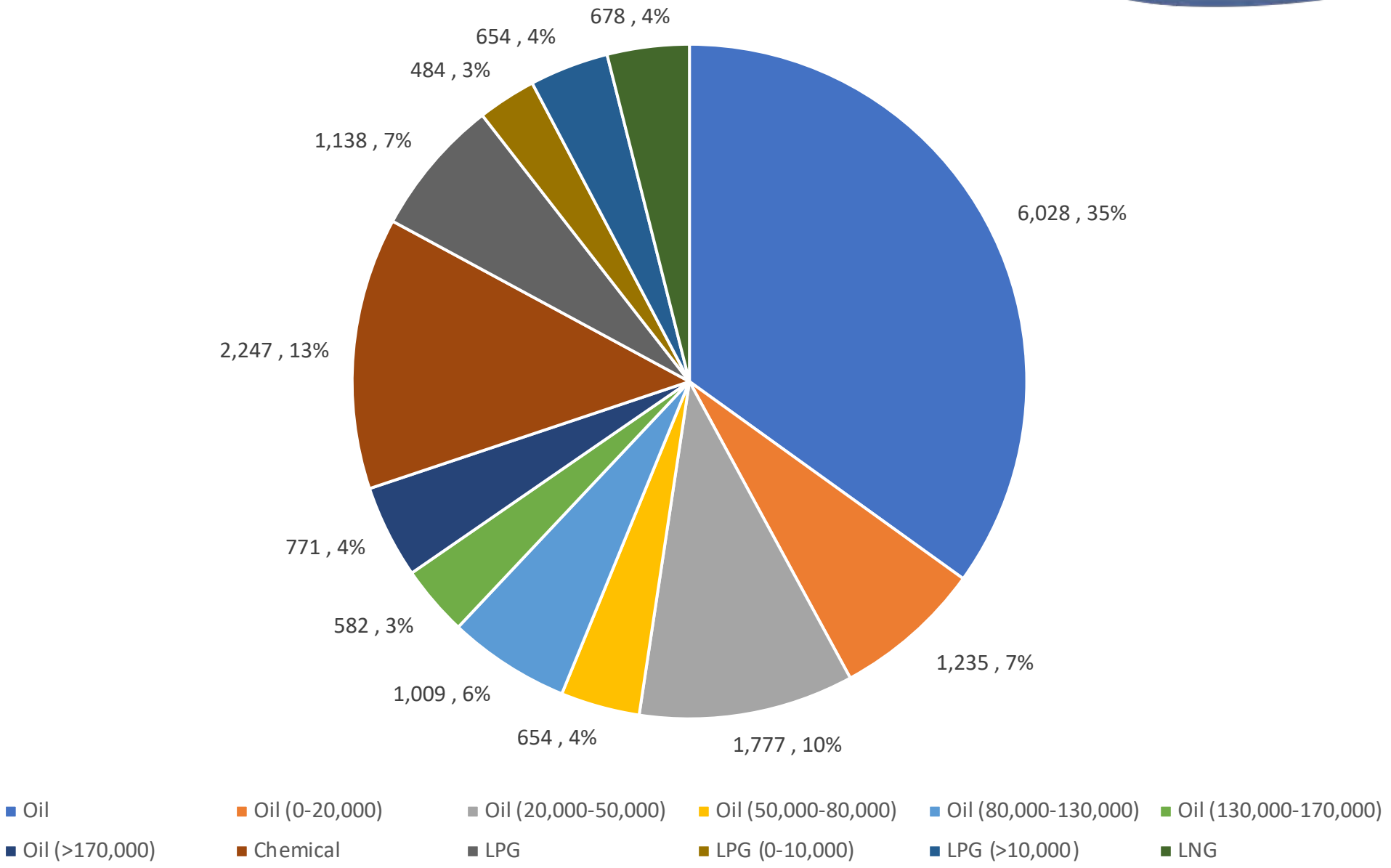
- *Crew Management*
- *Navigation and Communications*
- *Safety Management*
- *Pollution Prevention*
- *Maritime Security*
- *Cargo and Ballast Systems*
- *Mooring*
- *Engine and Steering Compartments*
- *General Appearance and Condition*
- *Ice Operations*

SIRE (Category-3) Questionnaires

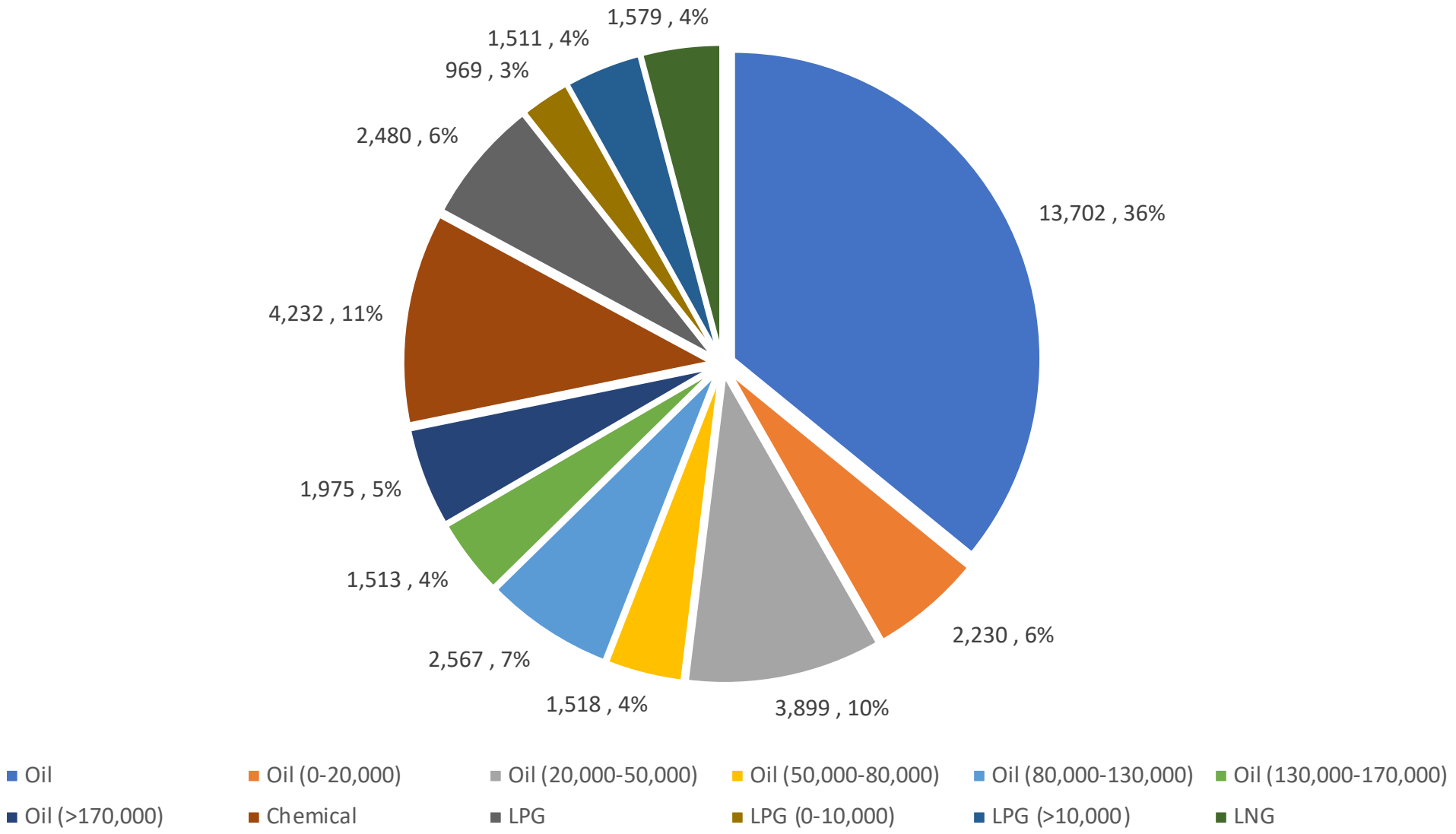
Regional

- *North America*
- *South America*
- *Europe*

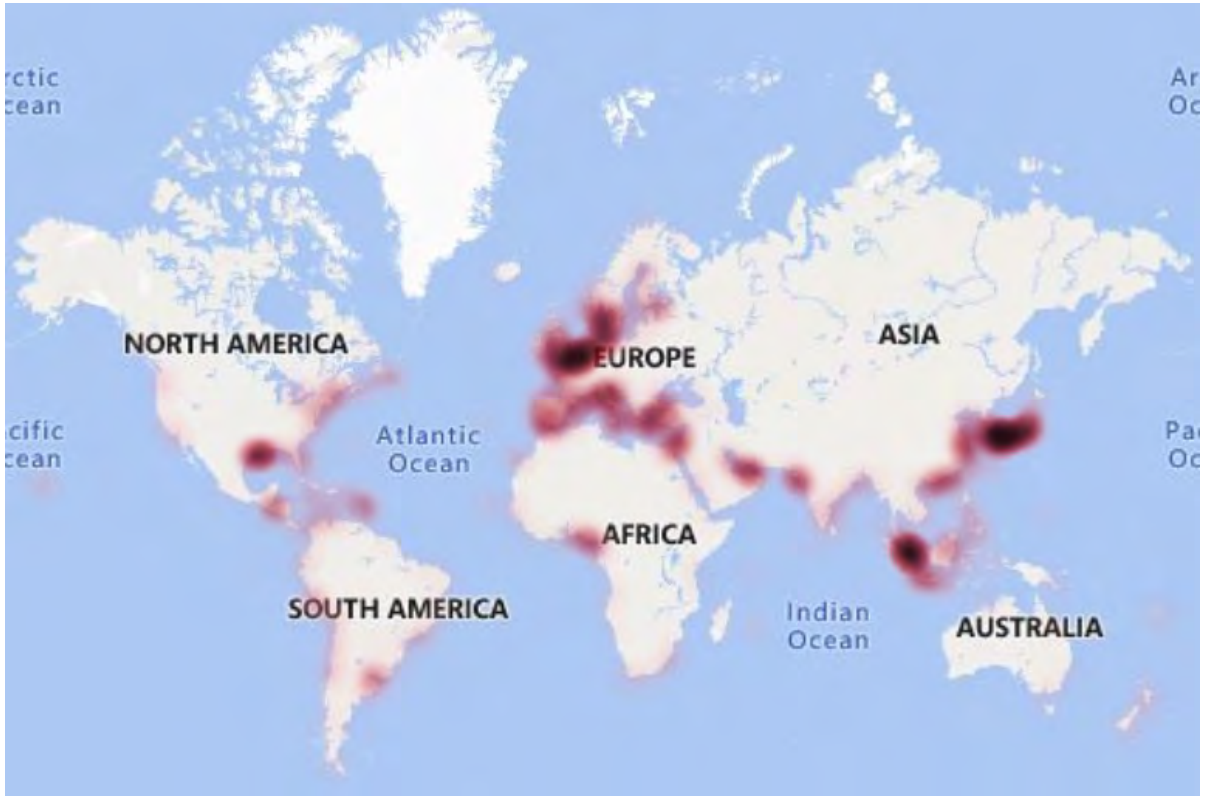
Vessels (Category-1)



Inspections (Category-1)

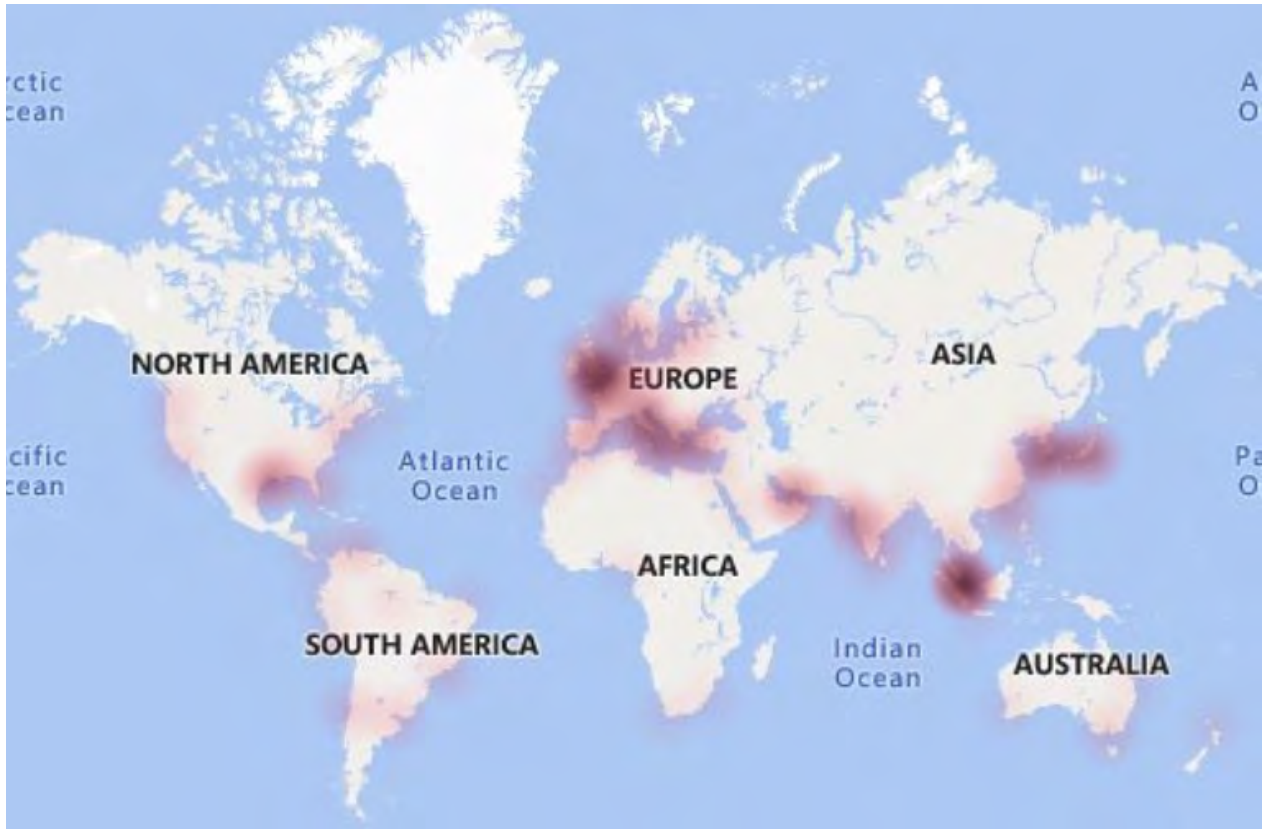


Cat-1 Inspections and Inspector locations.

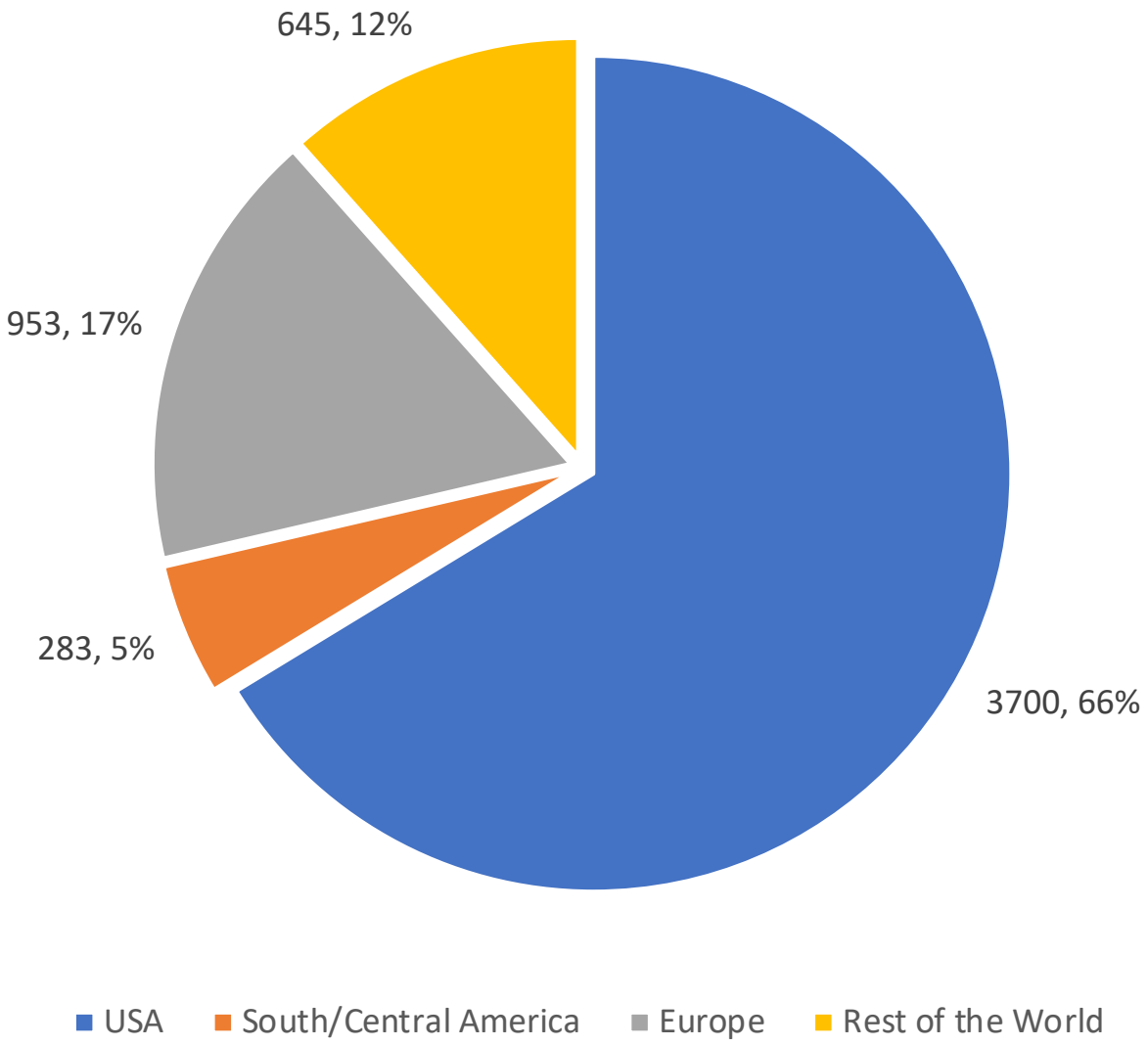


Vessel Inspection density

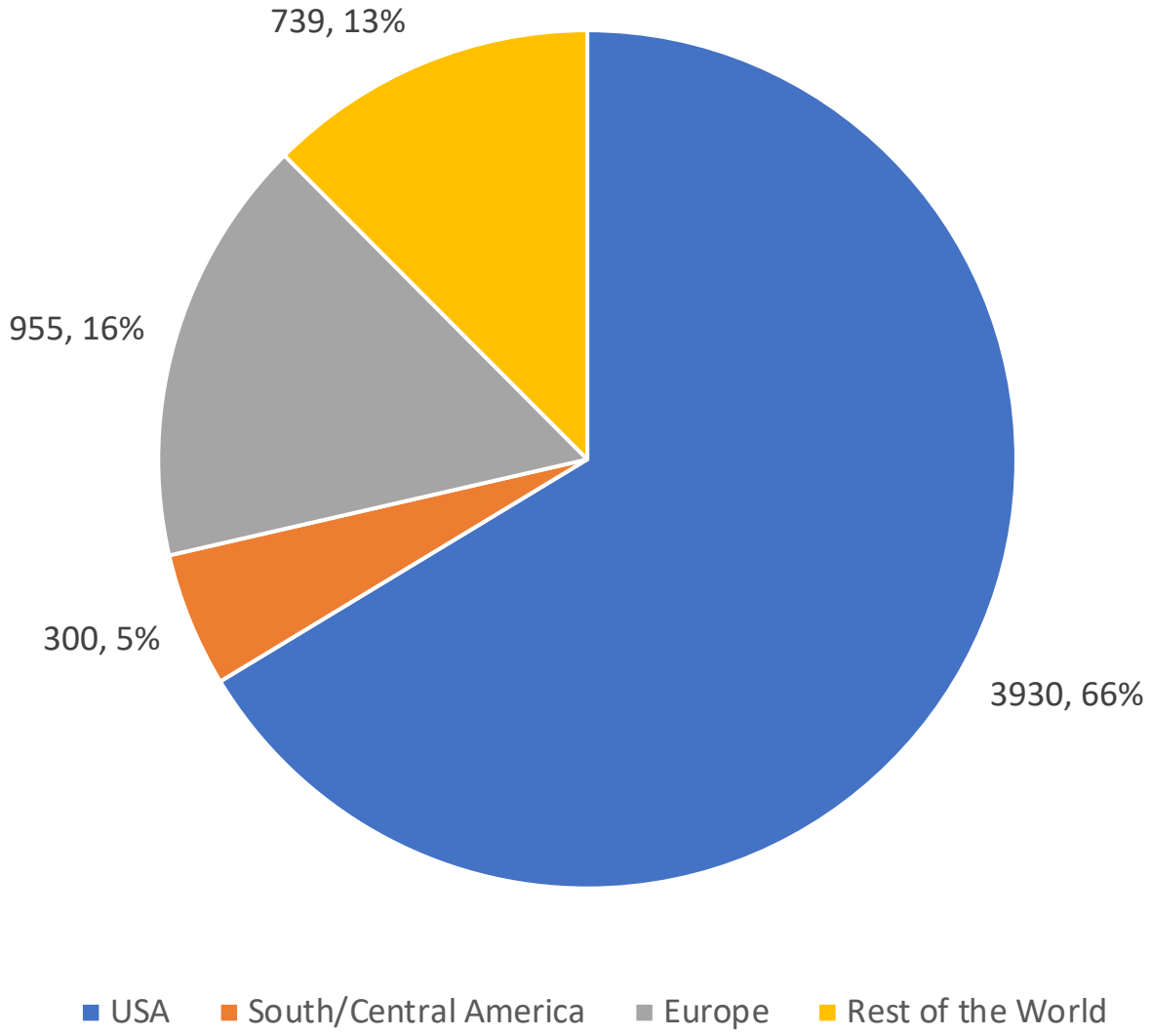
Cat-1 Inspector location density



BARGES (Category-3)



BARGE Inspections

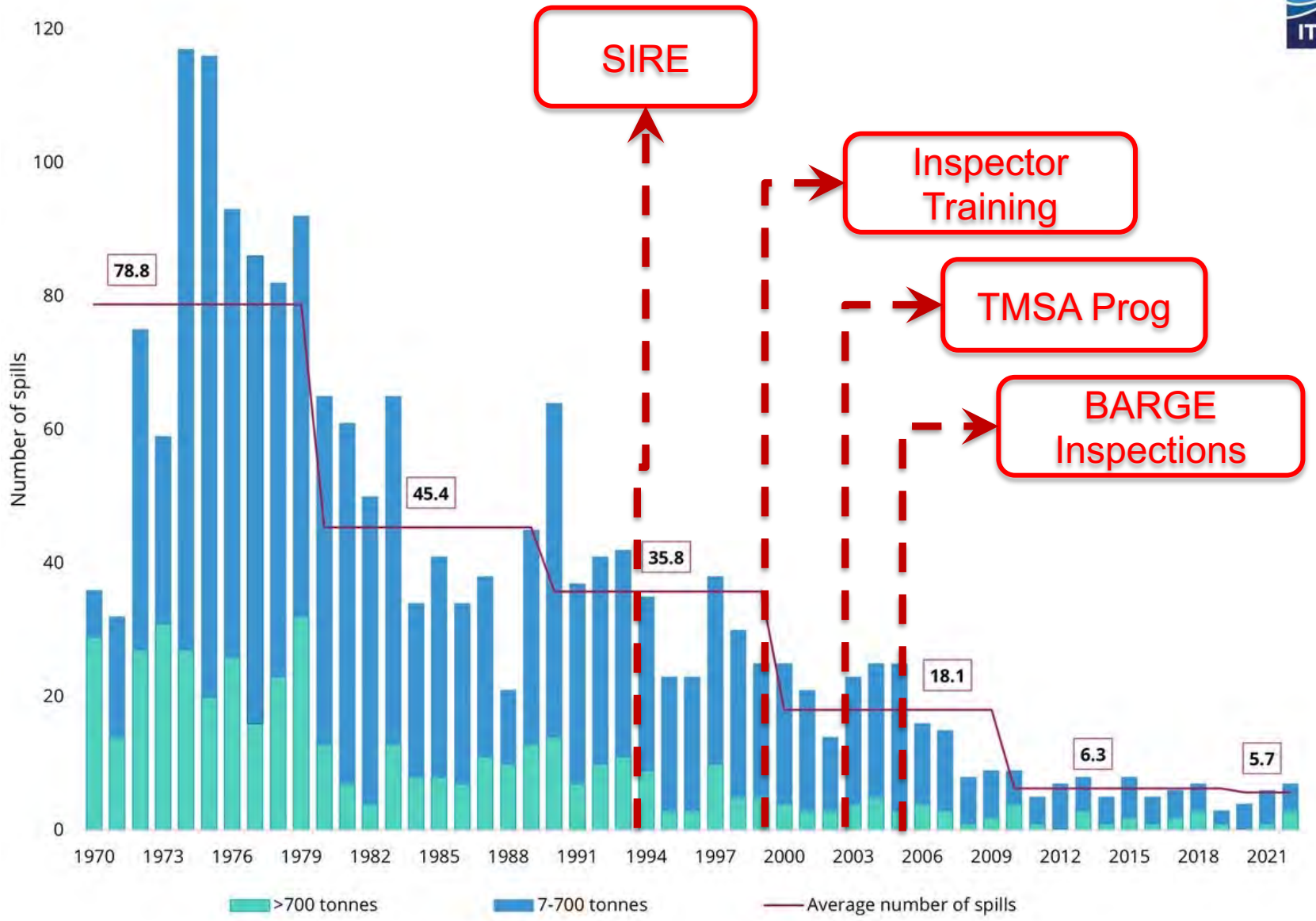


Cat-3 (Barge) Inspections and Inspector locations.

Cat-3 (Barge) Inspection density

Cat-3 (Barge) Inspector location density

Context – Overview of OCIMF initiatives and Industry Performance



Q&A Session

OCIMF

Industry feedback session

Please let us know your thoughts

A voice for safety

OCIMF

1970 50 2020

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