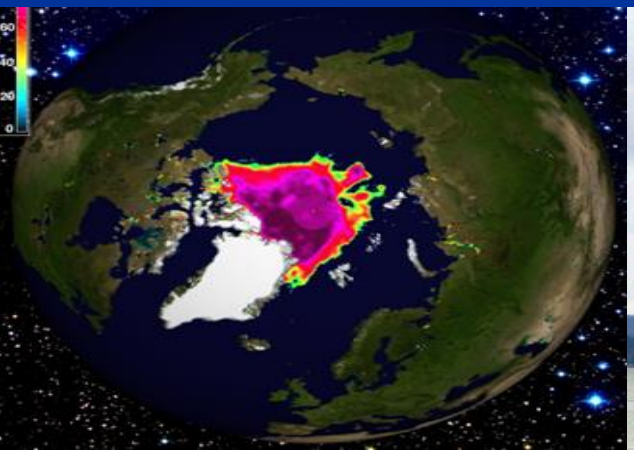
IMO climate actions and technical cooperation

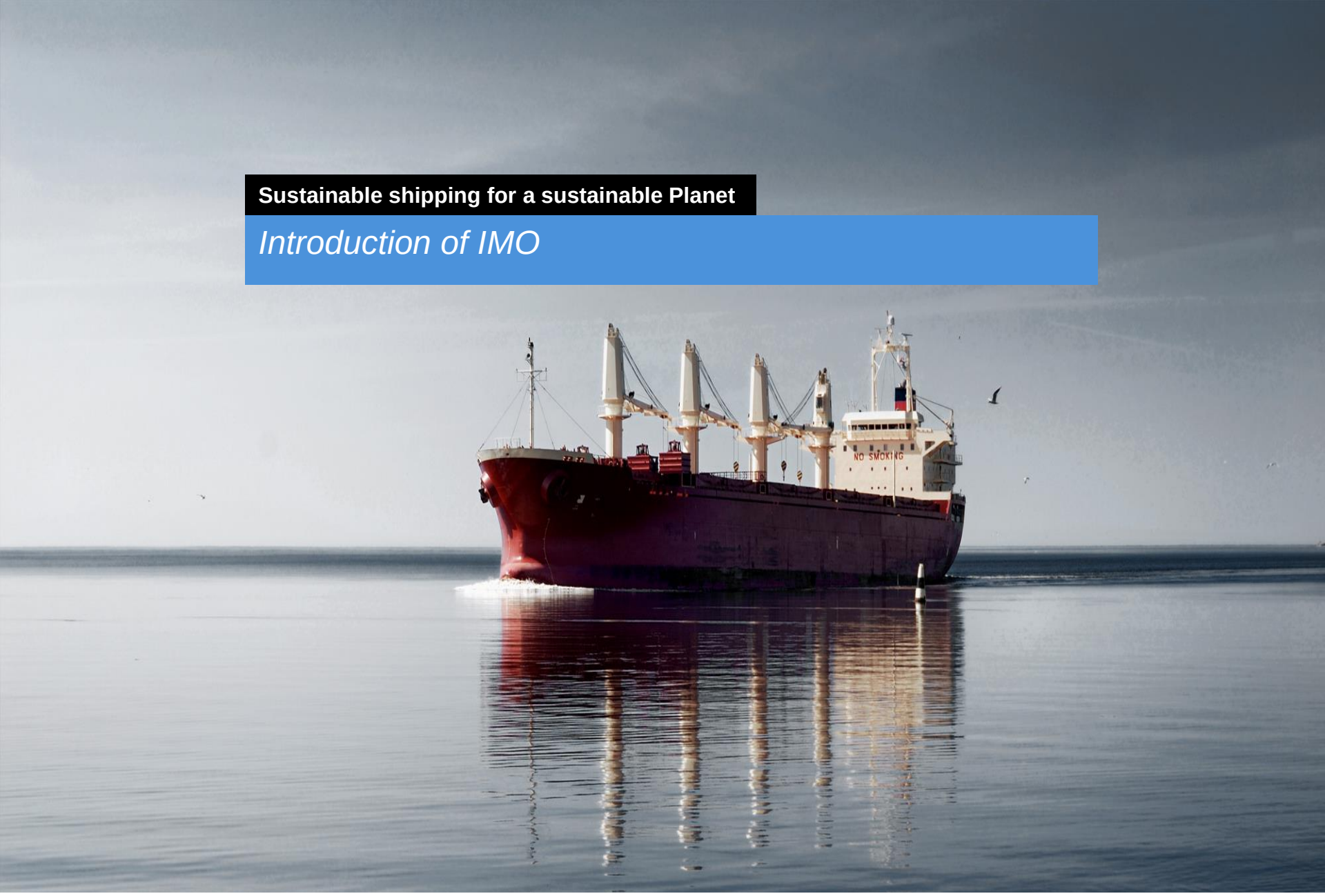
Regional Knowledge Sharing Workshop on

Port Greening and Decarbonization

27 July 2023



INTERNATIONAL MARITIME ORGANIZATION



Sustainable shipping for a sustainable Planet

Introduction of IMO

International Maritime Organization (IMO): a global regulator for a global industry

United Nations Specialized Agency mandated to define a **global regulatory framework** to ensure safe, secure and efficient shipping on cleaner oceans

Established in 1948. Headquartered in London

175 Member States, 3 associated members, 143 observer organizations (IGOs and NGOs)

IMO regulates > 50,000 ships trading worldwide

IMO's instruments contain **binding obligations**, which are **enforced globally by flag and port States**

Safe, secure and efficient shipping on cleaner oceans

Sustainable shipping for a sustainable Planet

2023 IMO GHG Strategy

2023 IMO Strategy on Reduction of GHG Emissions from Ships

Vision

IMO remains committed to reducing GHG emissions from international shipping and, as a matter of urgency, aims to phase them out as soon as possible, while promoting, in the context of this Strategy, a just and equitable transition.

Levels of ambition

Levels of ambition directing the 2023 IMO GHG Strategy are as follows:

.1 ***carbon intensity of the ship to decline through further improvement of the energy efficiency for new ships***

to review with the aim of strengthening the energy efficiency design requirements for ships;

.2 ***carbon intensity of international shipping to decline***

to reduce CO_2 emissions per transport work, as an average across international shipping, by at least 40% by 2030, compared to 2008;

.3 ***uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to increase***

uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to represent at least 5%, striving for 10%, of the energy used by international shipping by 2030; and

.4 ***GHG emissions from international shipping to reach net zero***

to peak GHG emissions from international shipping as soon as possible and to reach net-zero GHG emissions by or around, i.e., close to, 2050, taking into account different national circumstances, whilst pursuing efforts towards phasing them out as called for in the Vision consistent with the long-term temperature goal set out in Article 2 of the Paris Agreement.

2023 IMO Strategy on Reduction of GHG Emissions from Ships

Indicative checkpoints

3.4 Indicative checkpoints to reach net-zero GHG emissions from international shipping:

.1 to reduce the total annual GHG emissions from international shipping by at least 20%, striving for 30%, by 2030, compared to 2008; and

.2 to reduce the total annual GHG emissions from international shipping by at least 70%, striving for 80%, by 2040, compared to 2008.

2023 IMO Strategy on Reduction of GHG Emissions from Ships

Basket of candidate mid-term GHG reduction measures

4.5 In accordance with the timelines set out in this Strategy and the Work Plan, a basket of candidate measure(s), delivering on the reduction targets, should be developed and finalized comprised of both:

.1 a technical element, namely a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity; and

.2 an economic element, on the basis of a maritime GHG emissions pricing mechanism.

2023 IMO Strategy on Reduction of GHG Emissions from Ships

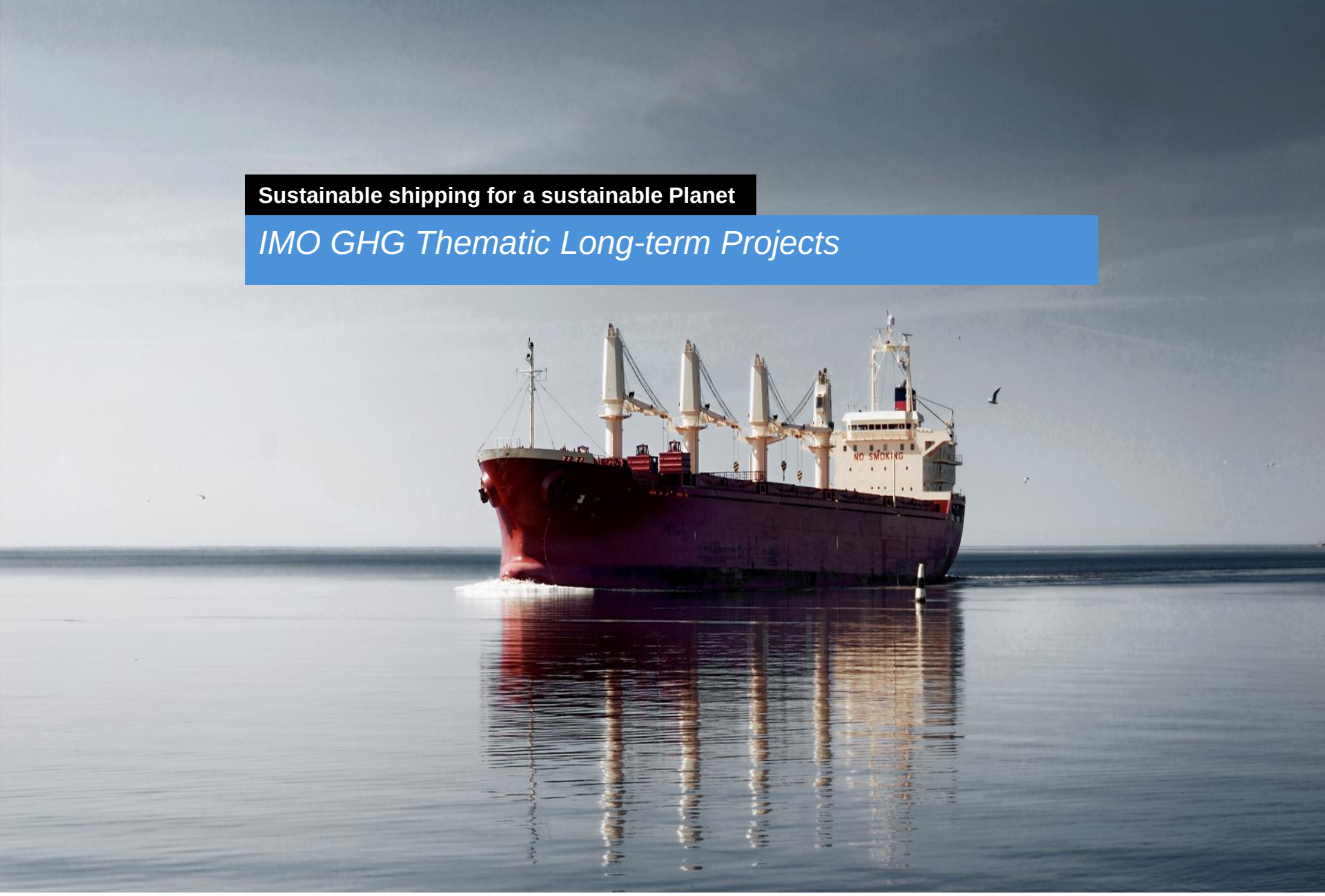
Target dates	Milestones		
	Comprehensive impact assessment of the basket of candidate mid-term measures	Development of candidate mid-term measures	Other milestones
MEPC 80 (Summer 2023)	Initiation of CIA	Initiate Phase III of the Work Plan on the development of mid-term measures	
MEPC 81 (Spring 2024)	Interim report	Finalization of basket of measures	
MEPC 82 (Autumn 2024)	Finalized report		
MEPC 83 (Spring 2025)		Approval of measures	Review of the short-term measure to be completed by 1 January 2026
Extraordinary one or two-day MEPC (six months after MEPC 83 in Autumn 2025)		Adoption of measures	
MEPC 84 (Spring 2026)			
MEPC 85 (Autumn 2026)			
16 months after adoption (2027)		Entry into force of measures	
MEPC 86 (Summer 2027)			Initiate the review of the 2023 IMO GHG Strategy
MEPC 87 (Spring 2028)			
MEPC 88 (Autumn 2028)			Finalization of the review of the 2023 IMO GHG Strategy with a view to adoption of the 2028 IMO GHG Strategy

2023 IMO Strategy on Reduction of GHG Emissions from Ships

5 BARRIERS AND SUPPORTIVE ACTIONS; CAPACITY-BUILDING AND TECHNICAL COOPERATION; R&D

5.1 The Committee recognizes that developing countries, in particular LDCs and SIDS, have special needs with regard to capacity-building and technical cooperation.

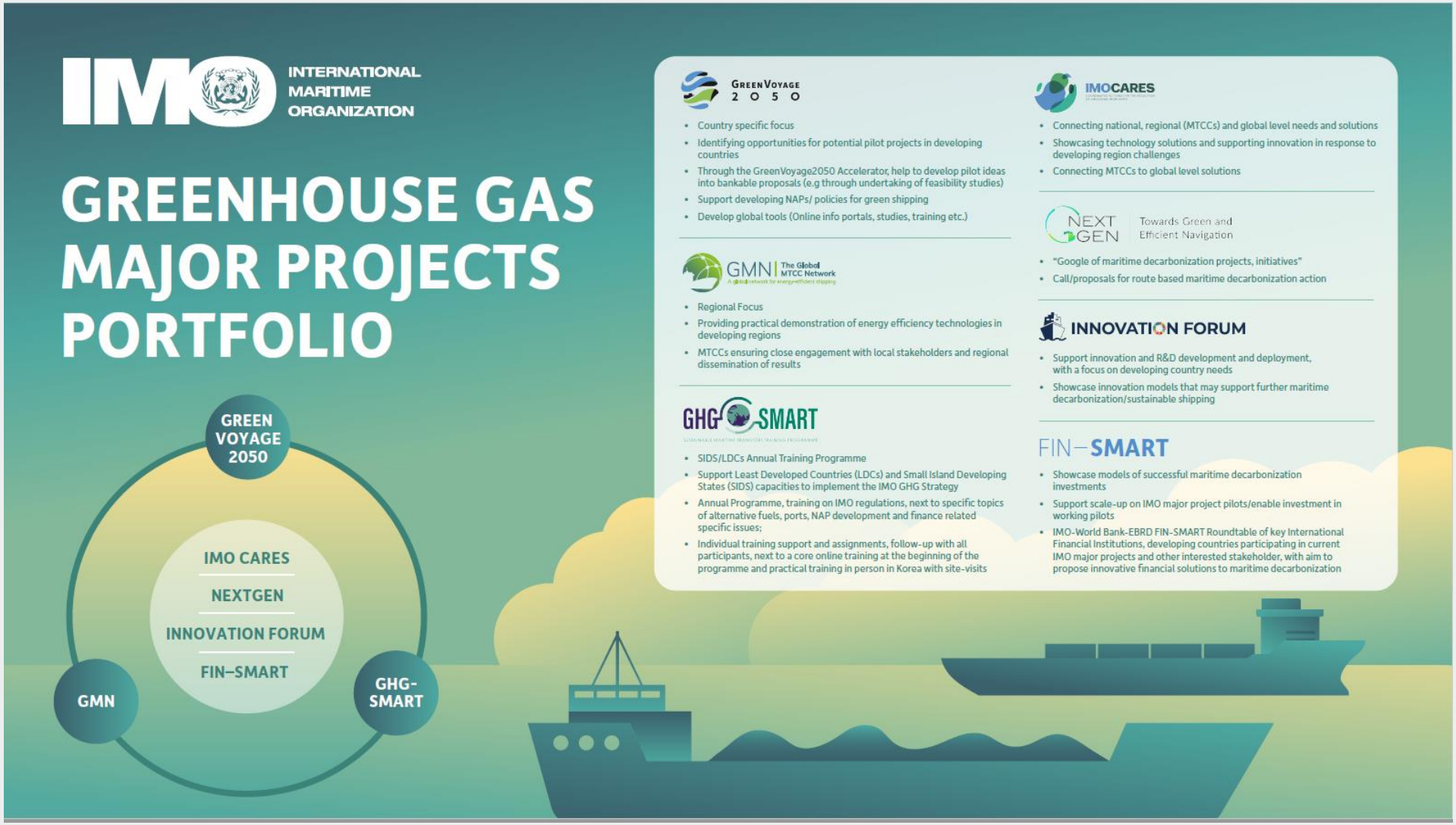
5.10 The Organization should assess periodically the provision of financial and technological resources and capacity-building to implement the Revised Strategy through the Integrated Technical Cooperation Programme (ITCP), the IMO GHG TC-Trust Fund and other initiatives, including both IMO and Member States-sponsored programmes, as listed in appendix 2.



Sustainable shipping for a sustainable Planet

IMO GHG Thematic Long-term Projects

IMO GHG Thematic Long-term Projects



Port-related – 2023 IMO GHG Strategy

5 BARRIERS AND SUPPORTIVE ACTIONS; CAPACITY-BUILDING AND TECHNICAL COOPERATION; R&D

5.4 The Committee acknowledges that development and making globally available zero and near-zero GHG emission technologies, fuels and/or energy sources, and the development of the necessary associated port infrastructure, could be specific barriers to the implementation of possible measures.

Other candidate mid-term GHG reduction measures

4.9 In addition to the basket of candidate mid-term GHG reduction measures, the Organization should continue to develop other mid-term GHG reduction measures to reduce GHG emissions from ships. All the following candidate mid-term measures represent possible mid-term further action of the Organization on matters related to the reduction of GHG emissions from ships:

Supporting global availability and uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources:

.7 consider and analyse measures to encourage port developments and activities globally to facilitate reduction of GHG emissions from shipping, including provision of ship and shoreside/onshore power supply from renewable sources, infrastructure to support supply of zero or near-zero GHG emission fuels and/or energy sources, and to further optimize the logistic chain and its planning, including ports.

Port-related Resolution and regulation

MEPC RESOLUTION.366(79)
(adopted on 16 December 2022)

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

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

RECALLING ALSO that Regulation 28.10 of MARPOL ANNEX VI encourages Administrations, port authorities and other stakeholders as appropriate to provide incentives to ships rated A or B,

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

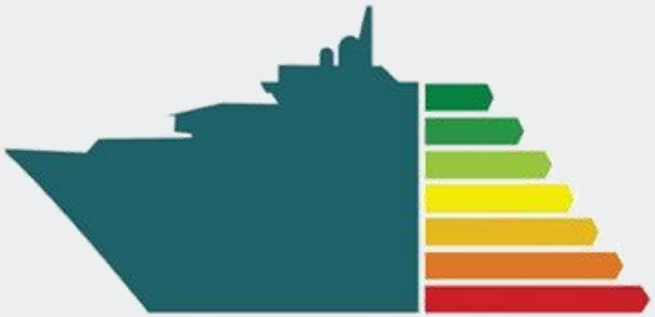
NOTING that the Initial Strategy calls for the encouragement of port developments and activities globally to facilitate reduction of GHG emissions from shipping, including provision of ship and shoreside/onshore power supply from renewable sources, infrastructure to support supply of alternative low-carbon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

RECALLING that, at its seventy-fourth session, the Committee adopted resolution MEPC.323(74) on the *Invitation to Member States to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships,*

RECALLING ALSO that, at its seventy-ninth session, the Committee agreed to revise resolution MEPC.323(74),

RECOGNIZING that many ports are already taking action to facilitate the reduction of GHG emissions from ships,

Invites Member States to promote the consideration and adoption by ports within their jurisdiction, of regulatory, technical, operational and economic actions to facilitate the reduction of GHG emissions from ships. Those could include but are not limited to the provision of :
(a) **onshore power supply** (preferably from renewable sources)
(b) safe and efficient **bunkering** of alternative low-carbon and zero-carbon fuels
(c) **incentives** promoting sustainable low-carbon and zero-carbon shipping
(d) support for the **optimization of port calls**
(e) facilitating **voluntary cooperation through the whole value chain, including ports**, to create favourable conditions to reduce GHG emissions from ships through shipping routes and maritime hubs consistent with international law, including the multilateral trade regime



Carbon Intensity Indicator (CII)

GreenVoyage 2050

GEOGRAPHIC FOCUS	New Pilot Countries: Azerbaijan, Belize, Cook Islands, Ecuador, Kenya, Solomon Islands and Sri Lanka Pioneer Pilot Countries: China, Georgia, India, Malaysia and South Africa
TOTAL BUDGET	7.15 Million USD
DONOR	Norwegian Ministry of Climate and Environment
PROJECT DURATION	2019-2022
WEBSITE / CONTACT	greenvoyage2050.imo.org greenvoyage2050@imo.org

Supporting shipping's transition **towards a low carbon future**

THE ISSUE

According to the Fourth IMO GHG Study 2020, CO_2 emissions from shipping account for approximately 2.89% of global anthropogenic emissions, and if left unchecked, could rise significantly in the future. In 2018, IMO adopted the Initial IMO Strategy on reduction of GHG emissions from ships confirming IMO's commitment to reducing GHG emissions from international shipping and, as a matter of urgency, to phasing them out as soon as possible.

INTERNATIONAL MARITIME ORGANIZATION

OUR SOLUTION

Supporting effective implementation of the Initial IMO GHG Strategy and in particular, providing support to developing countries in their efforts to reduce GHG emissions from ships, through enhancing government and port management capacities to:

- Undertake legal and policy reforms to effectively implement MARPOL Annex VI.
- Develop National Action Plans (NAPs) to address GHG emissions from ships.
- Catalyze private sector partnerships.
- Deliver pilot demonstration projects to facilitate technology uptake.

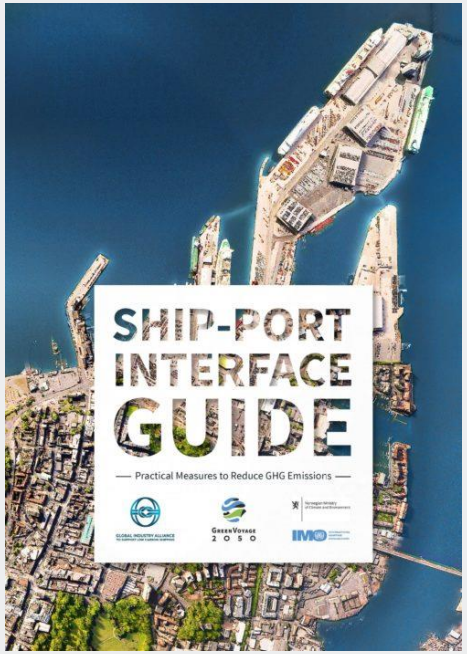
IMPACT

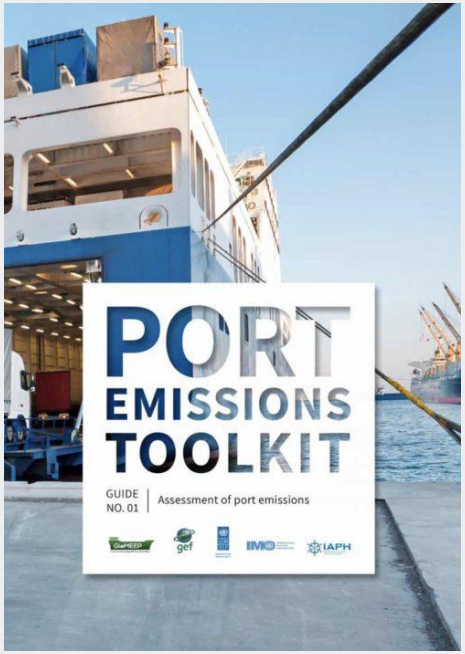
- ✓ High level commitment secured from all participating countries to progress on activities in their tailored workplans.
- ✓ Development of global capacity-building tools and training material to support decarbonization efforts.
- ✓ Initial dialogue with IFI's and other strategic partners to support pilot project implementation and other outputs.
- ✓ Reestablishment of the Low Carbon GIA under GreenVoyage2050, a public-private partnership to support low carbon shipping.

Low-carbon GIA – GreenVoyage2050 PCU serves as Secretariat

GLOBAL INDUSTRY ALLIANCE
TO SUPPORT LOW CARBON SHIPPING

Publications





GreenVoyage2050 - Open call for workshop participation

Norwegian Ministry of Climate and Environment
Norway
Pioneering sustainability
Norwegian Consulate General
Mumbai

GREENVOYAGE 2050

INTERNATIONAL MARITIME ORGANIZATION

iaph international association of ports and harbors

Open call for workshop participation
Port actions for greener shipping

Mumbai, India
10-12 October 2023

The IMO-Norway GreenVoyage2050 Project, in collaboration with the International Association of Ports and Harbours (IAPH), the Directorate General of Shipping of India (DGS) and the Royal Norwegian Consulate General Mumbai are holding the above-mentioned in-person workshop from 10 to 12 October 2023, in Mumbai.

The workshop will take place over three days and train participants on emission reduction opportunities in ports, aligned with IMO's resolution MEPC.366(79) encouraging voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships.

Day 1 will provide an introduction and overview of various measures a port can consider contributing to reducing port / ship emissions. Days 2 and 3 will see participants split into two groups – one focussing in on more detail on Onshore Power Supply (OPS) and the other exploring the ports perspective of alternative marine fuels. More information about these two workshops, along with the suggested participant profile is provided below, and the workshop programme overview is attached.

Onshore Power Supply	Alternative marine fuels – a ports perspective
Aim:. OPS is one of many strategies that have potential to reduce emissions from ships while at-berth. The training will provide participants with an in-depth overview of OPS from the port perspective and dive into the various analyses which need to be undertaken to assess feasibility and potential usage before any investment/implementation decisions are made.	**Aim:** Familiarize port operators with alternative marine fuels that will likely play a key role for ships in the coming decades, and support port representatives with know-how to prepare for the new fuels and identify opportunities for future development. The workshop will include an overview of the different types of future fuels, and drivers for their uptake, and present in detail how ports can assess their readiness and prepare for the provision of zero and near-zero GHG fuels.

New Pilot Countries

- Azerbaijan — State Maritime Agency
- Belize — Belize Port Authority
- Cook Islands — Ministry of Foreign Affairs & Immigration
- Ecuador — Subsecretaría de Puertos y Transporte Marítimo y Fluvial
- Kenya — State Department For Maritime And Shipping Affairs
- Solomon Islands — Maritime Authority
- Sri Lanka — Marine Environment Protection Authority

Pioneer Pilot Countries

- China — Maritime Safety Administration
- Georgia — Maritime Transport Agency
- India — Directorate General of Shipping
- Malaysia — Ministry of Transport
- South Africa — Ministry of Transport

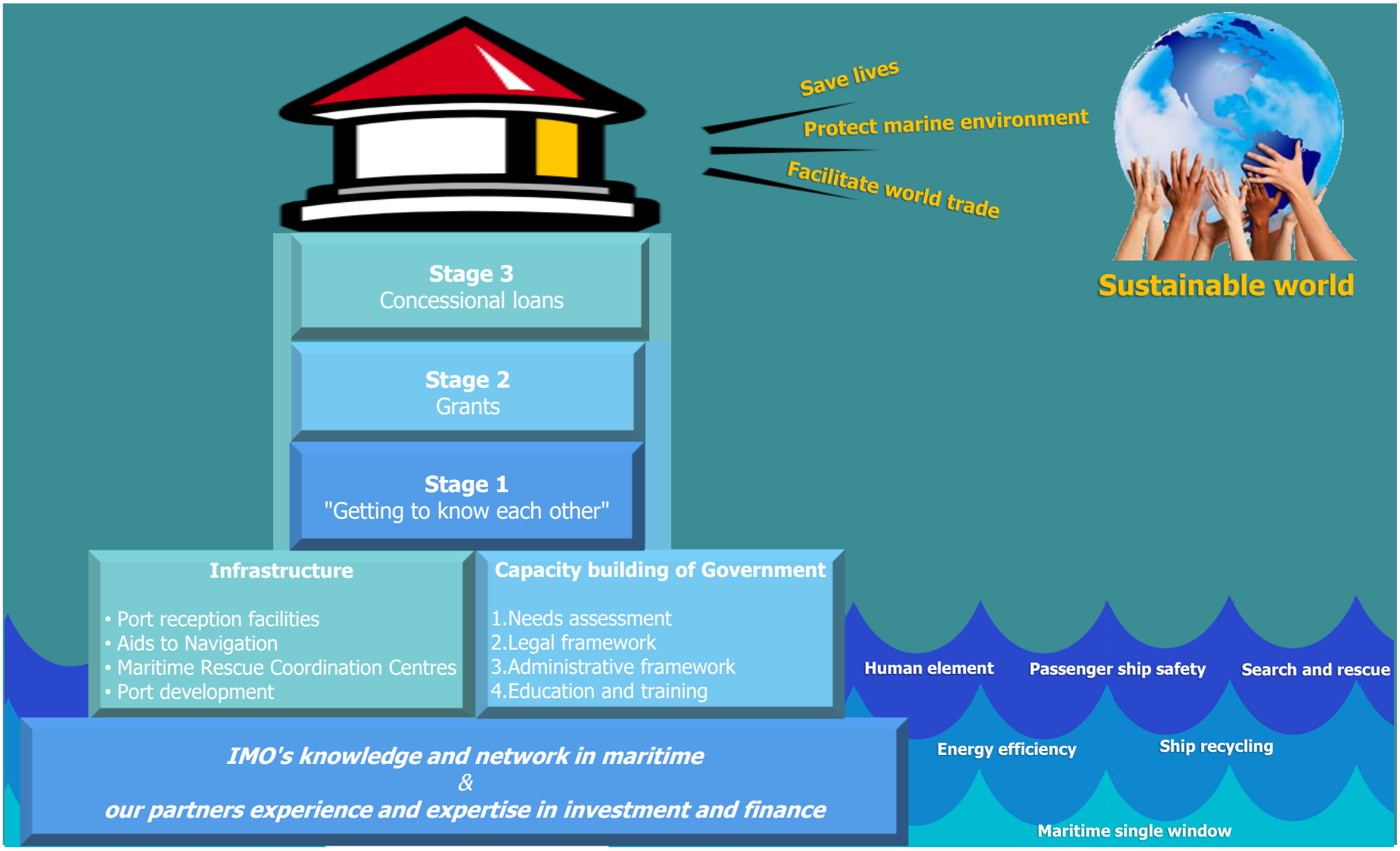
Sustainable shipping for a sustainable planet

Resource Mobilization Strategy &Knowledge Partnership

Resource Mobilization Strategy - *Message flow*

IMO's value	IMO's strengths	Achievements	Cooperation opportunities
IMO's work is valuable and aligned with your interests	**Partnership with IMO will benefit your work**	**Evidence of IMO's competency and experience**	**Your shopping list – choose one or more**
• Saving lives • Protecting the environment • Promoting economic development Key criteria in SDGs and Development Aids	• Global standard setting organization • Network with Governments • Maritime knowledge and expertise – Over 50yrs in TC activities • United Nations	• Global maritime training institutes ▪ WMU ▪ IMLI • Establishment of maritime administrations • Awareness and training courses • Needs assessments • Major Projects ▪ GloBallast ▪ GloMEEP	• Safety issues ▪ Human element ▪ Search and Rescue ▪ Aids to navigation ▪ Passenger ship safety • Environment issues ▪ Ballast Water treatment ▪ Energy efficiency ▪ Ship recycling ▪ Bio-fouling ▪ Reception facilities ▪ Cold ironing • Maritime single window • IMSAS • Gender

Knowledge Partnership Mechanism



Knowledge Partnership Mechanism – *Role of IMO*

Stage 1: Getting to Know each other

Bridge between Donor/Recipients, Coordinator, Match maker……

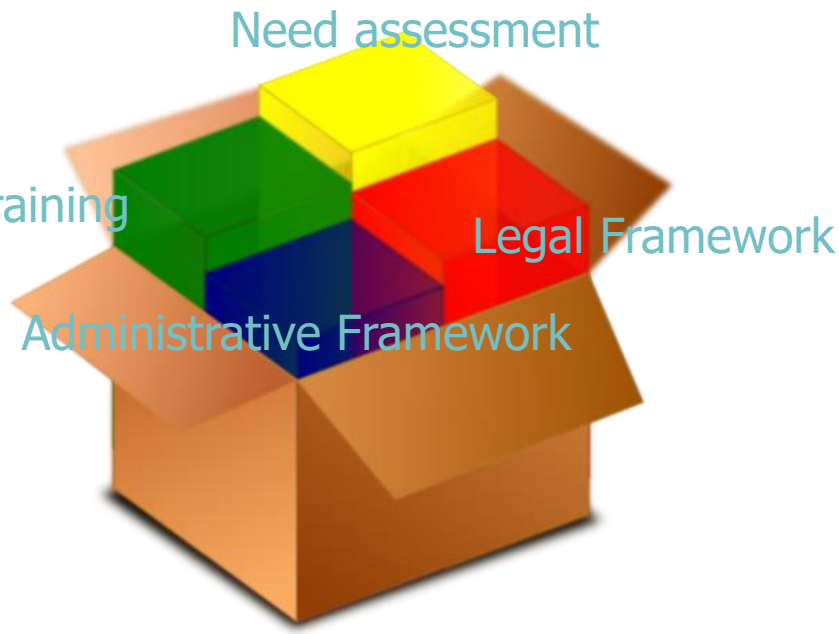
How:

- Knowledge Partnership Workshops
- Marketing activities
    - Outreach to the potentials Donors
    - Communication with Maritime Administrations
    - Distribution of marketing materials

Knowledge Partnership Mechanism – *Role of IMO*

Stage 2: Grants

Projects in a packaged form



Size of the Project
$700,000 a year
($100,000 - $ 10million)

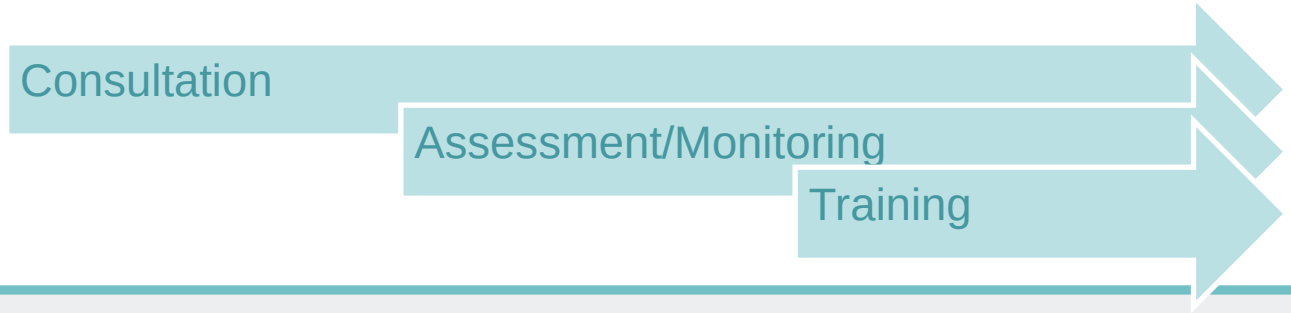
Knowledge Partnership Mechanism – *Role of IMO*

Stage 3: Infrastructure projects

"Ensuring the sustainability of the project"

All stages from

through



PARTNER WITH IMO

Why maritime?

Maritime and port activities are key to national economic growth. Support for maritime development cooperation activities strengthens diplomatic relations between donors and developing countries. Through **sustainable maritime transport (SMART)** development, new markets are created for technologies and solutions. Energy transition and digitalization are the main drivers.

Why IMO?

IMO is known for its agility, efficiency and convening power. IMO is the **specialized UN agency** responsible for safe, secure, environmentally sound, efficient and sustainable shipping.

IMO is **OECD DAC# registered**, meaning all contributions are reported in the OECD statistics.

IMO partnerships gain visibility and awareness through IMO's **extensive global network** of 175 Member States, three Associate Members, 88 NGOs and 66 IGOs.

Role of IMO:

Recipient	IMO	Donor

• Identify SMART (sustainable maritime transport) needs	• Develop project concepts
	  • Based on SMART needs
	  • Align with donors' priorities
		• Selection of projects/recipients

• Ensure ownership and results
  • National Taskforces
  • Milestones-based resource allocation
• Overseen by high-level officials (NKPOs*)
	• Bring together key stakeholders
	• Efficient project implementation and management
		• Visibility to
		  • 175 Member States and three Associate Members
		  • 154 NGOs /IGOs
		• Effective use of ODA funds for SMART development

* NKPO – National Knowledge Partnership Officer/high-level official to constantly liaise with IMO on parentships and projects

#OECD-DAC - **OECD Development Assistance Committee.** The DAC List of ODA Recipients shows all countries and territories eligible to receive official development assistance (ODA).

Portfolio of projects as at March 2023
$110 million USD

IMO project areas

Marine Environment

Climate change – 8 projects ($56m)
- Enhanced government and port management capacities
- Legal and policy reforms
- Effective implementation of IMO instruments and conventions
- Pilot projects for technology deployment
- Human capacity building
- Catalyse private sector partnership
- Global institutional network such as regional Centres of Excellence
- SMART Finance Facilities
- Energy transition and future fuels
- Regional route-based actions
- Innovation for low-carbon shipping

Marine plastic and litter – 2 projects ($11m)

Marine biosecurity – 2 projects ($11m)

Green ship recycling – 1 project ($3.9m)

Underwater noise from shipping – 1 project ($2m)

Support ratification and implementation of IMO conventions – 1 project ($2m)

Oil spill response

Port reception facilities

On shore clean energy power supply for vessels

Maritime Safety and Security

Safety – 3 projects ($3.4m)
- Domestic ferry safety
- Illegal, unregulated and unreported fishing (IUU)
- Vessel traffic service

Security – 2 projects ($13.4m)
- Maritime security in the Red Sea
- Port security in west and southern Africa

Human element – 2 project ($4.4m)
- Onboard training of cadets
- Capacity building for implementation of IMO conventions and regulations

Safety
- Fishing vessel safety
- Safe carriage of cargoes (Dangerous cargoes)
- Maritime Autonomous Surface Ships (MASS)
- Marine casualty and accident investigation

Security
- Cybersecurity
- Ship and port facility security (ISPS Code)

Human element
- Safety management (ISM code)
- Sexual assault and sexual harassment (SASH)

Infrastructure
- Search and Rescue (SAR)/Maritime rescue coordination centre (MRCC)
- Vessel traffic monitoring system
- Aids to Navigation
- Global maritime distress and safety system (GMDSS)

Legal and Facilitation

Digitised system for ships entering port (Maritime Single Window)

Establish or improve Maritime Administration

Harmonization of PSC activities

Implementation of compensation liability and compensation treaties

National maritime transport policy/legislation

Digitalization

Cross-thematic

Women in Maritime - 1 programme & 1 project (3m)

Fellowships to WMU and IMLI

Assist Member States in implementing action plans following audits

Establishment/Improvement of maritime training facilities

Note: Ongoing projects can be expanded and/or rolled out in other regions

Key
Current projects
Future projects

Implementation of Resource Mobilization Strategy

The Commonwealth

Norwegian Ministry of Climate and Environment

MPA SINGAPORE

CABEI Central American Bank for Economic Integration

ESCAP 75 MOVING FORWARD TOGETHER

European Bank for Reconstruction and Development

Thank you for joining us on the sustainable journey

INTERNATIONAL MARITIME ORGANIZATION

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