



Norwegian Ministry
of Climate and Environment

Reduction of Greenhouse Gas emissions from shipping

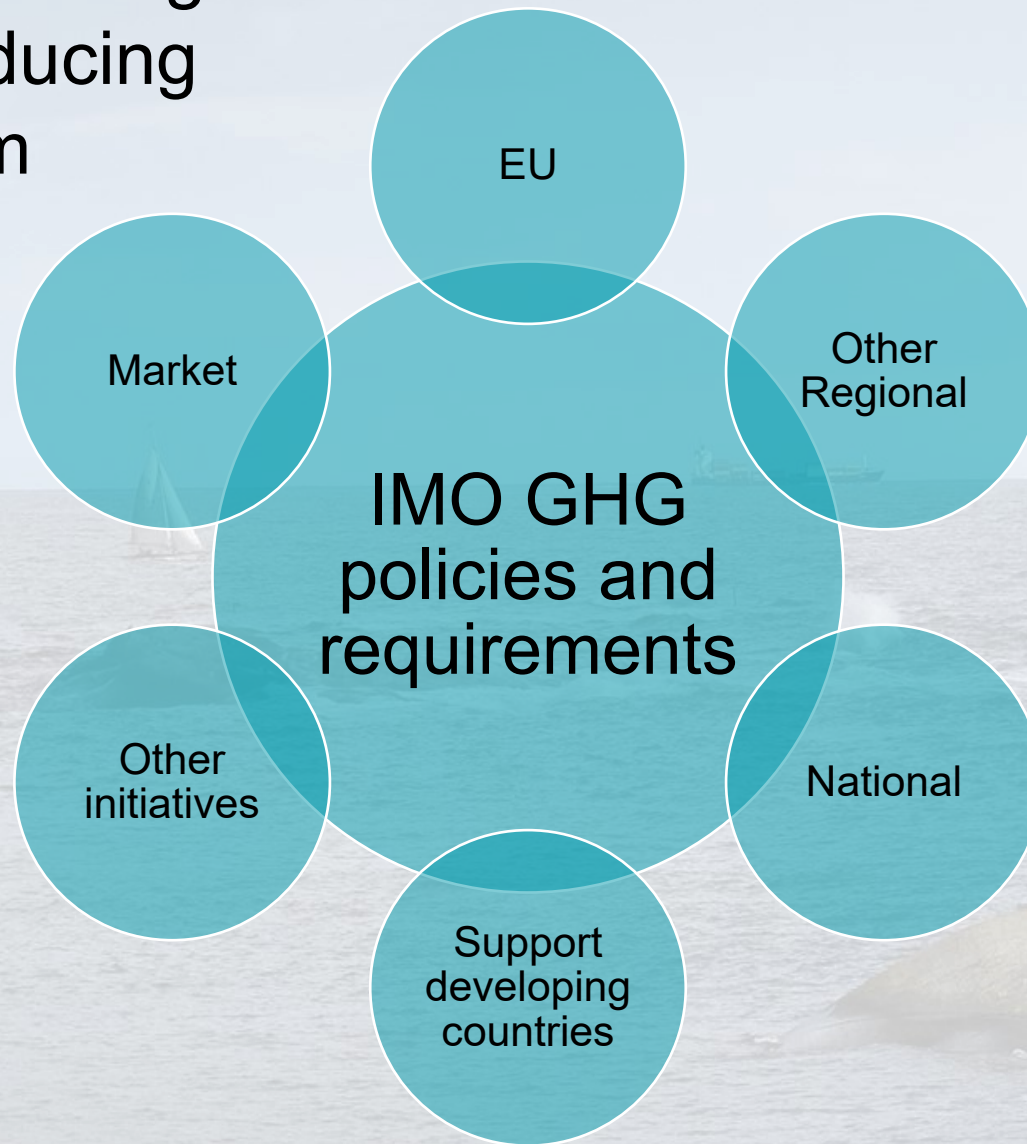
A snapshot of ongoing activities

Sveinung Oftedal

Specialist director



At present it is «record high»
activity aiming at reducing
GHG emissions from
shipping





Annex I - Oil
Annex II - Noxious Liquid Substances in Bulk
Annex III - Harmful Substances in Packaged Form
Annex IV - Sewage
Annex V - Garbage
Annex VI - Air Pollution

Climate policy in a technical framework

Chapter 1- General
Chapter 2 - Survey, certification and means of control
Chapter 3 - Requirements for control of emissions from ships
Chapter 4 - Regulations on the Carbon Intensity of International Shipping
Chapter 5 - Verification of compliance with the provisions of this Annex

Regulation 28 - Operational Carbon Intensity (paragraphs 4 & 5)	2021 CII Reduction Factor Guidelines
Chapter 4 - The reduction factors for the required annual operational CII of ship types	

Z

4.1 In accordance with regulation 28 of MARPOL Annex VI, the required annual operational CII for a ship is calculated as follows:

$$\text{Required annual operational CII} = (1 - Z / 100) \times CII_R$$

where CII_R is the reference value in year 2019 as defined in the *Guidelines on the reference lines for use with operational carbon intensity indicators (G2)*. Z is a general reference to the reduction factors for the required annual operational CII of ship types from year 2023 to 2030, as specified in table 1.

Table 1: Reduction factor (Z%) for the CII relative to the 2019 reference line

Year	Reduction factor relative to 2019
2023	5%*
2024	7%
2025	9%
2026	11%
2027	- **
2028	- **
2029	- **
2030	- **

Note:

- * Z factors of 1%, 2% and 3% are set for the years of 2020 to 2022, similar as business as usual until entry into force of the measure.
- ** Z factors for the years of 2027 to 2030 to be further strengthened and developed taking into account the review of the short-term measure.

The environmental agenda at the IMO has «always» been political

Climate Change – Global change



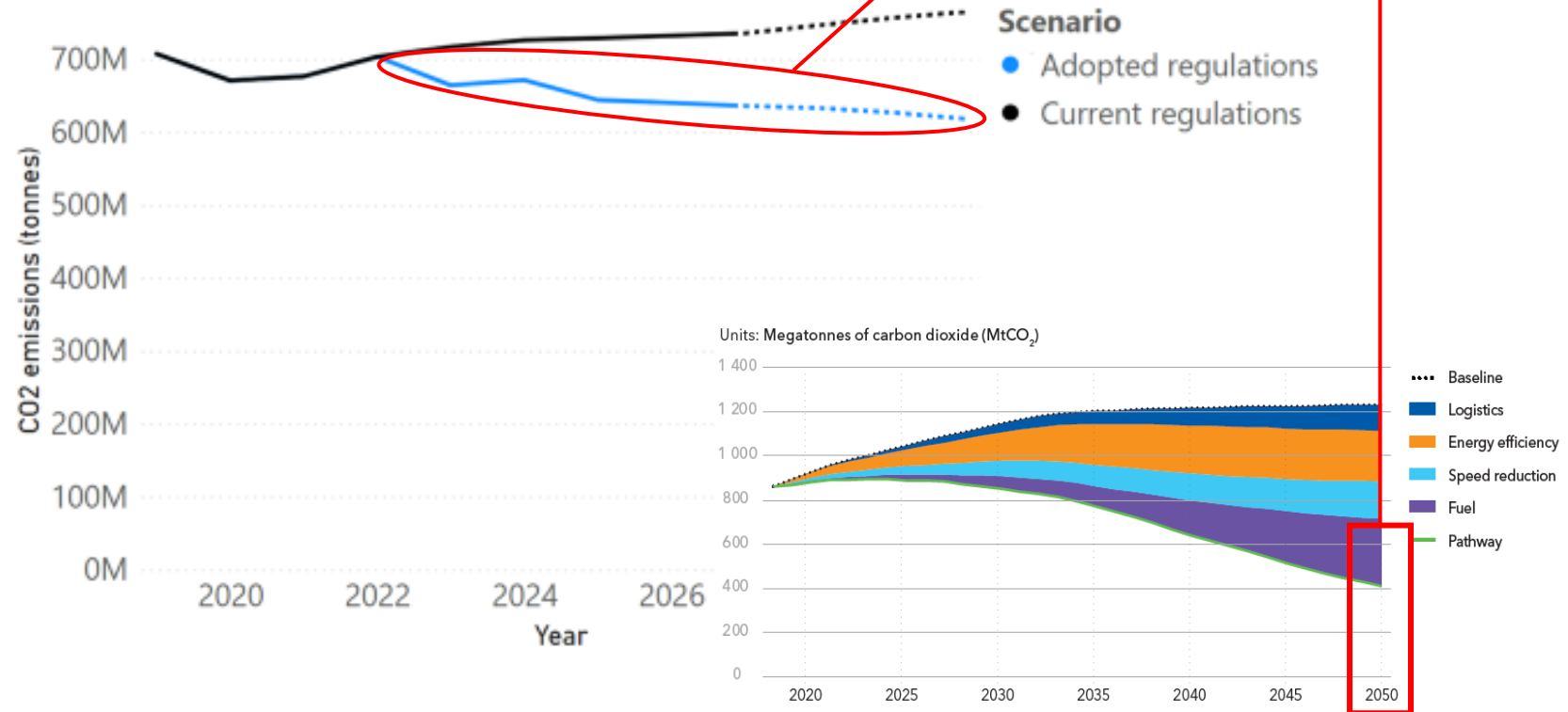
«Short-Term GHG-measures» adopted

17 June 2021

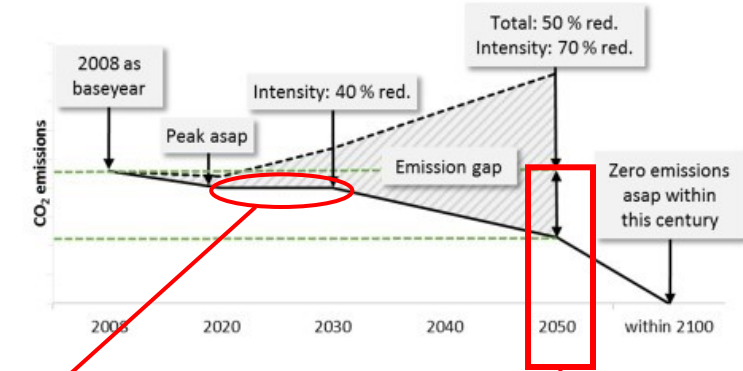
**Further shipping
GHG emission
reduction
measures adopted**

Will enter into force in
November 2022

CO₂ emissions



Initial IMO Strategy on reduction of GHG emissions:
Vision and ambitions



01 December 2021

IMO moves ahead on GHG emissions, Black Carbon and marine litter

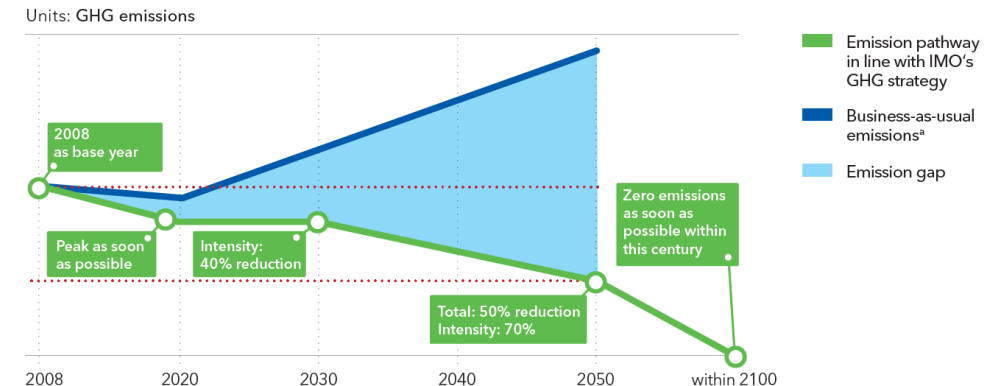


• MEPC 77

- Agreed to initiate the revision of the Initial IMO Strategy on Reduction of GHG Emissions - to be finalized in 2023
- Recognized the need to strengthen the ambitions in the IMO GHG Strategy
- Agreed to negotiate all new measures in the context of the agreed work plan, and decide on measures in conjunction with the adoption of the revised IMO GHG Strategy
- Agreed to hold to intersessional meetings winter/spring 2022 to ensure progress prior to MEPC 78 in June 2022



Klima- og
miljødepartementet



Total: Refers to the absolute amount of GHG emissions from international shipping.

Intensity: Carbon dioxide (CO₂) emitted per tonne-mile.

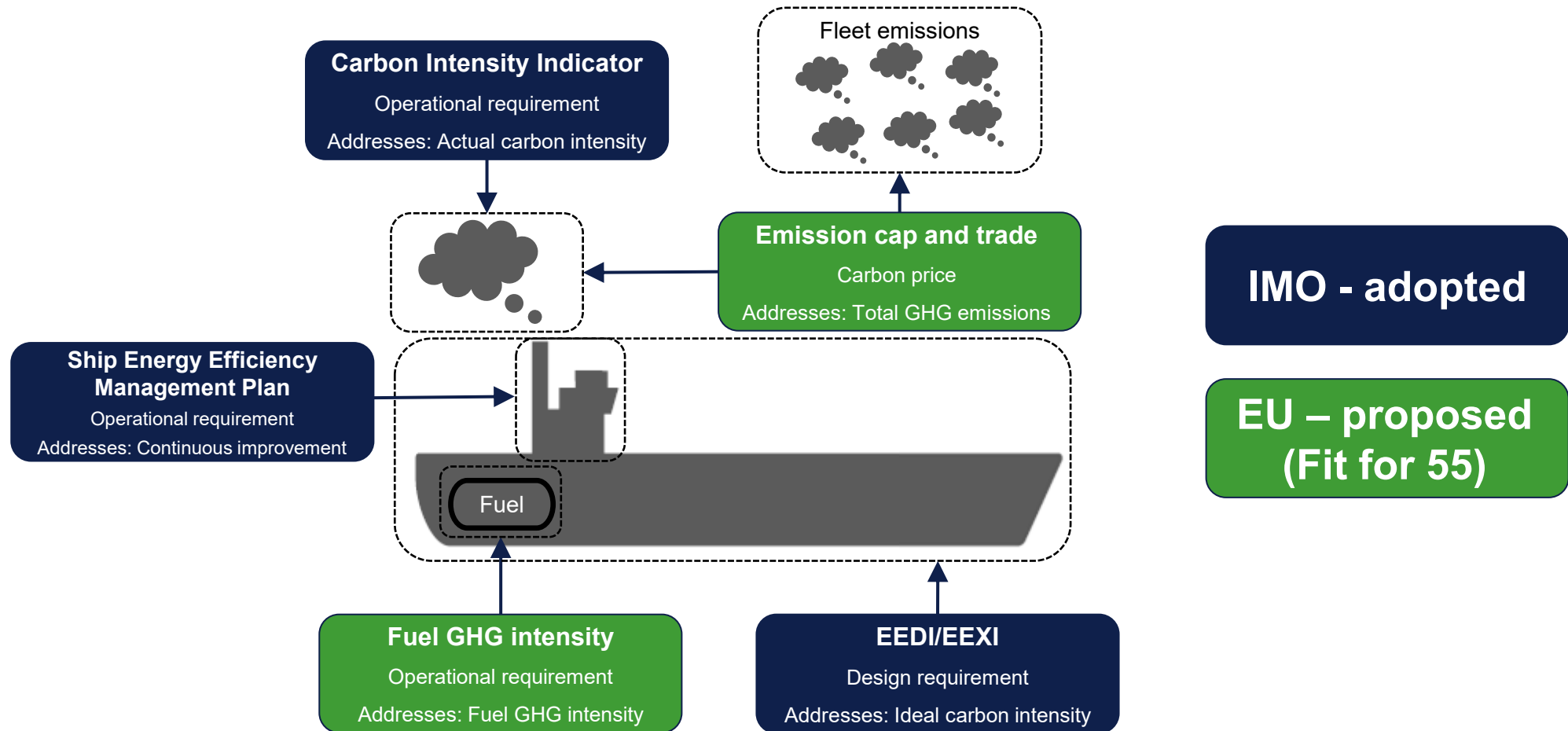
^aNote that the the business-as-usual emissions are illustrative, and not consistent with the emissions baseline used in our modelling (Chapter 6).

At present negotiations on:

- **Revised IMO GHG Strategy**
- **Mid- and Long-term measures**
- Follow-up on the Short-term measures (guidelines + code)
- LCA guidelines for fuels
- VOC-emissions
- Amendments to the DCS
- Improvement on the framework to assess impacts on states



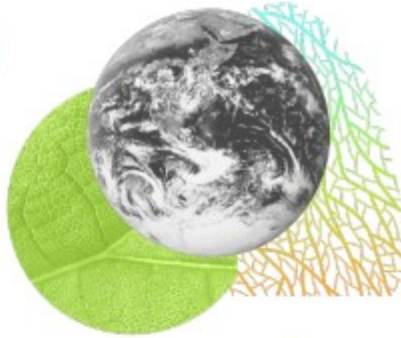
Regulatory framework to address GHG emissions takes shape



14 juli 2021 - EU kommisjonen presenterer en kraftfull pakke for å nå målet om 55 prosent utslippskutt innen 2030

Delivering on the 2030 commitment

CLIMATE



TRANSPORT



ENERGY



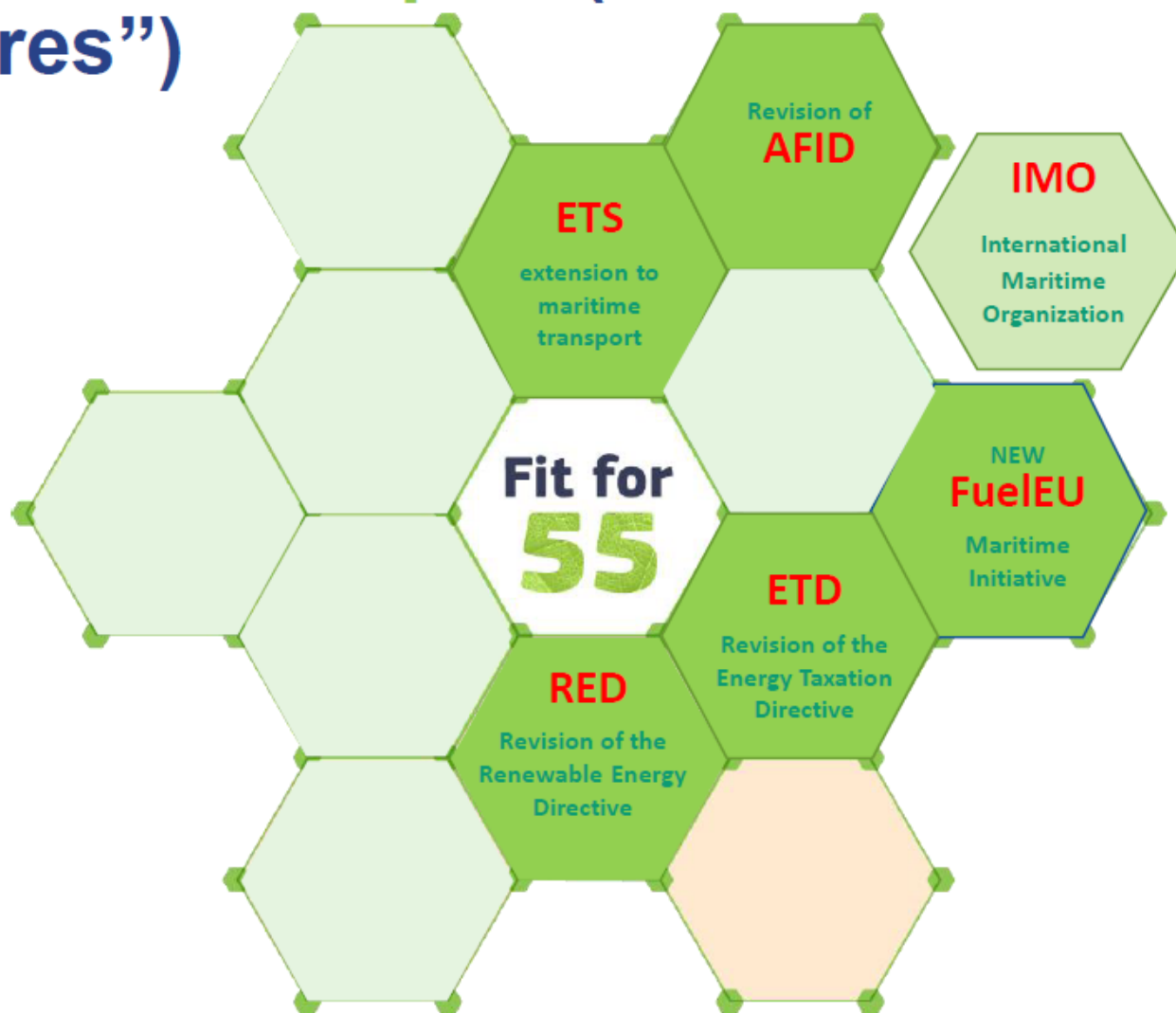
TAXATION AND TRADE



European
Commission

Mobility and Transport

Initiatives that concern waterborne transport (“basket of measures”)



MARITIME



Nordisk Ministerråd

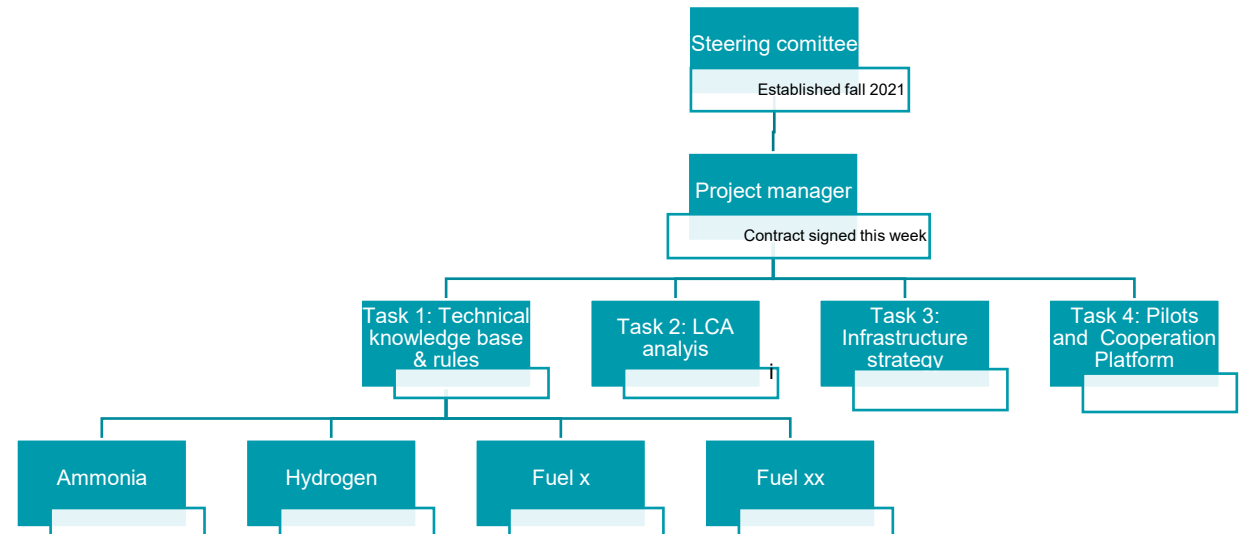
Visjonsprosjekt:

"Nordisk veikart for innføring av bærekraftig nullutslipps drivstoff i skipsfart"

"Nordic Roadmap for the introduction of sustainable zero-carbon fuels in shipping"

Three Goals:

1. The Nordic countries have gained a technical knowledge base and provided a framework for regulatory development of promising alternative fuels.
2. The Nordic countries have established a strategy for infrastructure development and for the use of harbours as green energy hubs.
3. The Nordic countries have established a platform for improved cooperation between Nordic industries and companies, and can promote the high level of competence and competitiveness of Nordic companies and institutions when use of carbon sustainable zero-carbon picks up globally.





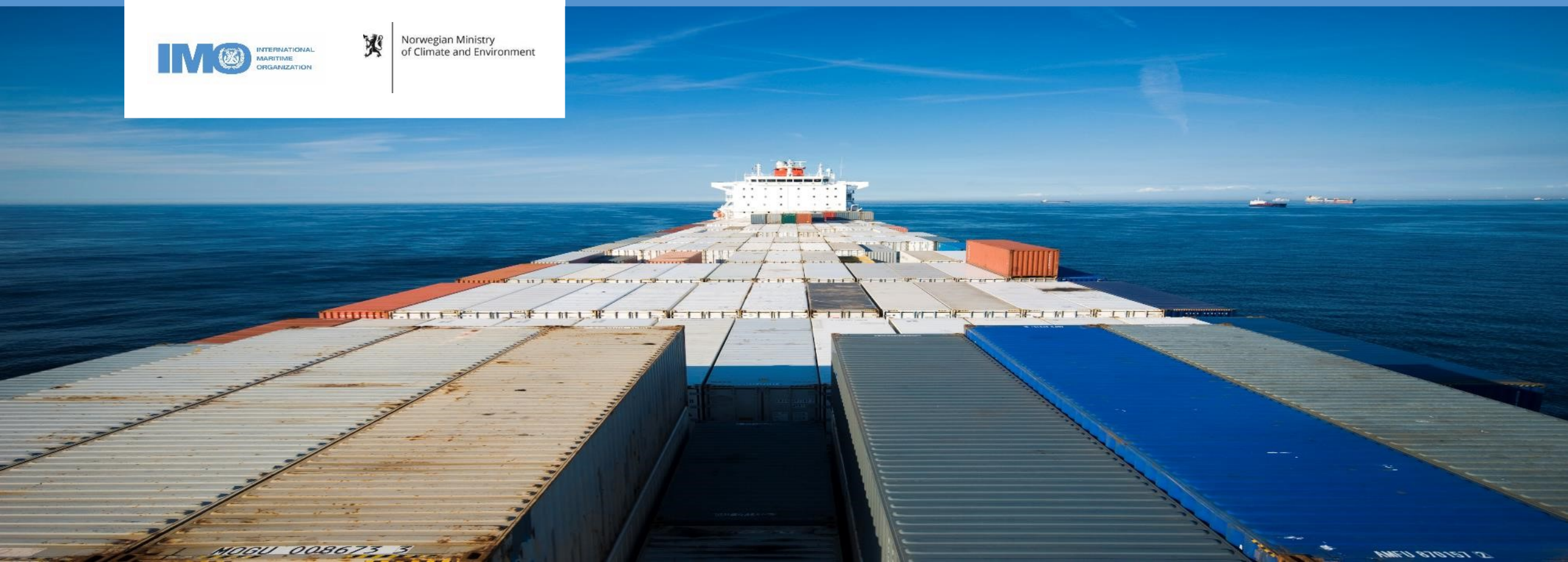
GREEN VOYAGE
2 0 5 0



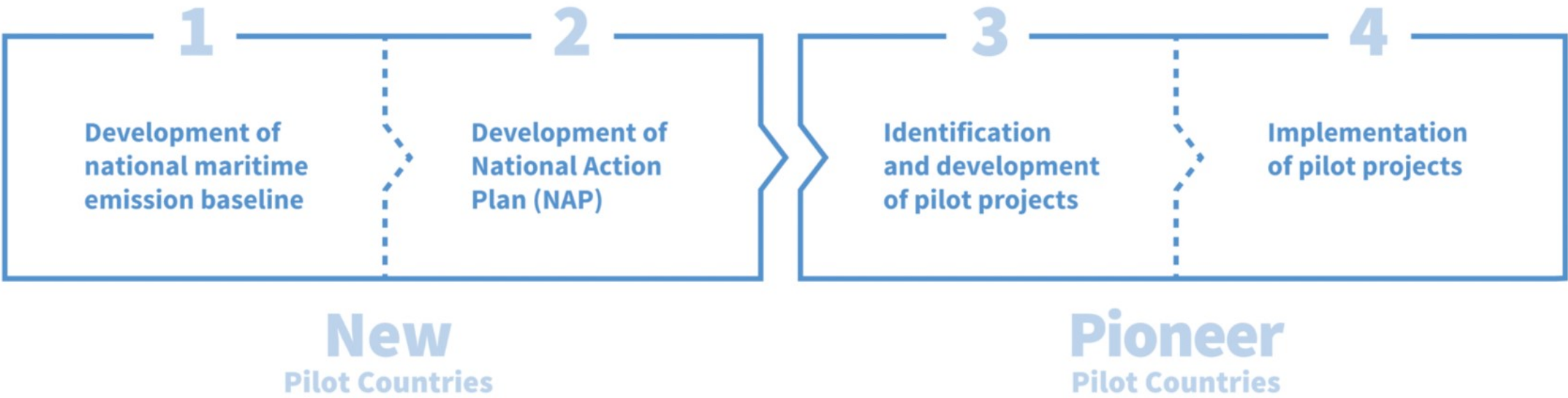
Norwegian Ministry
of Climate and Environment





IMO-NORWAY GREEN VOYAGE 2050






ACHIEVING THE MARITIME ENERGY TRANSITION
WHILE LEAVING NO COUNTRY BEHIND



Phase 1 – Main areas of work

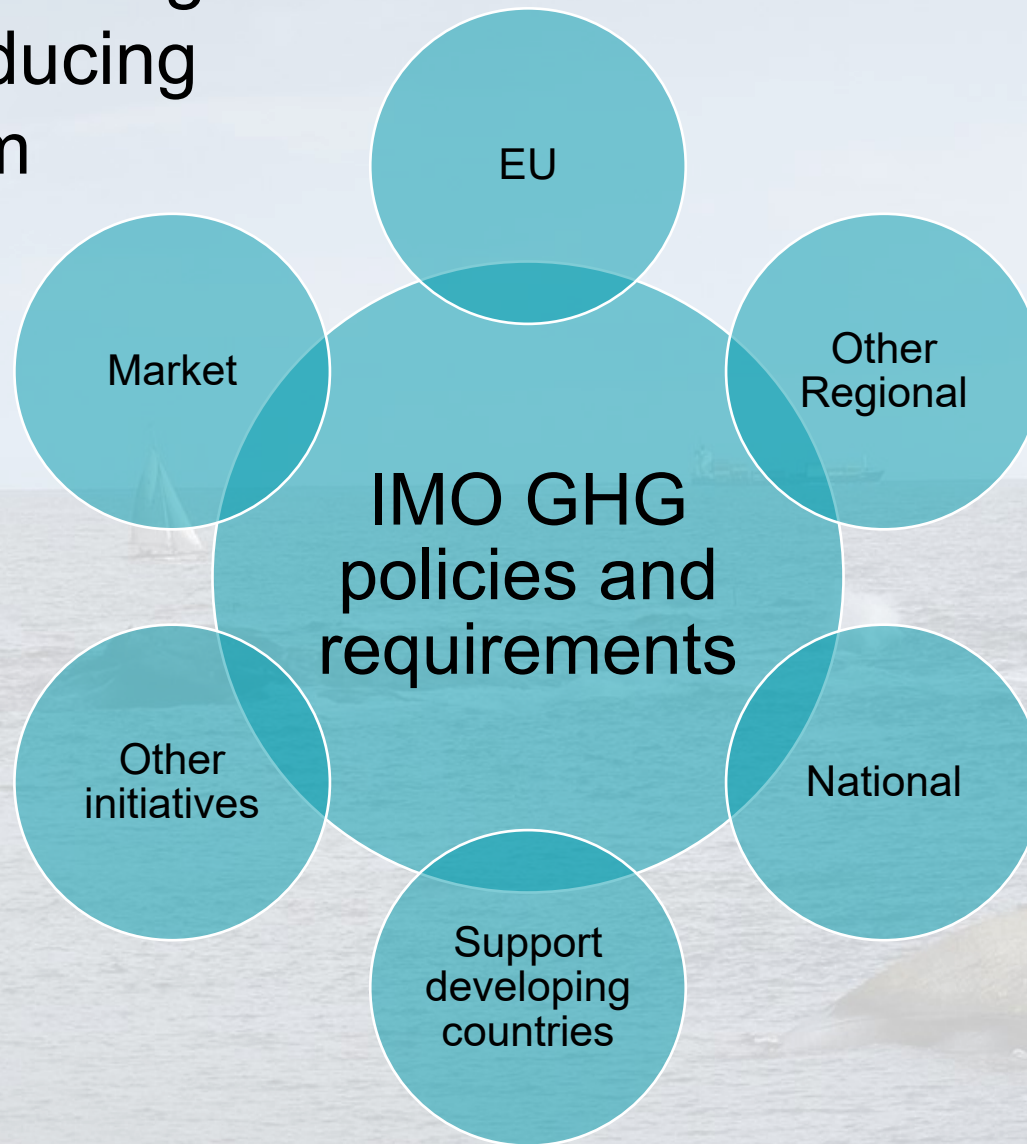


- | | | |
|---|---|--|
|  Azerbaijan
State Maritime Agency |  Belize
Belize Port Authority |  Cook Islands
Ministry of Foreign Affairs & Immigration |
|  Ecuador
Subsecretaría de Puertos y Transporte Marítimo y Fluvial |  Kenya
State Department For Maritime And Shipping Affairs |  Solomon Islands
Maritime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

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



At present it is «record high»
activity aiming at reducing
GHG emissions from
shipping





Thank you for your attention!