

**IMO and shipping  
decarbonisation: the legal  
framework to adopt a Market-  
Based-Measure (MBM)**

**21<sup>st</sup> Annual International  
Conference on Law**

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# I – Introduction: The legal framework of maritime transport decarbonization

## What is the International Maritime Organization (IMO)?

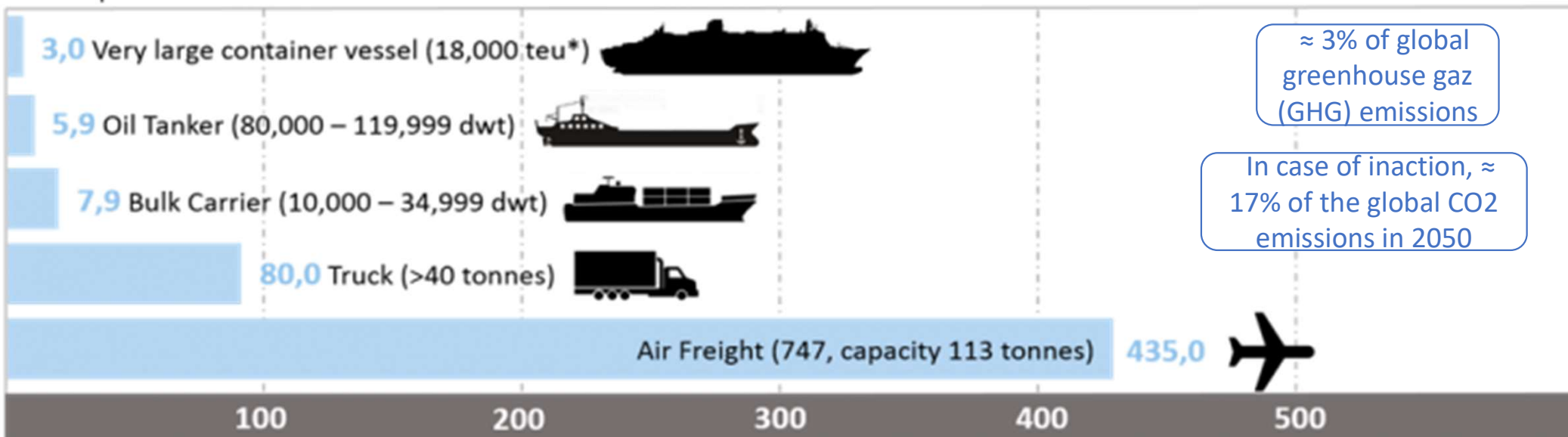


# I – Introduction: The legal framework of maritime transport decarbonization

What is the impact of maritime transport sector ?

## COMPARISON OF TYPICAL CO<sub>2</sub> EMISSIONS BETWEEN MODES OF TRANSPORT

Grams per tonne-km

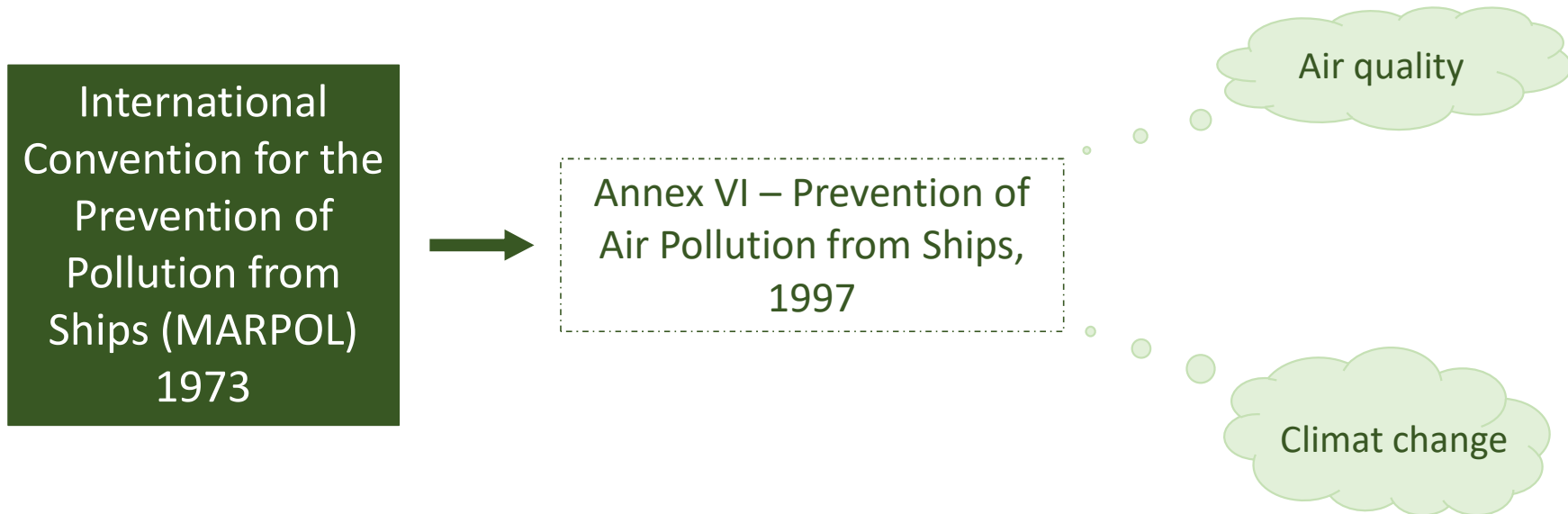


Source: IMO GHG Study, 2009 (\*AP Moller.Maersk 2014)

Suissegoce

# I – Introduction: The legal framework of maritime transport decarbonization

## What is MARPOL Convention?

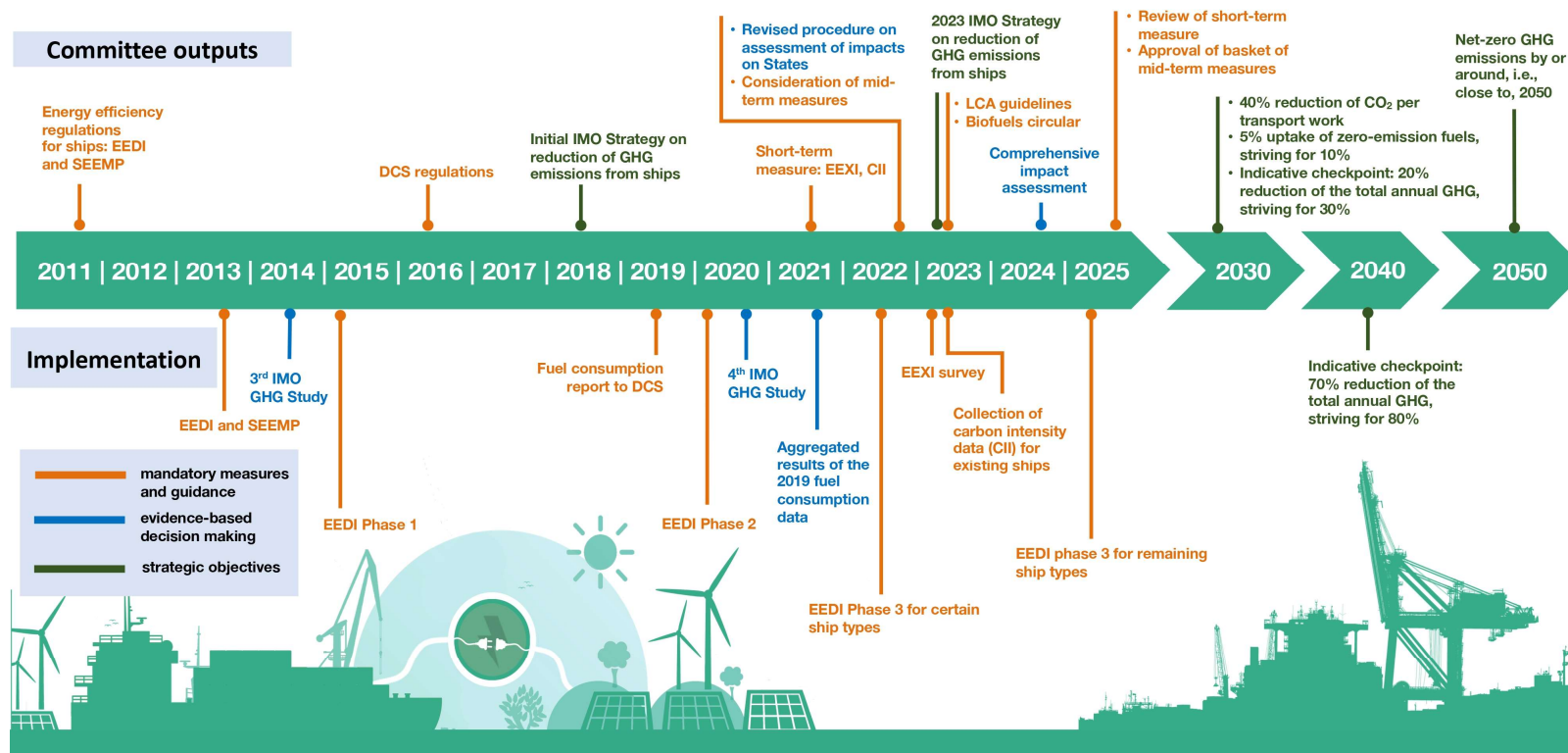


# I – Introduction: The legal framework of maritime transport decarbonization

## What are the key measures?

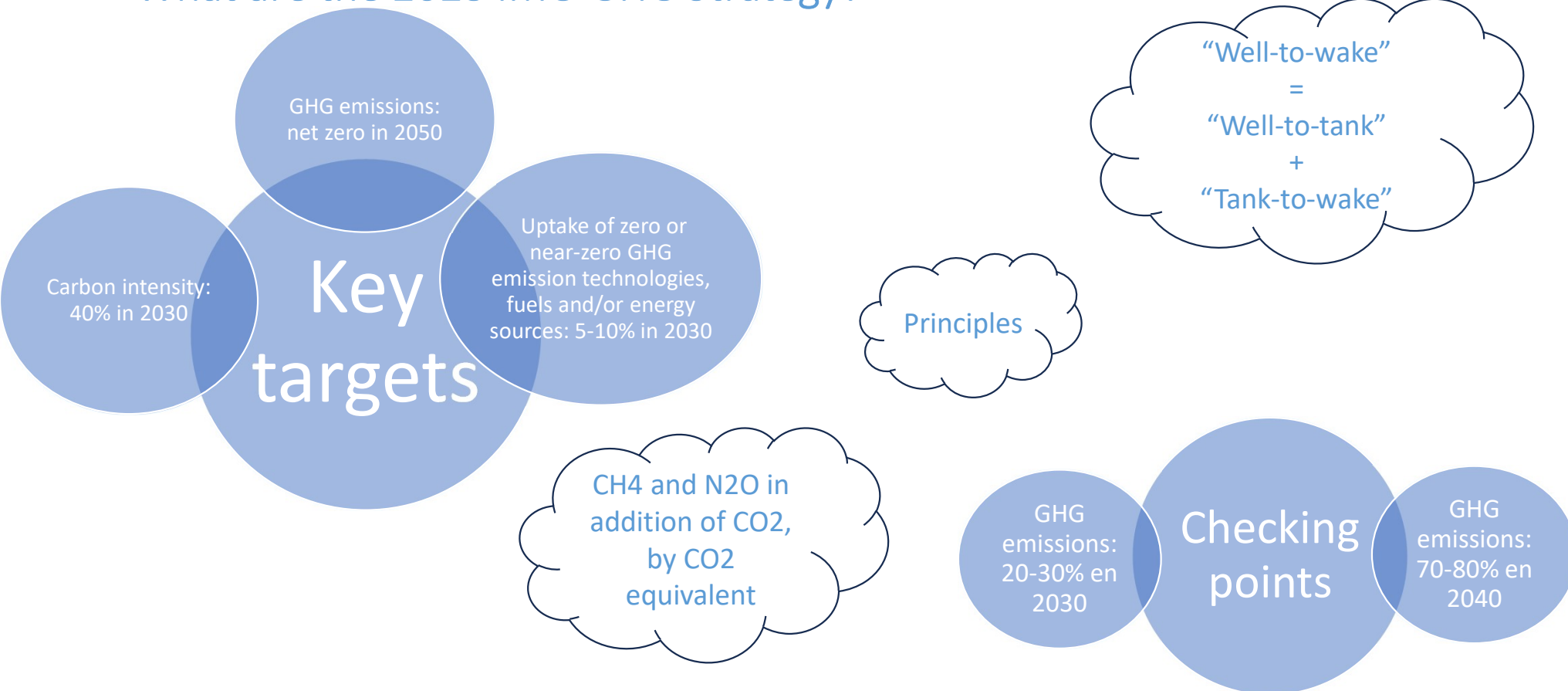
### Addressing climate change

Over a decade of **regulatory action** to cut GHG emissions from shipping



# I – Introduction: The legal framework of maritime transport decarbonization

## What are the 2023 IMO GHG Strategy?






# I – Introduction: The legal framework of maritime transport decarbonization


## What are the short-term measures?

**EEDI** ENERGY EFFICIENCY DESIGN INDEX  
IMPROVING THE TECHNICAL PERFORMANCE OF NEW BUILD SHIPS



- Ships which are designed and constructed today must be **MORE ENERGY EFFICIENT** than the baseline, thus reducing their carbon intensity
- Performance targets are increasingly stringent over time, thus **INCENTIVIZING INNOVATION** in ship design
- There are **DIFFERENT GOALS FOR DIFFERENT TYPES OF SHIPS**, recognizing the specificities of different types of ships
- For example, **THE LARGEST CONTAINER SHIPS** (>200,000 DWT) built after 1 April 2022 must be 50% more efficient than the baseline

**EEXI**  
ENERGY EFFICIENCY EXISTING SHIPS INDEX IMPROVING THE TECHNICAL PERFORMANCE OF EXISTING SHIPS



- The requirements for EEXI certification **ENTERED INTO FORCE** on 1 November 2022
- All ships are required to calculate their **Attained Energy Efficiency EXISTING SHIP INDEX (EEXI)**
- The **EEXI is a ONE-TIME CERTIFICATION** for existing ships targeting design parameters
- There are a variety of technical means to **IMPROVE THE CARBON INTENSITY** of existing ships and achieve the Required EEXI
- A **review clause** requires IMO to **REVIEW THE EFFECTIVENESS** of the implementation of the EEXI requirements, by 1 January 2026 at the latest, and, if necessary, develop and adopt further amendments

**CARBON INTENSITY INDICATOR (CII RATING)**  
IMPROVING THE OPERATIONAL PERFORMANCE OF EXISTING SHIPS



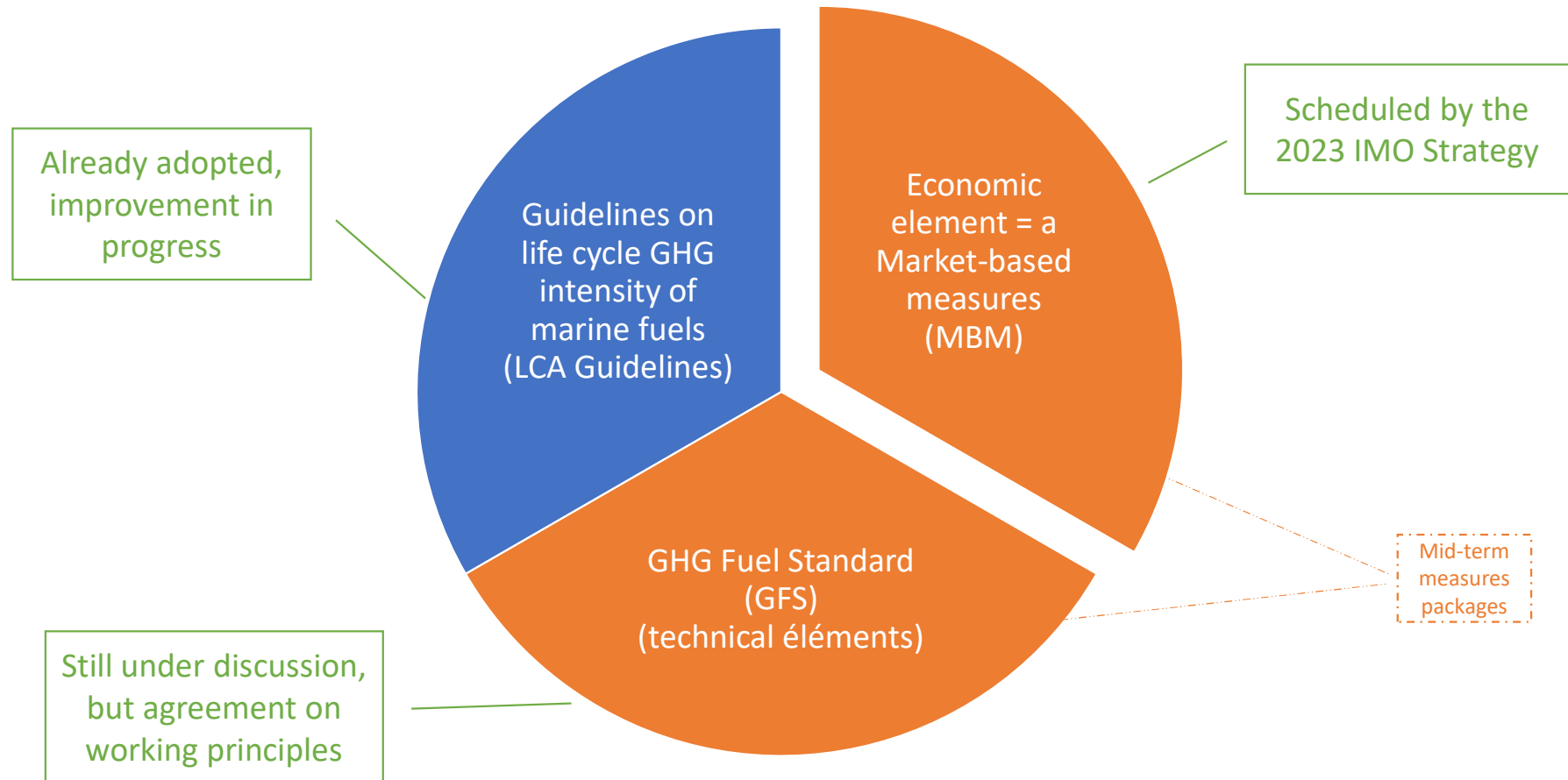
- Each year, ships of 5,000 gross tonnage and above collect and report fuel consumption data. On the basis of this data, **A CARBON INTENSITY RATING IS ASSIGNED TO THE SHIP, FROM A TO E**
- There are a variety of operational means to **IMPROVE THE CARBON INTENSITY OF EXISTING SHIPS** and achieve the Required CII, e.g.:
  - Ship speed optimization
  - Weather routing
  - Just-in-time arrival
  - Trim, draft, and ballast optimization
- Poorly rated ships have to implement **A PLAN OF CORRECTIVE ACTIONS**, and the company is regularly audited. Incentives may be provided to best rated (A/B) ships
- The requirements for CII rating **ENTERED INTO EFFECT** on 1 January 2023

Internationale Maritime Organization (IMO)

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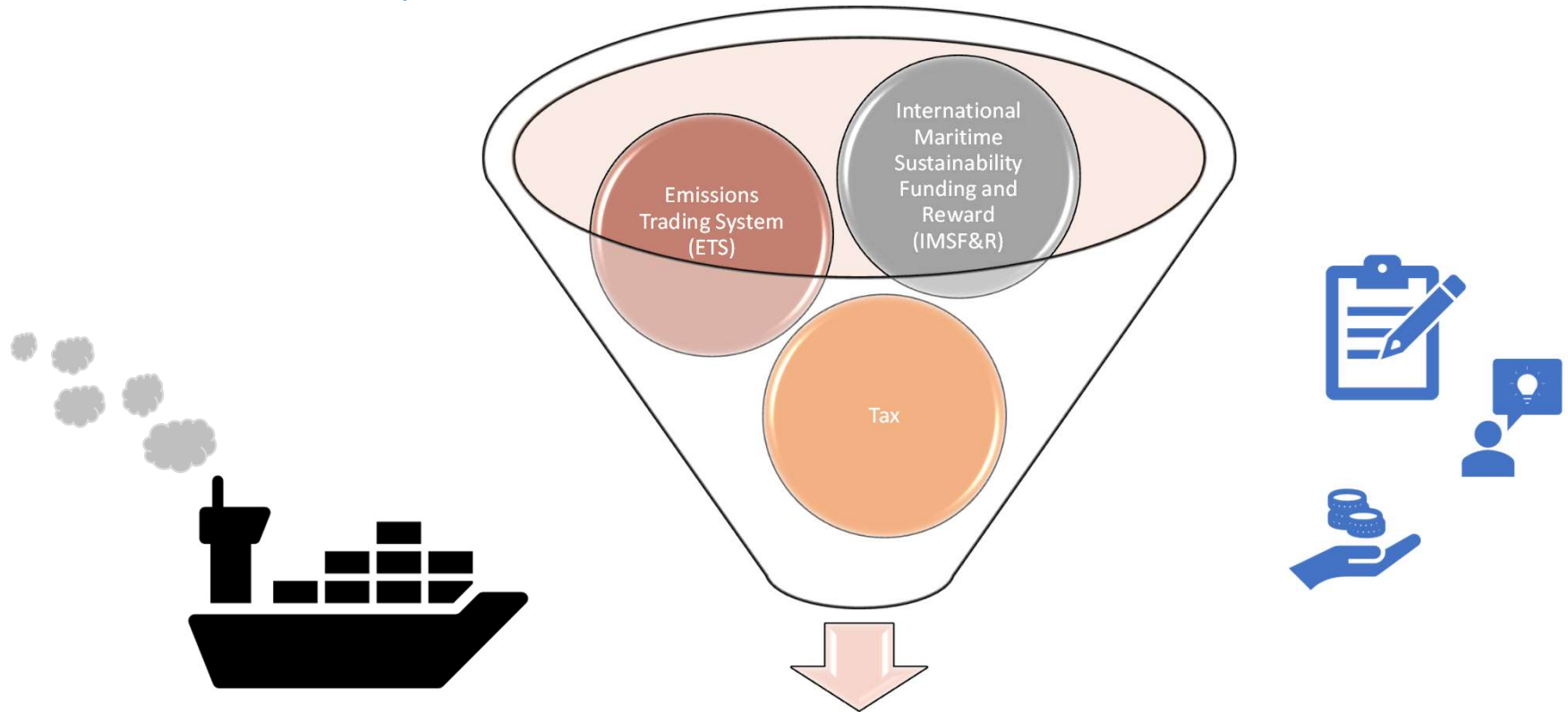
# I – Introduction: The legal framework of maritime transport decarbonization

## What are the measures to attain the 2023 IMO GHG Strategy targets?



# I – Introduction: The legal framework of maritime transport decarbonization

What are the options for a market-based-measures (MBM)?



## Proposals under discussion

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**Does IMO have the legitimacy  
to adopt an efficient MBM  
regarding its legal  
competences?**



**I – Introduction:  
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**III – The scope for  
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## II – The International Maritime organization (IMO) role and competencies

### What are State obligations regarding climate change?

United Nations  
Convention on the  
law of the sea  
(UNCLOS), 1982

Article  
194

States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary **to prevent, reduce and control pollution of the marine environment from any source**

Article  
211

States, acting **through the competent international organization** or general diplomatic conference, shall establish international rules and standards **to prevent, reduce and control pollution of the marine environment from vessels**

Article  
212

States shall adopt laws and regulations to prevent, **reduce and control pollution of the marine environment from or through the atmosphere**

## II – The International Maritime organization (IMO) role and competencies

### What are State obligations regarding climate change?

International  
Tribunal for the  
Law of the Sea



Request for an advisory  
opinion submitted by the  
Commission of small  
island states on climate  
change and international  
law, 21/05/2024

The duty to cooperate is an  
integral part of the general  
obligations under articles 194  
and 192 of UNCLOS Convention


Anthropogenic GHG  
emissions fall within  
the definition of  
marine pollution  
under the UNCLOS  
Convention

Obligations applicable  
to any source of  
pollution under article  
194 of the UNCLOS  
Convention

## II – The International Maritime organization (IMO) role and competencies

### What are the IMO and State obligations regarding climate change?

United Nations  
framework  
Convention on  
climate change,  
1992



Article 3.1

The Parties should **protect the climate system** for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities



## II – The International Maritime organization (IMO) role and competencies

What are the IMO obligations regarding climate change?

Kyoto protocol to  
the United Nations  
framework  
Convention on  
climate change,  
1997



Paris Agreement,  
2015

## II – The International Maritime organization (IMO) role and competencies

### What are the IMO competencies to fight climate change?

Convention on the  
International  
Maritime  
Organization,  
1948

Article  
1.a

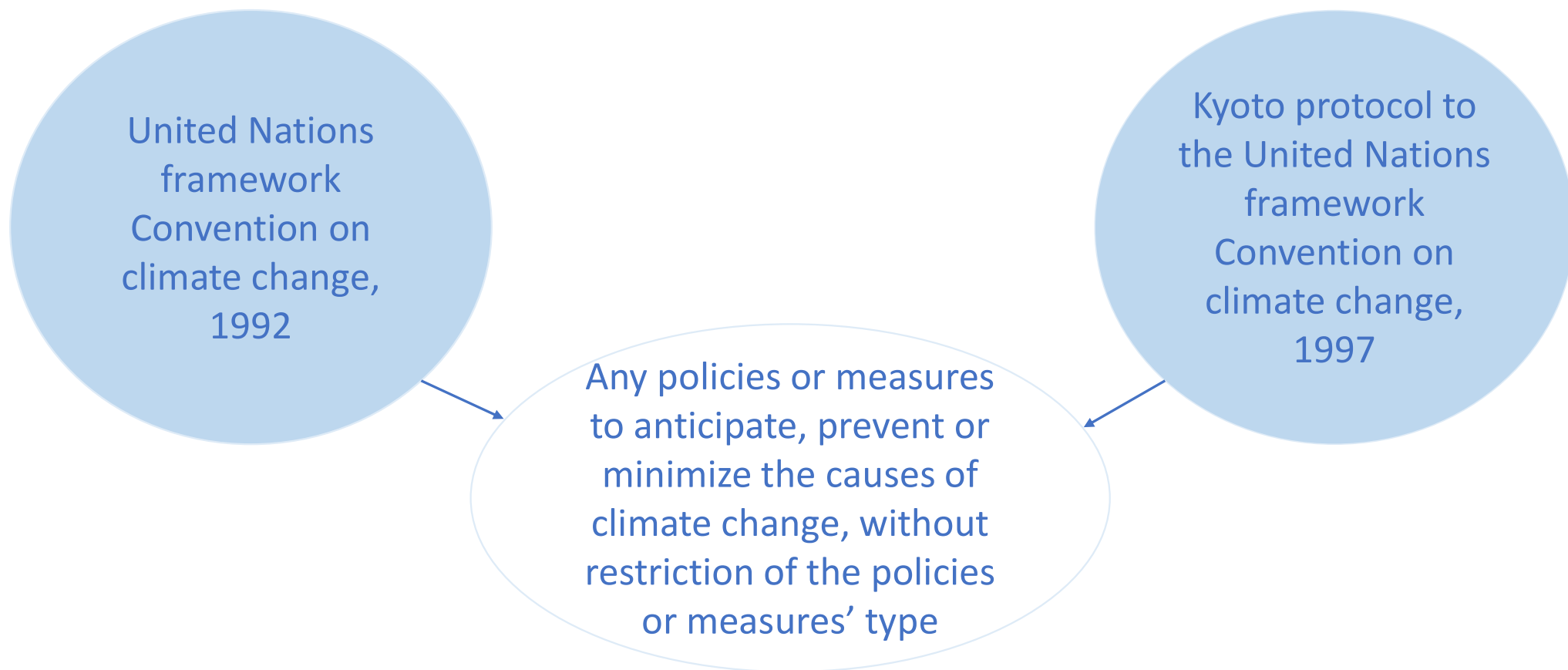
To provide machinery for co-operation among Governments [...] prevention and control of marine pollution from ships

Article  
3.b

[...] Provide for the drafting of conventions, agreements, or other suitable instruments, and recommend these to Governments and to inter-governmental organizations, and convene such conferences as may be necessary

## II – The International Maritime organization (IMO) role and competencies

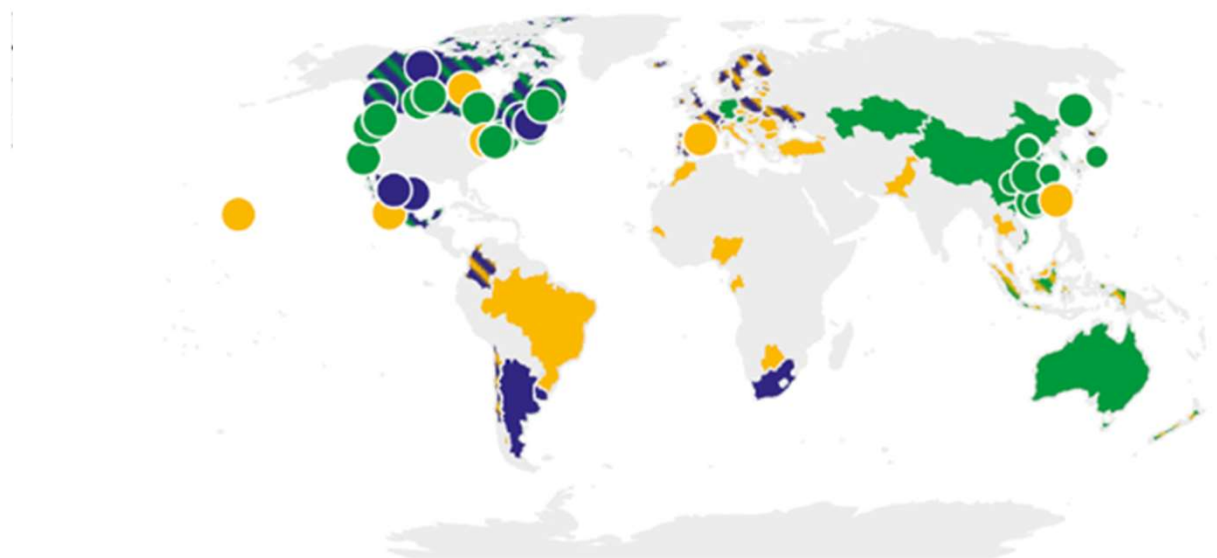
What tools can be used to reduce the climate change?



## II – The International Maritime organization (IMO) role and competencies

### What are the tools used to reduce the climate change?

Summary map of regional, national and subnational carbon pricing initiatives



23% of the  
global GHG  
emissions

74 ETS or  
carbon tax in the  
world

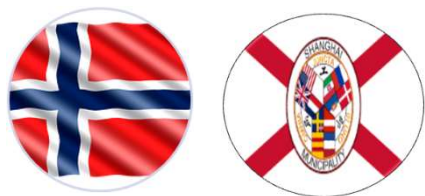
- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS and carbon tax implemented or scheduled
- ETS implemented or scheduled, ETS or carbon tax under consid...
- Carbon tax implemented or scheduled, ETS under consideration

World Bank

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## II – The International Maritime organization (IMO) role and competencies

Is there any precedent of a MBM applied to maritime transport sector?



Inland/domestic  
shipping included



Project to include  
inland shipping



Regional and  
international  
shipping included



**II – The International  
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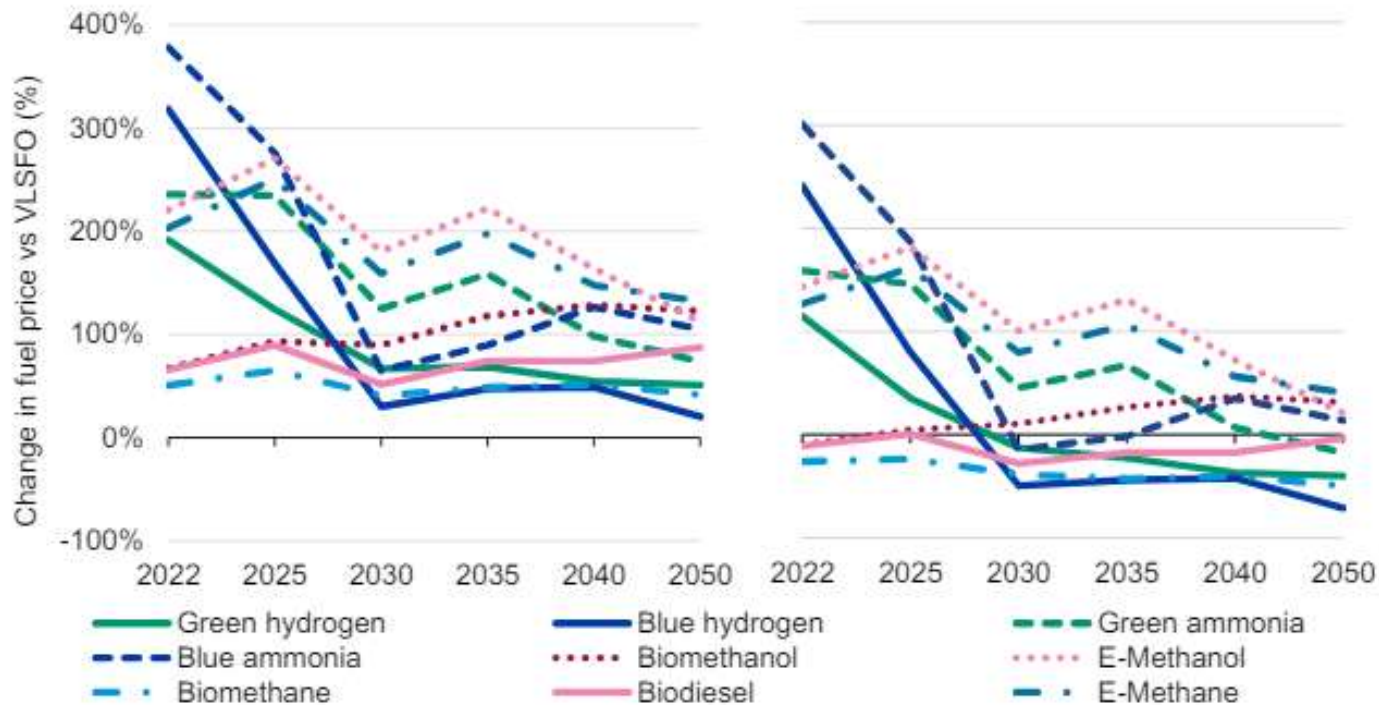
**III – The scope for  
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Market-based-  
measures (MBM)**

# III – The scope for an efficient Market-based- measures (MBM)

## What is the goal of an efficient MBM?

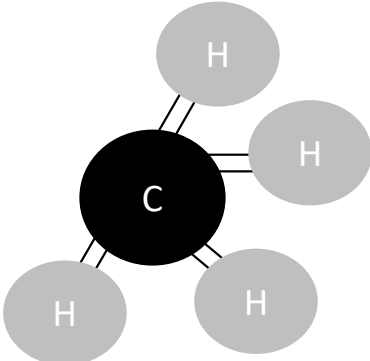
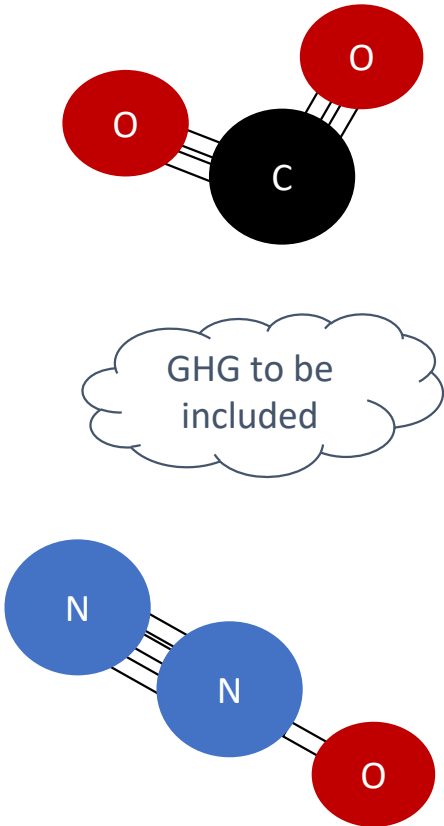
Study on the readiness and availability of low- and zero-carbon technology and marine fuels | Report for the IMO

Forecast of fuel costs relative to VLSFO after accounting for the impact of additional energy efficiency measures, without a €100/t carbon price (left), and with a €100/t carbon price (right).

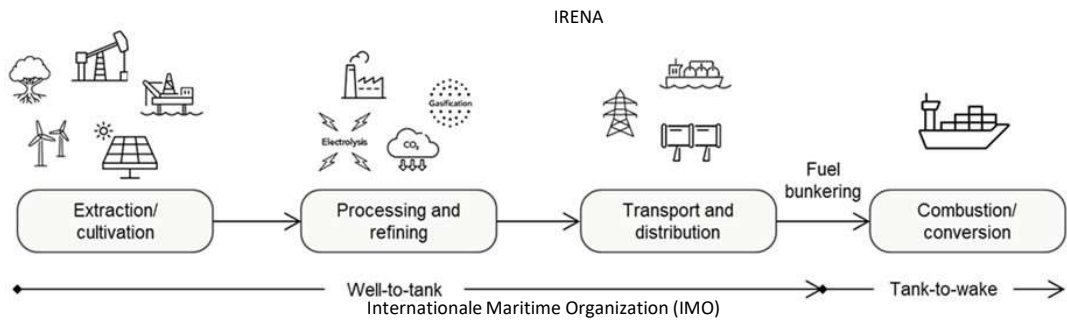


# III – The scope for an efficient Market-based-measures (MBM)

## What is the scope for an efficient MBM?



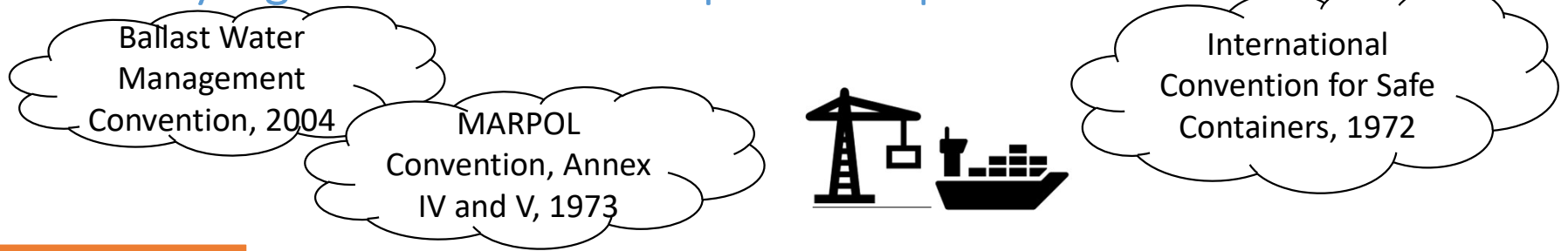
	GREY HYDROGEN	BLUE HYDROGEN	GREEN HYDROGEN
Process	Reforming or gasification	Reforming or gasification with carbon capture	Electrolysis
Energy source	Fossil fuels	Fossil fuels	Renewable electricity
Estimated emissions from the production process <sup>a</sup>	Reforming: 9 - 11 <sup>b</sup> Gasification: 18 - 20	0.4-4.5 <sup>c</sup>	0





# III – The scope for an efficient Market-based- measures (MBM)

Is there any legal restriction to adopt this scope?



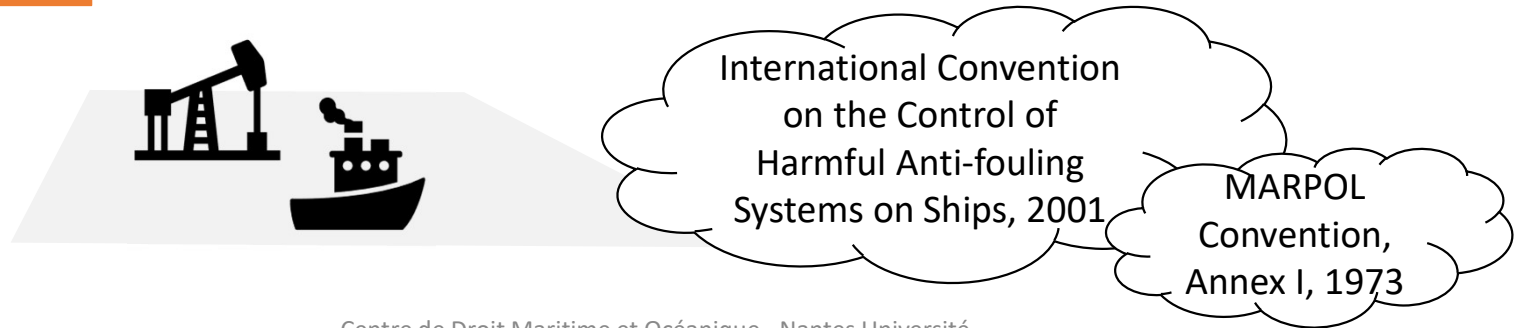
Convention on the International Maritime Organization, 1948



Use of the term "shipping"



All the relevant necessary elements for shipping activity



# III – Integration of technical maritime transport sector challenges into IMO regulations

How has the IMO utilized its competence regarding the WtW approach ?

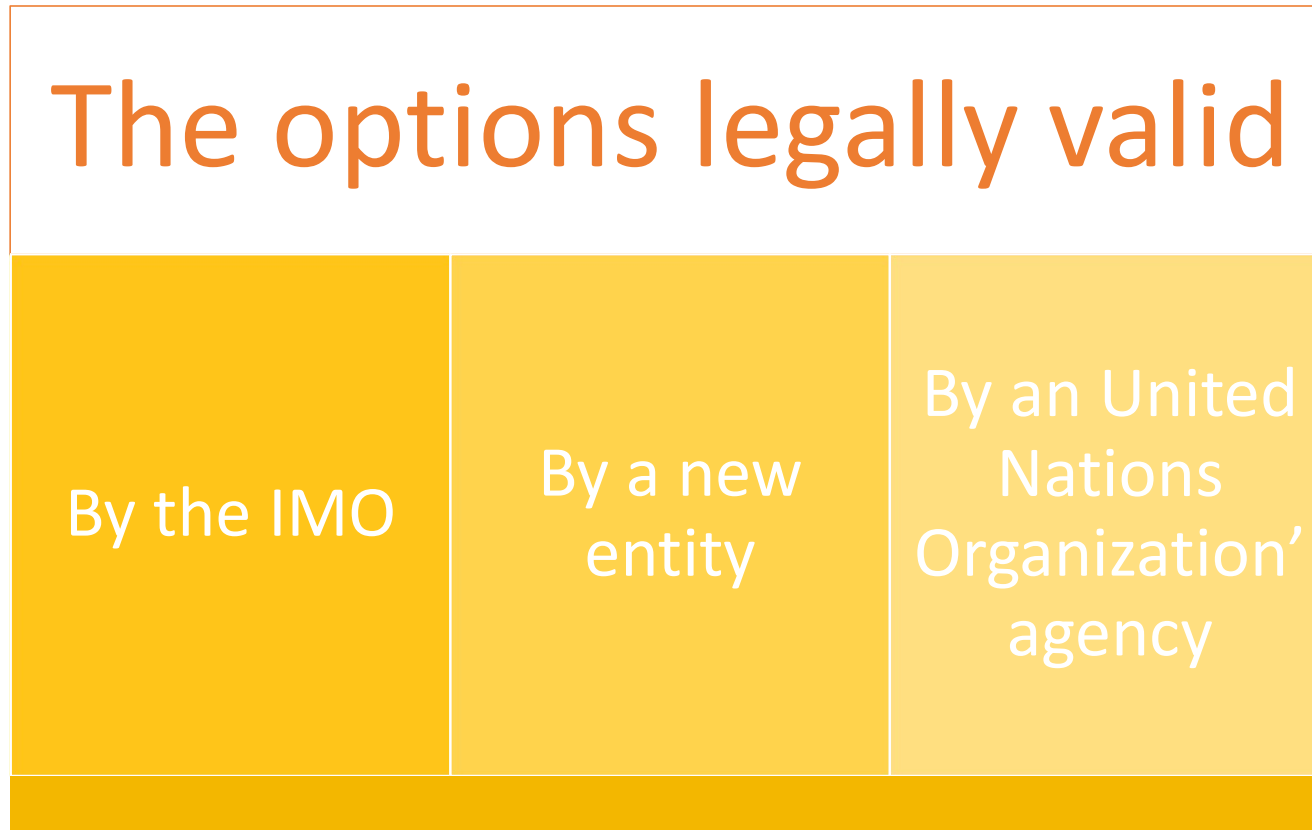
**2023 IMO GHG Strategy**

**GHG Fuel Standard (GFS)** = To gradually limit GHG intensity from fuels used by ship (indirect impact)

**Guidelines on life cycle GHG intensity of marine fuels (LCA Guidelines)** = to define the emission factor attributed to a fuel according to its production pathways (direct impact)

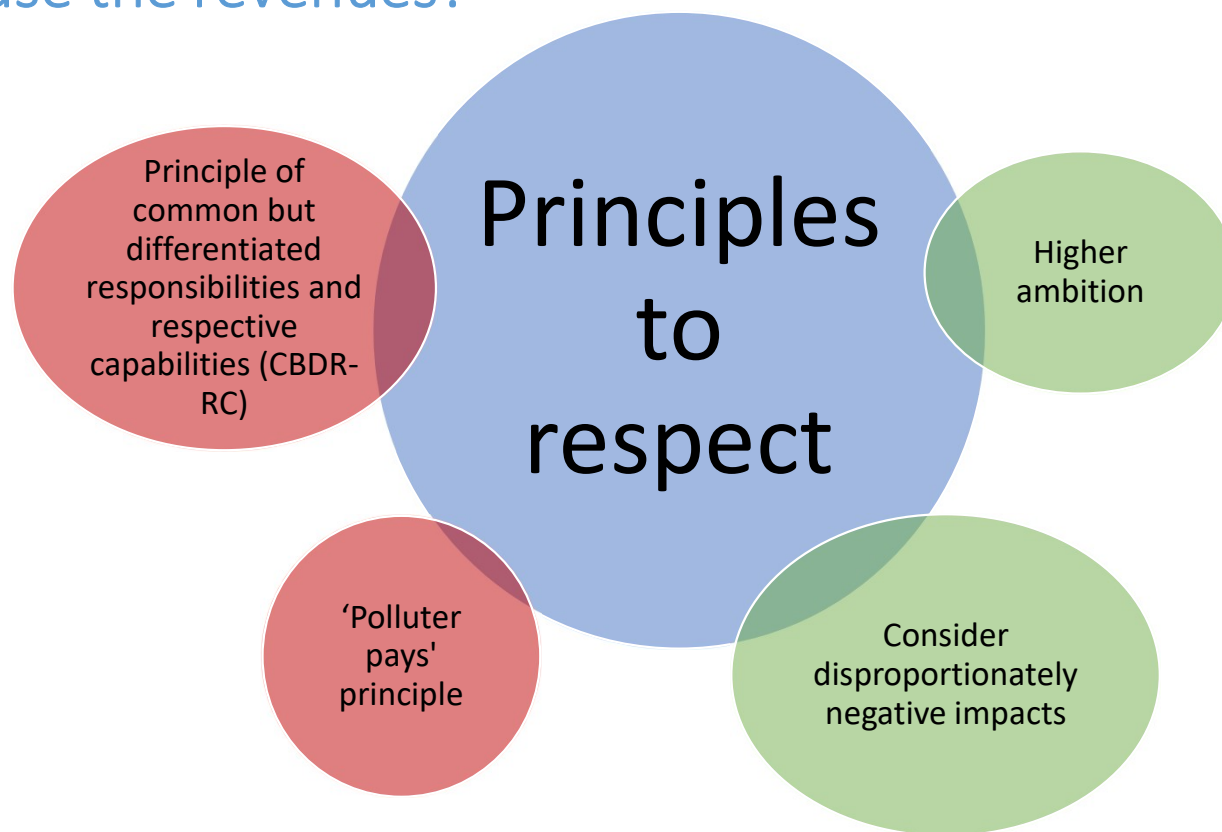
# III – Integration of technical maritime transport sector challenges into IMO regulations

Which way to administrate the MBM?



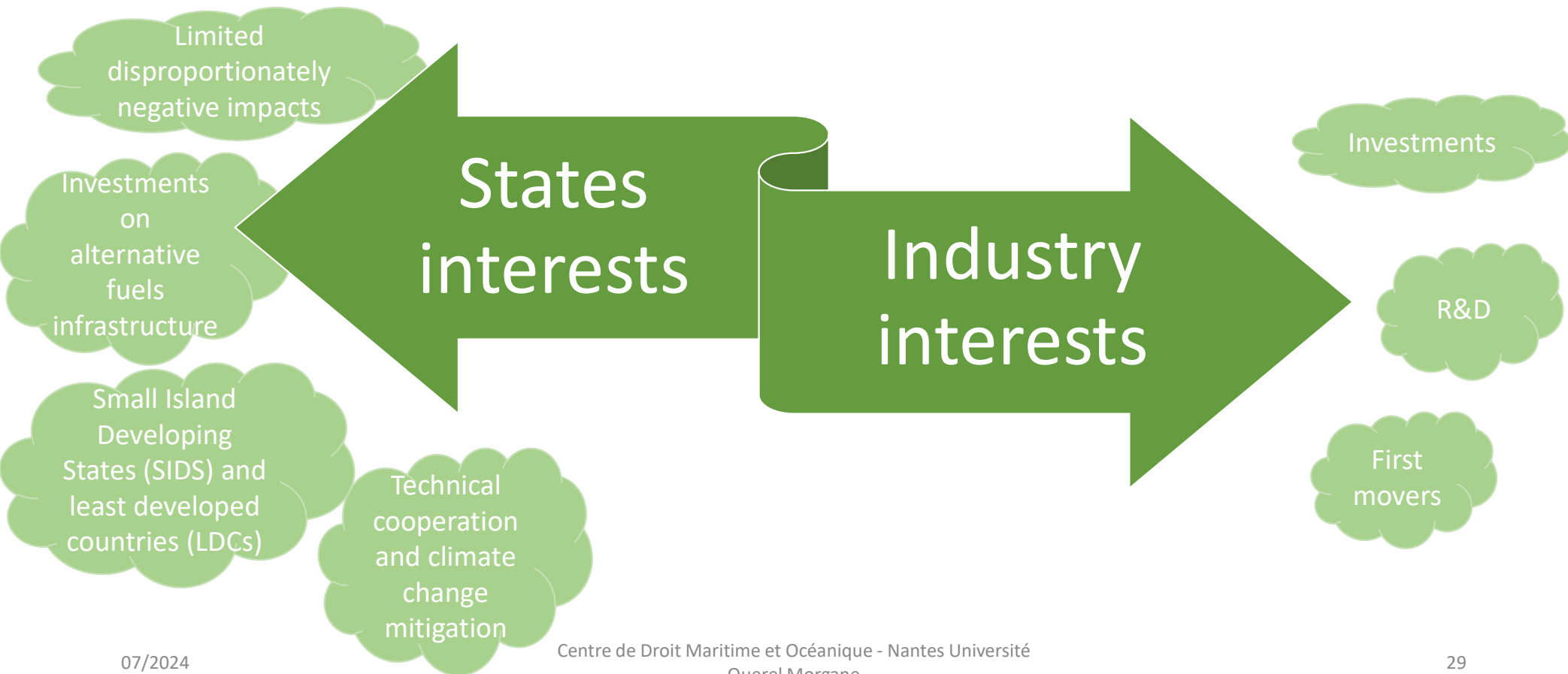
## II – The International Maritime organization (IMO) role and competencies

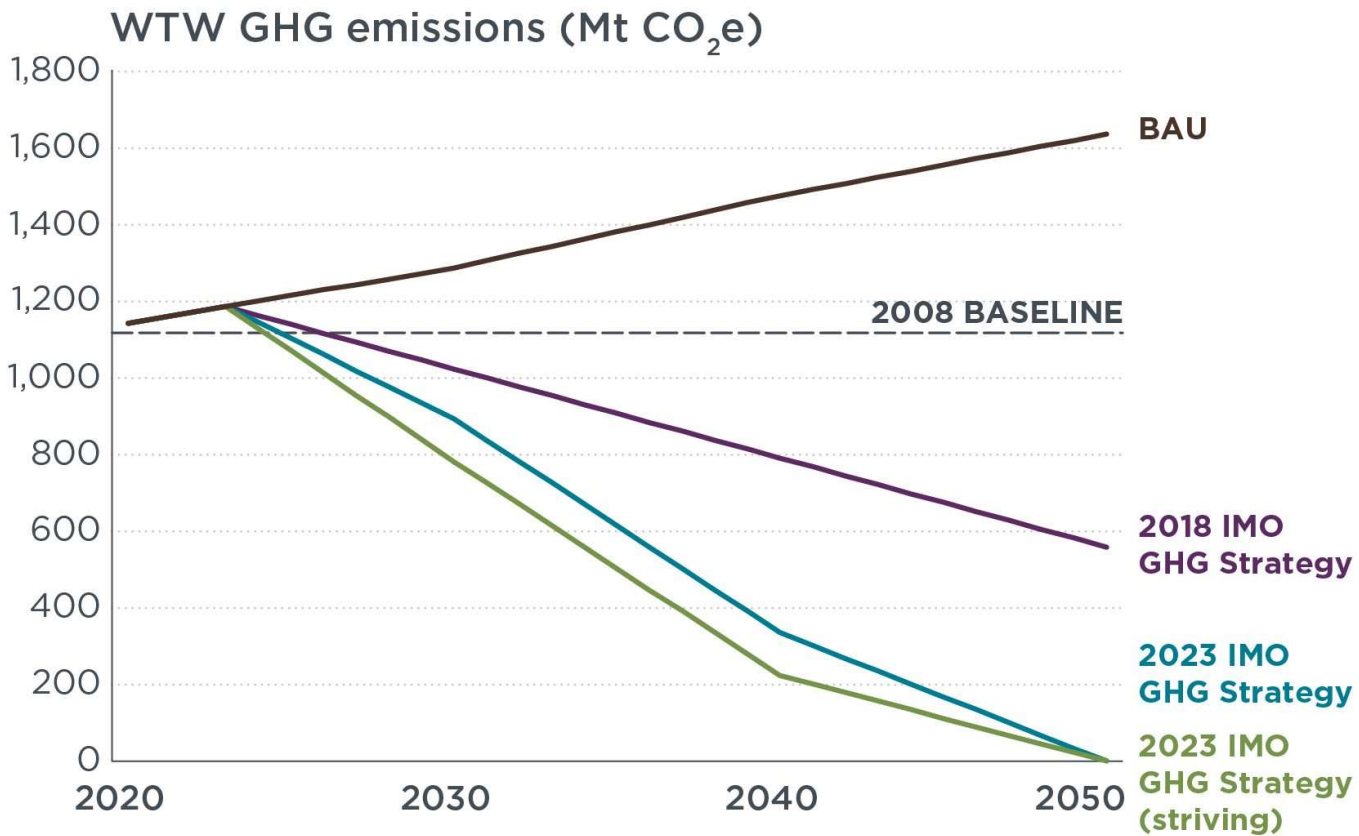
How to use the revenues?



## II – The International Maritime organization (IMO) role and competencies

How to use the revenues?





Conclusion



**Thank you**



**Querel Morgane**





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