



DanishShipping

MEPC 75

Søfartsteknisk Forening

Per Winther Christensen – Head of Technical Affairs, Danish Shipping

Agenda

- Design index for existing ships (EEXI)
- Carbon intensity rating scheme (CII's)
- Enhanced management plan (SEEMP)
- Development of Guidelines
- International Maritime Research and Development Board (IMRB)
- Accelerated EEDI schedule, HFO in the Arctic, Ballast Water etc.
- Conclusions



Design index for existing ships (EEXI)

- Applies to all existing ships > 400 GT.
- Applies from 1 January 2023
(first annual, renewal or intermediate. survey).
- EEXI is based on a required reduction factor
(expressed as a percentage relative to the EEDI baseline).
- An existing ship will have to be as efficient as a ship built in 2023.



Design index for existing ships (EEXI)

- A compliance measure will typically be the introduction of a shaft power limitation or derating.
- Guidelines for the EEXI calculation and the certification of the vessels must be developed before MEPC 76 in June 2021.
- A review must be completed by 1 January 2026 by IMO - to assess the effectiveness of the regulation.



Design index for existing ships (EEXI)

- *Danish Shipping believes that this measure will have very limited effect on the current emission level as the majority of existing vessels are not operated on full speed and therefore a power limitation will not lead to significant reductions.*
- *However, should the market pick up and the fuel price remain low, the global fleet cannot return to high speed operation and therefore the EEXI could be perceived as a cap on emissions.*

Carbon intensity rating scheme (CII's)

- Applies to all existing ships \geq 5,000 GT
- Aligned with the IMO DCS (AER).
- Annual calculation of the carbon intensity indicator (CII).
- The CII determines the annual reduction factor needed to ensure continuous improvement of the ship's operational carbon intensity within a specific rating level.

IEEC

APPENDIX X

Form of Statement of Compliance – Fuel Oil Consumption Reporting and Operational Carbon Intensity rating

STATEMENT OF COMPLIANCE – FUEL OIL CONSUMPTION REPORTING AND OPERATIONAL CARBON INTENSITY RATING

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the Party)

by.....
(full designation of the competent person or organization authorized under the provisions of the Convention)

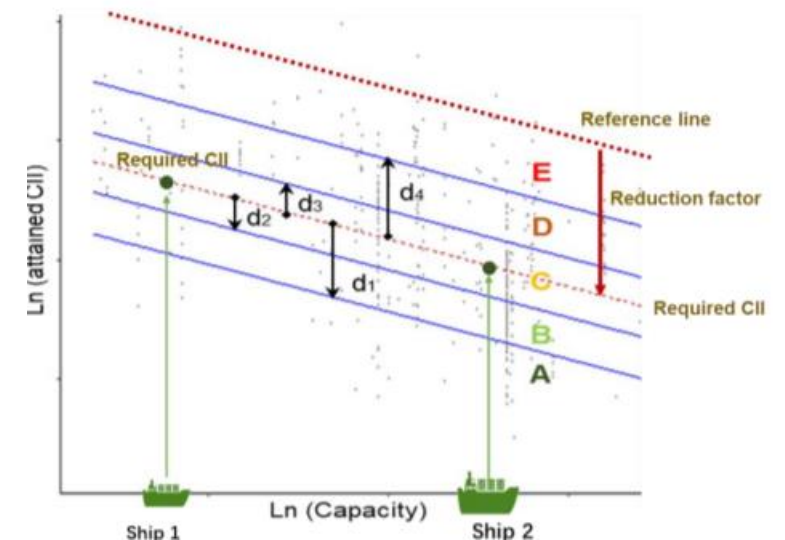
Particulars of ship¹²

Name of ship.....

Distinctive number or letters.....

Carbon intensity rating scheme (CII's)

- The rating would be given on a scale - operational carbon intensity rating A, B, C, D or E - indicating a major superior, minor superior, moderate, minor inferior, or inferior performance level.
- The performance level would be recorded in the ship's Ship Energy Efficiency Management Plan (SEEMP).



Carbon intensity rating scheme (CII's)

- A ship rated D for three consecutive years, or E, would have to submit a corrective action plan, to show how the required index (C or above) would be achieved.
- Administrations, port authorities and other stakeholders as appropriate, are encouraged to provide incentives to ships rated as A or B.



Carbon intensity rating scheme (CII's)

- Guidelines for the CII calculation (including reduction targets) and the certification of the vessels must be developed before MEPC 76 in June 2021.
- The guidelines will be compiled into a Carbon Intensity Code which will make the requirements mandatory from 2026.

Carbon intensity rating scheme (CII's)

Danish Shipping is disappointed with the ambition and design of the CII scheme for a number of reasons:

- There is not a clear consequence for ships rated D for three consecutive years, or E, i.e. the enforcement is hardly visible.*
- There is no incentive to invest in and operate class A and B vessels, i.e. no incentive to go forward and test new fuels and propulsion systems*
- It is not possible to even out performance over a fleet of vessels*

Carbon intensity rating scheme (CI's)

- *For the calculation of the efficiency, it is proposed to use the DW at the summer loadline as a proxy for actual cargo carried (AER) .*
- *The measure will not be fully implemented before 2026 and therefore it is not likely that we will meet the 2030 target of a 40% relative improvement compared to 2008.*

Enhanced management plan (SEEMP)

3 On or before 1 January 2023, in case of a ship of 5,000 gross tonnage and above, the SEEMP shall include:

- .1 a description of the methodology that will be used to calculate the ship's attained annual operational CII required by regulation 22B of this Annex and the processes that will be used to report this value to the ship's Administration;
- .2 required annual operational CII for the next 3 years, as specified in regulation 22B of this Annex;
- .3 an implementation plan documenting how the required annual operational CII will be achieved during the next 3 years; and
- .4 a procedure for self-evaluation and improvement.

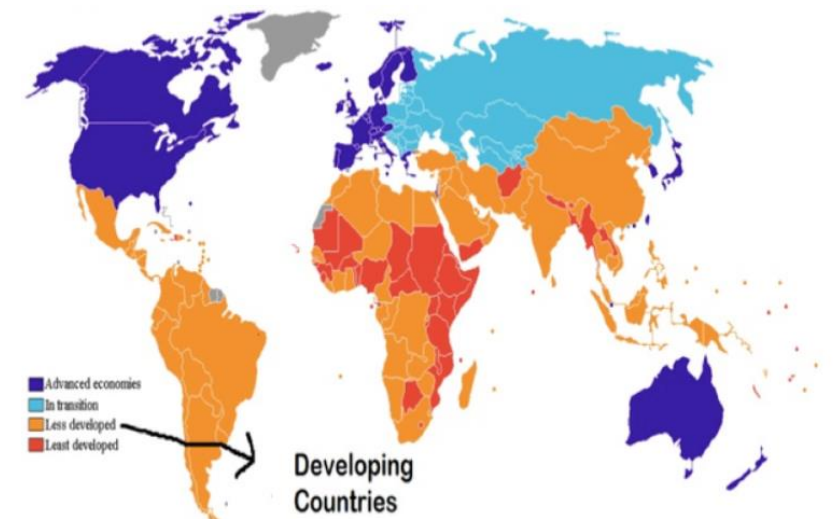
Development of Guidelines

Activity	2020	2021	2022
Amendments to MARPOL Annex VI	Approval and adoption	Acceptance and entry into force	
<i>Guidelines on the method of calculation of the attained EEXI</i>	Finalization and approval		
<i>Guidelines on survey and certification of the attained EEXI</i>	Finalization and approval		
<i>Guidelines on the Shaft/Engine Power Limitation System to comply with the EEXI requirements and use of a power reserve</i>	Finalization and approval		
<i>Guidelines on operational carbon intensity indicators and the calculation methods (CII guidelines)</i>	Development, finalization and approval		
<i>Guidelines on the reference lines for use with operational carbon intensity indicators (CII Reference line guidelines)</i>	Development, finalization and approval		
<i>Guidelines on the operational carbon intensity reduction factors relative to reference lines (CII Reduction factor guidelines)</i>	Development, finalization and approval		
<i>Guidelines on the operational carbon intensity rating of ships (CII Rating Guidelines)</i>	Development, finalization and approval		
<i>Update of 2016 Guidelines for the development of a Ship Energy Efficiency</i>			

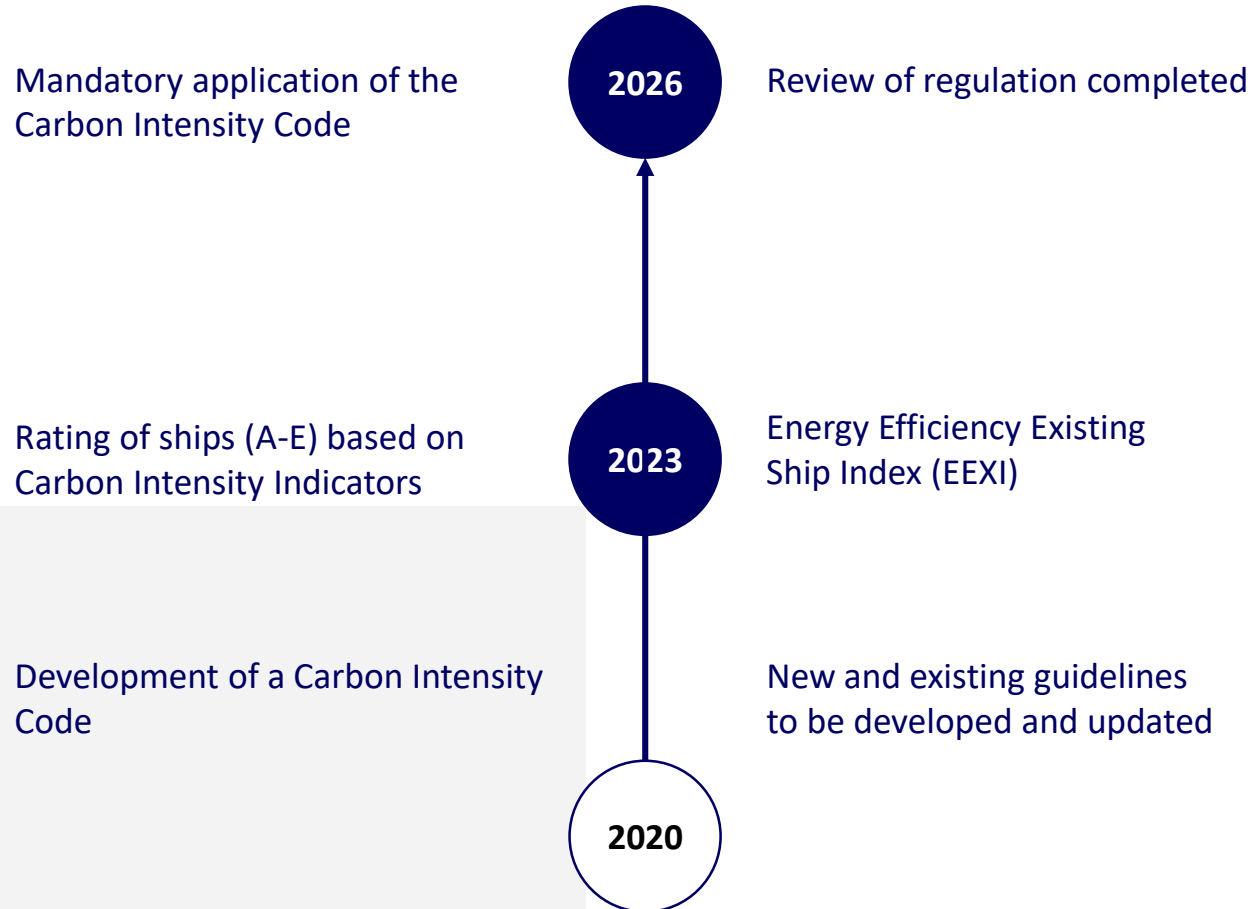
Group headed by:
China
Japan
EU

Development of Guidelines

- Impact Assessment to be repeated – to measures combined
- Impact on SIDS and LDC's is a reoccurring issue



Development of Guidelines



The Ship Energy Efficiency Management Plan (SEEMP) subject to external audit and statutory certification from 2023

International Maritime Research and Development Board (IMRB)

- Submitted by ICS, BIMCO, INTERTANKO, INTERCARGO, IPTA, INTERFERRY and WSC.
- In general support but many reservations:
 - Legal, governance, distribution of funds, MBM questions etc.
- Submitters encourage to submit further papers at MEPC 76

Accelerated EEDI schedule, HFO in the Arctic, Ballast Water etc.

EEDI:

- New EEDI phase 3 reduction requirements adopted
- In force 1 April 2022 (due to delayed MEPC 75)
- Affect inter alia Container vessels, LNG carriers, General cargo ships, some Gas carriers, some Passenger ships – but not Bulk, Tank, RoRo, RoPax.

Accelerated EEDI schedule, HFO in the Arctic, Ballast Water etc.

HFO in Arctic:

- Committee approved the draft amendments to MARPOL Annex I, introducing a prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters.
- Adoption at MEPC 76 and then into force 1 July 2024.

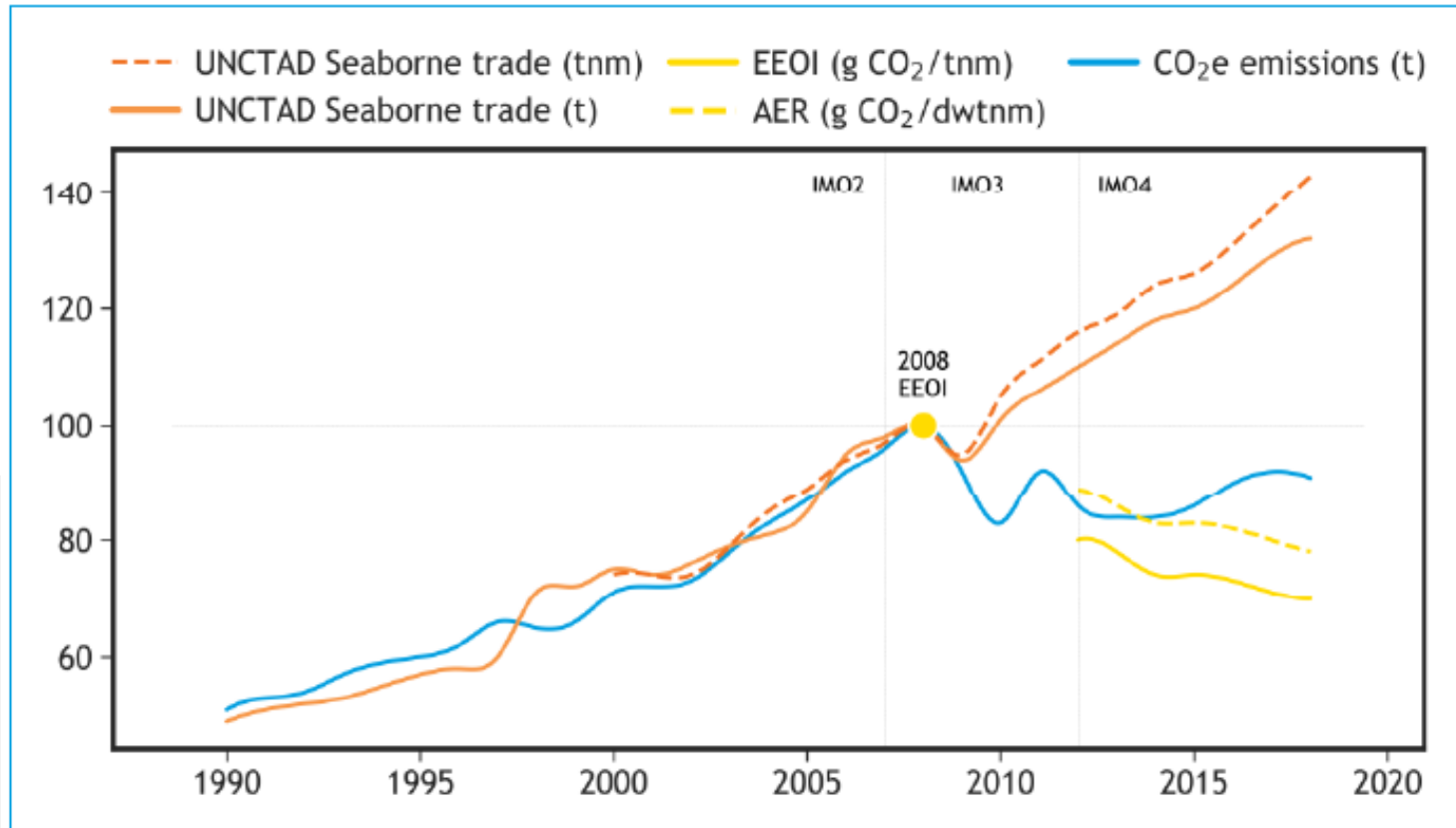


Accelerated EEDI schedule, HFO in the Arctic, Ballast Water etc.

IMO GHG Study:

- The 4th IMO GHG study was approved
- Shows increasing total emissions from shipping – (now 2.9% of global emissions) and less increase in transport demand.
- Will be important for the work on establishing the baseline in 2008.
- It also shows a positive development – i.e. decoupling between seaborne trade/transport and emissions.

Accelerated EEDI schedule, HFO in the Arctic, Ballast Water etc.



Accelerated EEDI schedule, HFO in the Arctic, Ballast Water etc.

Ballast Water Management Convention:

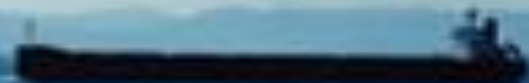
- MEPC 75 adopted the amendments to the BWM Convention regarding:
 - Commissioning testing of ballast water management systems
 - The form of the International Ballast Water Management Certificate.
- A circular will be issued

Conclusions

- *Very difficult circumstances for a meeting (5 x 3 hours)*
- *Disappointing result:*
 - *Many issues left to be defined via guidelines – will it be manageable?*
 - *Weak enforcement, no incentive to innovation and late implementation*
 - *No option for fleet averaging*
 - *Will meet the 2030 goal?*
- *Discussion in IMRB revealed huge resistance towards MBM's*

Questions?

Per Winther Christensen – Head of Technical Affairs, Danish Shipping



The Challenge



↳ 3% of the global CO₂ emissions is approx. the same as Germany + France

The Ambitions

IMO's ambition

International shipping must be **40%** more efficient in 2030 compared to 2008

The total emission must be reduced to **50%** in 2050 compared to 2008

EU's ambition

55-60% reduction in 2030 compared to 1990

EU **climate neutral** no later than 2050

Danish government ambition

70% reduction in 2030 compared with 1990

Denmark must be **climate neutral** no later than 2050