The IMO Strategy - Reconciling different views and interests

Sveinung Oftedal
Specialist Director
Key question
At what time is it more important to solve the challenge than protecting negative consequences on the existing economy?
What is a ship?
### Mandatory Audits of Member States

### Port State Rights

### Flag State Obligation

#### Environmental Challenges of shipping

<table>
<thead>
<tr>
<th>Area restrictions</th>
<th>Life Cycle</th>
<th>Illegal spills</th>
<th>Operational discharges /emissions</th>
<th>Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emissions to air</td>
<td>Interiors and stored materials</td>
<td>Cargo vapour</td>
<td>Cargo residues</td>
<td>Ballast Water</td>
</tr>
<tr>
<td></td>
<td>Hazardous cargo</td>
<td>Fouling</td>
<td>Oil and oily mixture</td>
<td>Anti-fouling</td>
</tr>
<tr>
<td></td>
<td>Wrecks</td>
<td>Waste Reception</td>
<td>Cargo residues</td>
<td>Sewage</td>
</tr>
<tr>
<td></td>
<td>Ship recycling</td>
<td></td>
<td></td>
<td>Garbage</td>
</tr>
<tr>
<td></td>
<td>Survey and certification Documentation</td>
<td></td>
<td></td>
<td>Oil and oily mixture</td>
</tr>
<tr>
<td></td>
<td>Operational requirements</td>
<td></td>
<td></td>
<td>Mammal Collision</td>
</tr>
<tr>
<td></td>
<td>Emission Standards</td>
<td></td>
<td></td>
<td>Equipment/Product/Fuel</td>
</tr>
<tr>
<td></td>
<td>Design and Construction</td>
<td></td>
<td></td>
<td>Design and Construction</td>
</tr>
</tbody>
</table>

### Design and Construction

- Equipment/Product/Fuel
- Operational requirements
- Emission Standards

### Operational requirements

- Survey and certification Documentation
- Operational requirements

### Emission Standards

- Flag State Obligation
- Port State Rights
- Mandatory Audits of Member States

### Port State Rights

- Flag State Obligation
- Mandatory Audits of Member States

### Flag State Obligation

- Port State Rights
- Mandatory Audits of Member States

### Mandatory Audits of Member States

- Port State Rights
- Flag State Obligation

---

**Cargo residues**

**Interiors** and **stored materials**

**Hazardous cargo**

**Cargo vapour**

**Wrecks**

**Waste Reception**

**Ship recycling**

**Underwater Noise**

**Mammal Collision**

**Collision**

**Environmental Challenges**

**Accidents**

**Operational discharges /emissions**

**Illegal spills**

**Life Cycle**

**Area restrictions**

**Flag State Obligation**

**Survey and certification Documentation**

**Design and Construction**

**Equipment/Product/Fuel**

**Operational requirements**

**Emission Standards**
The regulatory framework for shipping

Global

Regional

Local

IMOs role in global solutions
GOVERNANCE AT THE INTERNATIONAL MARITIME ORGANISATION: THE CASE FOR REFORM

A leading role in a society going through fast changes
Different perspectives - also at the IMO

• Opinion A: “Shipping is always a soft target”

• Opinion B: “Shipping is always the last target”
Climate Change – Global change
The IMO mandate on GHG emissions established through the 1997 MARPOL Conference Resolution 8 on “CO2 emissions from ships” Sept 1997


Norway proposes to establish an emission target for international shipping March 2004 (MEPC 51)

MARPOL requirements on energy efficiency enters into force January 2013

Amendments to MARPOL Annex VI adopted – the data collection system for fuel oil consumption of ships MEPC 70 (Oct 2016)

Roadmap for developing an IMO Strategy on GHG emissions reduction – agreed MEPC 70 (Oct 2016)

Amendments to MARPOL Annex VI – the data collection system for fuel oil consumption of ships entered into force March 2018

Tony De Brum (MI): Proposal to establish a GHG emission reduction target for international shipping consistent with keeping global warming below 1.5°C MEPC 68 May 2015

IMO Strategy on Reduction of GHG emissions from ships – Adopted April 2018 (MEPC 72)

Important IMO Achievements on Climate Change

Key Challenges
"Vision – levels of ambition – guiding principles"

Meaningful strategy – vs – meaningless strategy

Ambition:
High Ambition – vs – No Ambition

Efficiency only! – vs – efficiency for the ship and efficiency for the sector and reduction of total emissions

Numbers – vs – No numbers

Principles:
Differentiation – vs – No differentiation
Demand for Seahorn transport will grow 37% towards 2050.

The performance of each individual ship needs to improve significantly in order to reduce the total environmental burden of shipping.

Average growth of 2%/yr to 2030, then 0.2%/yr towards 2050.

Source: DNV GL
We stand here at one of the most historic moments in IMO. A major step forward in global action to combat climate change. Work must now continue on further steps. #MEPC72

teight sector has delivered! The agreement reached this week at the @IMOHQ is a significant step forward in the global efforts to tackle #ClimateChange. Work must now continue on further steps. #MEPC72

evropa.eu!wC68RK

It's possible — but difficult — to halve shipping emissions, official says

"Ambitions for 50 percent reduction by 2050 are definitely difficult, but it's achievable. And now we have a situation where we really have to start with developing green shipping that we need for the future," Norway's Minister of Climate and Environment Ola Elvestuen said.

Andrew Wong
Published 12:34 AM ET Fri, 27 April 2018

Climate-Changed Nations Strike Historic Deal to Curb Shipping Emissions

By Anna Hickman and Jeremy Hodges
13. April 2018 16.11 Updated on 13. April 2018 17.00

Industry agrees to cut emissions by at least 50% by 2050
U.S., Russia and Small-Armed States object to emissions proposals

Most of the world’s nations agreed to an historic deal that for the first time will limit emissions from the global shipping industry.
Important elements of the Initial GHG Strategy

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 in this century.

Extract from the Ambition

.1 carbon intensity of the ship to decline through implementation of further phases of the energy efficiency design index (EEDI) for new ships to review with the aim to strengthen the energy efficiency design requirements for ships with the percentage improvement for each phase to be determined for each ship type, as appropriate;

.2 carbon intensity of international shipping to decline to reduce CO2 emissions per transport work, as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008; and

.3 GHG emissions from international shipping to peak and decline to peak GHG emissions from international shipping as soon as possible and to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008 whilst pursuing efforts towards phasing them out as called for in the Vision as a point on a pathway of CO2 emissions reduction consistent with the Paris Agreement temperature goals.
**IMO – Follow-up actions on Climate Change**

<table>
<thead>
<tr>
<th>2018-2023</th>
<th>2023-2030</th>
<th>2030 →</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action plan</td>
<td>Development of measures such as:</td>
<td>Development of measures such as:</td>
</tr>
<tr>
<td>Initiate GHG-study</td>
<td>Energy efficiency</td>
<td>Provisions for low-carbon and zero-carbon fuels</td>
</tr>
<tr>
<td>Approach to Impact on States</td>
<td>Implementation programme for uptake of low-carbon and zero-carbon fuels</td>
<td>Adoption of new and innovative emission reduction mechanism(s)</td>
</tr>
<tr>
<td>Development of measures such as:</td>
<td>New and innovative emission reduction mechanism(s)</td>
<td>Develop revised GHG strategy</td>
</tr>
<tr>
<td>- Energy efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Assess fuels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Tech. Cooperation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- National Action Plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop revised GHG strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Programme of Follow-up Actions of the Initial IMO Strategy on Reduction of GHG Emissions from Ships up to 2023

## Annex

<table>
<thead>
<tr>
<th>Streams of activity</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEPC 73</strong></td>
<td><strong>MEPC 74</strong></td>
<td><strong>MEPC 75</strong></td>
<td><strong>MEPC 76</strong></td>
<td><strong>MEPC 77</strong></td>
<td><strong>MEPC 78</strong></td>
<td><strong>MEPC 79</strong></td>
</tr>
<tr>
<td><strong>Candidate short-term measures (Group A) that can be considered and addressed under existing IMO instruments</strong></td>
<td>Invite concrete proposals</td>
<td>Consideration of proposals</td>
<td>Consideration and decisions on candidate short-term measures that can be considered and addressed under existing IMO instruments e.g. further improvement of the existing energy efficiency framework with a focus on EEDI and SEEMP, ITCP³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Candidate short-term measures (Group B) that are not work in progress and are subject to data analysis</strong></td>
<td>Invite concrete proposals</td>
<td>Consideration of proposals</td>
<td>Consideration and decisions on candidate short-term measures that are not work in progress and are subject to data analysis, consistent with the Roadmap³</td>
<td>Data analysis, in particular from IMO Fuel Oil Consumption DCS</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Candidate short-term measures (Group C) that are not work in progress and are not subject to data analysis</strong></td>
<td>Invite concrete proposals</td>
<td>Consideration of proposals</td>
<td>Consideration and decisions on candidate short-term measures that are not work in progress and are not subject to data analysis e.g. National Action Plans guidelines, lifecycle GHG/carbon intensity guidelines for fuels, research and development²</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Candidate mid-/long-term measures and action to address the identified barriers</strong></td>
<td>Invite concrete proposals</td>
<td>Consideration of proposals including identification of barriers and action to address</td>
<td>Progress made and timelines agreed on the development of mid- and long-term measures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Impacts on States⁴</strong></td>
<td>Invite concrete proposals</td>
<td>Finalization of procedure</td>
<td>Measure-specific impact assessment, as appropriate, consistent with the Initial Strategy, in particular paragraphs 4.10 to 4.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fourth IMO GHG Study</strong></td>
<td>Scope</td>
<td>Initiation of the Study</td>
<td>Progress report</td>
<td>Final report</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capacity-building, technical cooperation, research and development</strong></td>
<td>Development and implementation of actions including support for assessment of impacts and support for implementation of measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Follow-up actions towards the development of the revised Strategy</strong></td>
<td>Ship fuel oil consumption data collection pursuant to regulation 22A of MARPOL Annex VI (DCS)</td>
<td>Initiation of revision of the Initial Strategy taking into account IMO DCS data and other relevant information</td>
<td></td>
<td>Adoption of revised Strategy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

² Includes ongoing work pursuant to regulation 21.6 of MARPOL Annex VI.

³ "In aiming for early action, the timeline for short-term measures should prioritize potential early measures that the Organization could develop, while recognizing those already adopted, including MARPOL, Annex VI requirements relevant for climate change, with a view to achieving further reduction of GHG emissions from international shipping before 2023" (paragraph 4.2 of the Initial Strategy).

⁴ Assessment of impacts on States to be undertaken in accordance with the procedure to be developed by the Organization.
Reduction of greenhouse gas (GHG) emissions will be the main challenge for shipping in the next decades.

- A range of alternative fuels and technologies are available for ships to reduce CO$_2$ emissions.
- Their potential for this purpose varies widely, depending on the primary energy source, the fuel processing, the engine type/converter, and the supply chain.
- While focusing on GHGs, it is vital to recognize the footprint of other types of emission from alternative fuels and technologies; mainly NOx, SOx, and PM.

Source: DNV GL
Welcome to DNV GL's Alternative Fuels Insight platform

Map
Explore the development of bunkering infrastructure for alternative fuels. You can also see where ships using alternative fuels and technologies are already operating.

Statistics
Get detailed insights to the uptake of alternative fuels and technologies on ships. Filter on ship types, region, technology and more to create your own graphs.

Supporters
Alternative fuels insight has been made possible by co-funding by our supporters.

Our supporters are industry pioneers and market leaders that see the importance of alternative fuels in the maritime industry. Here you can learn more about them and get in contact with their experts.
<table>
<thead>
<tr>
<th>&quot;To our advantage&quot;</th>
<th>&quot;Can be resolved&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Planet is living!</td>
<td>Air Pollution</td>
</tr>
<tr>
<td>The institutional framework (IMO) is present</td>
<td>Ballast water / biofouling</td>
</tr>
<tr>
<td>Present resources, technologies and science is advancing rapidly</td>
<td>Ocean pollution</td>
</tr>
<tr>
<td></td>
<td>Ship recycling</td>
</tr>
<tr>
<td></td>
<td>Underwater noise</td>
</tr>
</tbody>
</table>

At what time is it more important to solve the challenge than protecting negative consequences on the existing economy

<table>
<thead>
<tr>
<th>&quot;New reality&quot;</th>
<th>&quot;Major challenge – Major decisions&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geopolitical changes</td>
<td>Climate change</td>
</tr>
<tr>
<td>Information and communication</td>
<td>Microplastics</td>
</tr>
<tr>
<td></td>
<td>Catch up with technology</td>
</tr>
</tbody>
</table>
IMO – leading on environmental challenges
Three pillar action

National spearhead policies
- to introduce low/zero emission technologies and fuels

Development and implementation of the IMO legal framework
- to ensure need emission reductions from international shipping

Technical Co-operation
- to ensure the required progress at the IMO and full implementation

Thank you for your attention!