

Switzerland – an important maritime hub

The need for adopting a mid-term measure at the International Maritime Organisation (IMO)

I. Introduction

As 90 % of world trade is carried by ships, maritime shipping is considered as the backbone of international trade and the global economy¹. Although Switzerland is a landlocked country, it has an important maritime sector. According to the latest statistics, among maritime nations, Switzerland ranks 9th in the world and 4th in Europe in terms of gross tonnage². With a fleet of approximately 3500 ships in ownership and/or under charter (time or voyage) at any given point, and an equivalent volume of approximately 1,5 billion metric tons, Swiss commercial shipping contributes a considerable share to the value added and employment in the Swiss economy.

The shipping industry employs about 2,000 people in Switzerland and the direct contribution to national GDP is estimated at CHF 2.4 billion.

In addition, the maritime sector plays a central role in Switzerland as a leading commodity trading hub. The latter is employing more than 10,000 people and contributing 4.8% to the Swiss GDP i.e. estimated at CHF 33.7 billion, as well as 20% of the tax revenue of the cantons of Geneva and Ticino and 17% of the tax revenue of the canton of Zug.

Approximately 65 Shipping and Shipping services companies are located in 12 cantons, most of them based in Geneva, Zurich, Basel, Vaud, Ticino and Zug. In addition, Switzerland is the headquarter of major players in this activity, such as the second largest container-ship operator in the world, shipowners, charterers, and companies that provide related maritime services. **These actors constitute the building blocks that enable the movement of essential commodities around the world and meet the global economy's supply and demand, even during the COVID-19 pandemic**, which has been having a major impact on global supply chains causing shortages of consumer products and significant delays.

The Swiss machinery and equipment manufacturers serve as supply industry to the international shipbuilding sector incl. ship maintenance and by that, the maritime economy has further indirect effects through this industry.

A **Shipowner** is the full owner and operator of a commercial vessel. The owner can either operate the ship himself or entrust his ship to another party, for example a charterer.

Chartering is an activity whereby a shipowner hires out the use of their vessel to a charterer who hires the ships, or space on the ships, to move the various cargoes. The three most common charter categories are voyage, time, and bareboat charter.

A **time-charter operator** is usually a company that takes a vessel on long term period charter with the intent to operate it in the market as an owner and fix the vessel finding spot cargoes.

¹ https://unctad.org/system/files/official-document/rmt2020_en.pdf.

² <https://www.news.admin.ch/news/message/attachments/65460.pdf>.

The aim of this White Paper is two-fold:

1. Considering Switzerland's importance as a maritime hub, the White Paper aims to show the advantages of adopting a comprehensive Swiss maritime strategy (section II), to define its role and position with respect to international laws and standards on global IMO emission targets. It would equally be relevant to reiterate Switzerland's vision on reducing greenhouse gas emissions in the international maritime transport sector, in line with Switzerland's long-term climate strategy³.
2. The White Paper also aims to summarize the current discussions at the IMO (section III) and demonstrates the urgent need for evaluating proposals on mid-term measures (section IV), in order to achieve the IMO emission reduction targets. To be a driver of positive change, the Swiss shipping community, together with STSA member companies, should spearhead an ambitious global decarbonization coalition, with the required support of the industry and the Swiss Maritime Navigation Office, urging the IMO to adopt an effective global mid-measure as soon as possible.

II. Adopting a comprehensive Swiss maritime strategy

Maritime transport emits around 940 million tonnes of CO₂ annually and is responsible for about 2.5% of global greenhouse gas (GHG) emissions⁴. To combat climate change and to support the UN Sustainable Development Goal 13, the IMO plays a vital role. In 2018, the IMO adopted an initial strategy⁵ on the reduction of GHG emissions from ships, setting out a vision which confirms its commitment to reducing GHG emissions from international shipping and to phasing them out as soon as possible. The IMO targets call for a reduction in carbon intensity of at least 40% by 2030 compared to 2018 and a reduction in total annual greenhouse gas emissions of at least 50% by 2050 compared to 2008. To achieve these targets, the initial strategy refers to a range of candidate short-, mid- and long-term measures that will be considered by the IMO. Short-term measures are meant to be finalized and agreed between 2018 and 2023; mid-term measures, between 2023 and 2030; and long-term measures, beyond 2030.

Current discussions at the IMO focus **on short-term measures**, which are meant to be finalized and agreed between 2018 and 2023.

Even though the IMO planned to agree on **mid-term measures** between 2023-2030, certain mid- and long-term measures will require work to already commence prior to 2023.

Long-term measures are envisaged to be adopted beyond 2030.

When the IMO adopted these targets in 2018, it intended to pursue a pathway of CO₂ emissions reductions consistent with the Paris Agreement temperature goals. According to the latest IMO Greenhouse Gas (GHG) study, GHG emissions from shipping (expressed in CO₂ equivalents) have increased from 977 million tonnes in 2012 to 1076 million tonnes in 2018. Despite efficiency gains fully offset by the continued

³ <https://www.news.admin.ch/news/message/attachments/65879.pdf>.

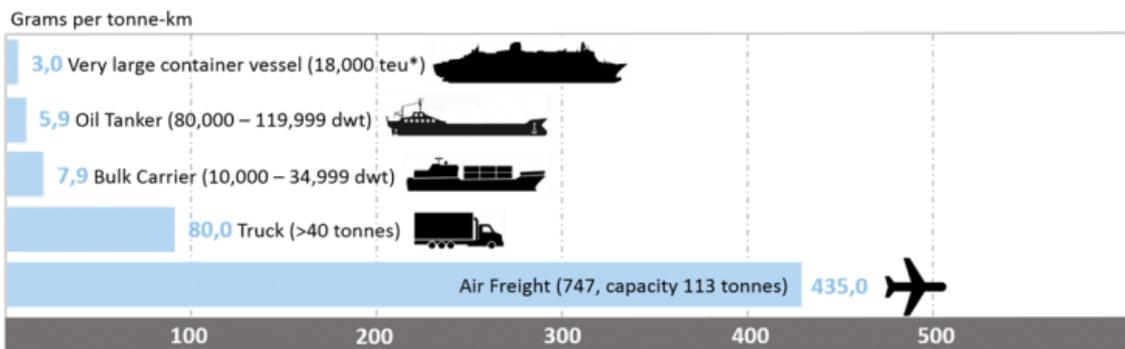
⁴ <https://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Greenhouse-Gas-Studies-2014.aspx>.

⁵ <https://www.imo.org/en/MediaCentre/PressBriefings/Pages/06GHGinitialstrategy.aspx>.

growth of shipping, shipping emissions are predicted to increase further between 50 and 250% by 2050 – depending on future economic and energy developments, including the predicted increase in world sea-borne trade⁶. Such a large gap between projections and reductions needed, would undermine the objectives of the Paris Agreement and the internationally agreed goal of keeping global temperature increase to well below 2 degrees Celsius above preindustrial levels⁷ (1850-1900).

The EU's climate targets are more ambitious than those of the IMO, setting an intermediate target of an at least 55% net reduction in greenhouse gas emissions by 2030 compared 1990 levels and aiming to eliminate its net emissions by 2050. As a result, any further slowdown in the pace of the IMO negotiations will justify more unilateral action by the EU, such as the inclusion of emissions from ships in the EU Emissions Trading System from January 2022⁸. There is a risk that other regions, for example in North and South America and in Asia begin following such a regional approach and develop their own region-specific regulations, which would have a negative impact and higher administrative burden on ocean freight.

COMPARISON OF TYPICAL CO₂ EMISSIONS BETWEEN MODES OF TRANSPORT



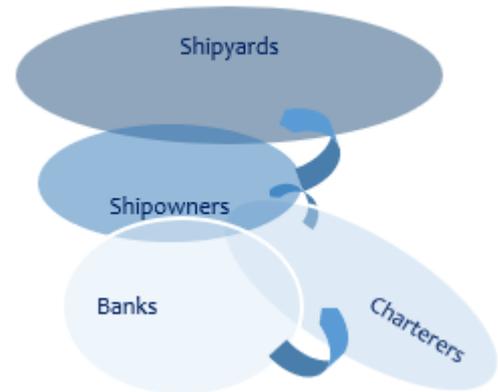
A “patchwork quilt” of regional measures is a poor substitute for a universal regime adopted under the IMO umbrella and is likely to raise the risk of loopholes and a two-tier market structure.

⁶ <https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Third%20Greenhouse%20Gas%20Study/GHG3%20Executive%20Summary%20and%20Report.pdf>.

⁷ https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

⁸ https://ec.europa.eu/clima/policies/transport/shipping_en.

Global regulations are also needed to create an international level playing field for shipowners and charterers alike. A dialogue between shipowners and charterers is even more important, since the vessel building specificities are informed by charterers demands, who in turn are forced to respond to their bank's requirements. Especially the charterers are in a strong position to understand the impact of shipping regulations and will be the ones to respond to them to deliver on climate change. A comprehensive Swiss maritime strategy is not only necessary to form the basis for such a multi-stakeholder dialogue to be effective but also to enhance legal certainty for all stakeholders.



III. Current discussions at the IMO

Current discussions focus on possible short-term measures as outlined in the Initial IMO Strategy, despite having recognized that certain mid- and long-term measures will require work to already commence prior to 2023. It is also widely acknowledged that the below-mentioned short-term measures do not move the industry sufficiently towards net zero. The following short-term measures are currently discussed within the framework of the IMO:

The IMO has already adopted binding technical and operational measures to improve the energy efficiency of ships and reduce greenhouse gas emissions, including the **Energy Efficiency Design Index (EEDI)** for newly built ships. Since 2013, the EEDI requires ships to meet a minimum level of energy efficiency per ton-mile. It provides a specific target figure for individual ship types, calculated based on the vessel's technical design parameters. Based on this, ships can develop a Ship Energy Efficiency Management plan (SEEMP) to improve energy efficiency onboard.

The **Energy Efficiency Existing Ship Index (EEXI)**, will, upon its entry into force on 1 January 2023, oblige in-service vessels above 400 GT (gross tonnage, a measurement of ship volume) to meet certain energy efficiency requirements⁹. It will measure the efficiency of the design and will essentially be a “comply or not comply” measure, which does not foresee a benefit for ships that go beyond the rule.

Another measure that has been adopted is the **Carbon Intensity Indicator (CII)**, applicable to in-service ships of over 5000 GT. These vessels will be required to quantify and report on carbon emissions from operations. The CII provides ship operators with the factor by which they must reduce CO₂ emissions annually to ensure continuous improvement and comply with regulations. Once it comes into effect in 2023, the CII will be used to rate ships on a 5-grade scale: A, B, C, D and E—from best- to least-performing. Ship design upgrades or significant operational improvements will be required of any vessels receiving a “D” rating three years in a row or for vessels receiving a grade of “E” during any annual review.

In 2019, as part of the candidate short-term measures, the international shipping industry submitted several proposals to the IMO for an International Maritime Research and Development Board (IMRB), to create a Research and Development Board and Fund, financed by a global tax of USD 2 per metric tonne

⁹ <https://www.imo.org/en/MediaCentre/PressBriefings/pages/36-ISWG-GHG-7.aspx>.

on all bunker fuels. According to the estimates in the IMRB proposal, the funds would amount to approximately USD 5 billion over a 10-year period and be used for research and development purposes. If agreed, the IMRB proposal is unlikely to have an impact on market behaviour. Indeed, in its impact analysis, it is concluded that the proposal would neither significantly affect fuel costs nor likely have a material impact on incentivising the development of alternative fuels. Furthermore, the private sector is likely to allocate much greater resources to relevant research and development than the amount mentioned.

Although it has legitimately been acclaimed as the least environmentally damaging means of transportation, shipping has heeded the call for more radical change and made positive strides through collaborative emission-reduction initiatives, and some private operators are now even calling for a more ambitious horizon of zero-carbon-shipping. And yet, today the sector is struggling to identify a clear way forward. In this context, the emission reduction targets set by the IMO may seem unattainable if States, including Switzerland, do not support more drastic, mid-term measures now.

IV. The need for a mid-term measure

While the above short-term efficiency gains are necessary, they cannot improve emission profiles by more than 15-20% combined and are therefore insufficient to tackle the real transition from fossil-fuels to decarbonization. At the latest IMO Marine Environment Protection Committee (MEPC) 76 meeting, governments adopted a work plan to develop mid- and long-term measures to further cut shipping's GHG emissions.

The work plan consists of three main phases:

- Phase I – Collation and initial consideration of proposals for measures (Spring 2021 to spring 2022);
- Phase II – Assessment and selection of measures(s) to further develop (Spring 2022 to spring 2023); and
- Phase III – Development of(a) measure(s) to be finalized within (an) agreed target date(s).

Even though commencing discussions on a work plan for mid- and long-term measures is long overdue, the considerable amount of further work that will be necessary to agree on a viable mid-term measure should not be underestimated. Consequently, the IMO should no longer delay their consideration and start immediate deliberations on mid-term measures.

a. Qualities of a good mid-term measure

One of the candidate mid-term measures mentioned in the initial IMO strategy is a market-based measure (MBM). An MBM is an instrument that uses price and markets to incentivise greenhouse gas emitters to reduce their emissions. Taxes, subsidies, and emissions-trading schemes are examples of market-based measures. MBMs place a price on GHG emissions and serve two main purposes:

1. Providing an economic incentive for the maritime industry to reduce its fuel consumption by investing in more fuel-efficient ships and technologies and to operate ships in a more energy efficient-manner (in-sector reductions); and
2. offsetting in other sectors of growing ship emissions (out-of-sector reductions)¹⁰.

¹⁰ <https://www.imo.org/en/OurWork/Environment/Pages/Market-Based-Measures.aspx>.

The IMO has given serious consideration to market-based measures since 2006. As far back as 2009, the IMO MEPC recognised that technical and operational measures, such as EEDI, EEXI and CII would not satisfactorily reduce greenhouse gas emissions from international shipping in view of world trade growth projections. An overwhelming majority of members agreed at the time that a market-based measure is needed as part of a comprehensive package of measures for the effective regulation of greenhouse gas emissions from international shipping¹¹. An MBM is more efficient at giving the industry a clear path to the agreed goals and should be supported.

The following qualities of a good mid-term measure may be used as a lens through which Switzerland could evaluate any future proposals submitted to the IMO:

Universal enforceability

Transparency

Creation of a level-playing field

- It is important to adopt global legal requirements instead of several regional measures.
- The IMO's challenging role is to create a global regulatory framework to advance its decarbonization targets, all while addressing and accommodating the concerns of developing countries, especially small island developing States (SIDS) and least developed countries (LDCs). Consideration should be given to the fact that States have different levels of capacity and responsibility, which will evidently affect States' abilities to contribute to the global effort. A key element of avoiding disproportionate impacts would be for the IMO to communicate clearly and collaborate with other UN bodies.

Closing the gap

- Decarbonization targets need to try and close the gap with those of the EU and the Paris Agreement. A future mid-term measure should aim to be more ambitious than current IMO ambitions, but less ambitious than some of the industry players.

Mechanism to allow some vessels to decarbonize faster than others

- To close the gap between the diverging climate goals and to ultimately achieve them, a multispeed transition seems inevitable. Such an approach would give way for the ambitious to move faster than the less ambitious, and not oblige everyone to move at the same pace. Enabling a multispeed transition is especially important for an international organisation with such diverse member States and that is based on consensus decision-making, like the IMO.

Quantifiable annual targets

- The proposal should provide for a measure that provides the industry with clarity on what needs to be achieved in decarbonization by year, instead of defining 2030 or 2050-targets only.

Quantifiable targets by vessel category

- The proposal should provide for a measure that provides the industry with clarity on what needs to be achieved in decarbonization by vessel category.

b. Evaluation of the existing mid-term measures

The proposal from the Marshall and Solomon Islands includes a mandatory high ambition levy on all greenhouse gas (GHG) emissions from international shipping as an immediate priority measure. More specifically, the co-sponsors of this proposal call for greater urgency and increased ambition and note that since the Initial Strategy level of ambition was agreed, science concurs that much greater ambition

¹¹ Ibid.

is required across all sectors to limit the temperature increase to 1.5 degree Celsius¹². According to the proposal, an evidence-based approach now requires that IMO must, in its Revised Strategy, significantly update its interim level of ambition and ensure that its 2050 GHG emissions pathway is in line with the Paris Agreement temperature goals.

The ultimate price at which a levy achieves transformational change is currently unknown. The current evidence implies this likely requires a price on all GHG emissions in the range of USD 250-300 tonne carbon dioxide equivalent on heavy fuel oil by 2030¹³. A low entry rate is unlikely to have any marked or noticeable impact. The co-sponsors therefore propose an entry level by 2025 of USD 100 per tonne with upward ratchets on a **5-yearly review cycle**. Even though below the necessary USD 250-300 tonne price, it would still enable take-up, if some portion of revenues raised are reinvested into the sector's decarbonization and used in subsidizing research, development, and deployment (RD&D). The co-sponsors of this proposal suggest that the **mitigation of impacts be addressed via the process used for disbursement of revenue generated by the levy**. To do so, the co-sponsors propose that revenue collected be divided into:

- 1) a fund to support climate change mitigation and adaptation efforts in vulnerable countries, administered under the mandate of the UN Framework Convention on Climate Change (UNFCCC), for which a potential candidate could be the existing Green Climate Fund (GCF),
- 2) a separate fund to subsidize RD&D of new technologies and fuels administered under the mandate of IMO.

The co-sponsors note also that the cost and efficacy of the subsidization of RD&D incentivization can likely be greatly improved through the **inclusion of a "feebate" or similar mechanism to reward first movers and innovators**.

The measure would **not discriminate between ships, or types of bunker to ships (except with respect to their GHG emissions)**. The levy would be **mandatory and universal**. Exemptions would be discouraged. All ships of all flags would be levied equitably on all fossil fuels bunkered. No ship would be treated more favourably than another.

c. Advantages of an ambitious Swiss position

"Home" to many international organisations and some of the world's largest private operators and charterers, Switzerland has grown into a hub and force for innovation in shipping. Several Switzerland-based companies instigated, drove, or supported several recent global sustainable shipping initiatives, such as the Sea Cargo Charter, the Poseidon Principles, the Neptune Declaration, the ISC's carbon levy proposal, the partial feebate proposal and the Sustainable Shipping Initiative's Ship Recycling Transparency Initiative. **By adopting a more ambitious position and supporting proposals for an enforceable and transparent measure that creates a level-playing field and allows for a multispeed transition defining annual targets by vessel category, Switzerland would be able to drive positive change in line with agreed climate goals.** This would allow Switzerland to develop its position at the IMO and to improve its attractive place for commodity trading companies and shipowners.

¹² https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_Low_Res.pdf.

¹³ <https://www.trafigura.com/media/2752/a-proposal-for-an-imo-led-global-shipping-industry-decarbonisation-programme.pdf>.

V. Conclusion

Along the path toward a sustainable future, business opportunities will exist on the condition that we create an ordered, fair, and ambitious global framework for the decarbonization of shipping.

Therefore, the Swiss shipping community, together with STSA member companies should spearhead a global decarbonization coalition and assist in the development of a robust Swiss maritime flag and cluster with the required support of the industry and the Swiss Maritime Navigation Office, urging the IMO to adopt an effective global mid-measure as soon as possible.

With growing scrutiny over climate issues from the civil society, financiers, international organisations (notably the Green Climate Fund, and the WEF Call to Action, to make net-zero commitments and to turn commitments into action ahead of COP26) and governments themselves, who are setting bold new climate targets (notably 2060 carbon neutral China, itself the leading maritime powerhouse), aligning on a concrete mid-term measure and obtaining decisive diplomatic support at the IMO should become an urgent priority for Switzerland. The industry and STSA have realised the urgency of decarbonization.

Now it is time that the industry and policymakers act, collaborate and exploit the expertise of the Geneva-based international organisations, to achieve the needed change.

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