

# Future Prospects for the Swiss Flag and Fleet at Sea

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## **Federal Department of Foreign Affairs FDFA**

Directorate of International Law DIL

Swiss Maritime Navigation Office SMNO

Created by:



**Institut für Seeverkehrswirtschaft und Logistik**  
**Institute of Shipping Economics and Logistics**

In collaboration with:

**Prof. Dr. Suzette V. Suarez**



**Institut für Seeverkehrswirtschaft und Logistik**  
**Institute of Shipping Economics and Logistics**

**Contact:**

Universitätsallee 11/13  
28359 Bremen  
Germany

Tel.: +49 421 22096 0  
Fax: +49 421 22096 55  
[www.isl.org](http://www.isl.org)

**Contact Persons:**

**Prof. Dr. Burkhard Lemper**

E-Mail: [lemper@isl.org](mailto:lemper@isl.org)  
Tel.: +49 421 22096 63

**Hendrik Jungen**

E-Mail: [jungen@isl.org](mailto:jungen@isl.org)  
Tel.: +49 421 22096 75

**Christoph Hluchy**

E-Mail: [hluchy@isl.org](mailto:hluchy@isl.org)  
Tel.: +49 421 22096 85

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## Glossary

CLCS	Commission on the Limits of the Continental Shelf
dwt	Deadweight tonnage
FDFA	Swiss Federal Department of Foreign Affairs
GT	Gross tonnage
GVA	Gross value added
ILO	International Labour Organization
IMDG-Code	International Maritime Code for Dangerous Goods
IMF	International Monetary Fund
IMO	International Maritime Organization
ISA	International Seabed Authority
ISL	Institute of Shipping Economics and Logistics
ITLOS	International Tribunal for the Law of the Sea
MARPOL	International Convention for the Prevention of Marine Pollution from Ships 1973/1978
MLC	Maritime Labour Convention, 2006
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic, 1992
Paris MoU	Paris Memorandum of Understanding
SMNO	Swiss Maritime Navigation Office
SNB	Swiss National Bank
SOLAS	International Convention for the Safety of Life at Sea, 1974 as amended
SSA	Swiss Shipowners Association
STCW	Standards of Training, Certification and Watchkeeping for Seafarers
STSA	Swiss Trading & Shipping Association
Tokyo MoU	Tokyo Memorandum of Understanding
UNCLOS	United Nations Convention on the Law of the Sea, 1982

# 1 Introduction

## 1.1 Background and Actuality

The Swiss flag at sea is under pressure. The global shipping crisis had a major impact on Swiss shipping companies and the owners of Swiss merchant ships. Several of them have run into economic difficulties in recent years and some have had to cease operations and sell ships. Since Switzerland provided credit guarantees for most of the ocean-going vessels flying the Swiss flag, this also led to considerable financial losses for the Swiss State. Subsequently, the importance of maritime shipping for national supply was re-evaluated as a basis for granting this aid, with the result that it is of no or only marginal importance for national supply. As a result, the Swiss guarantee system for ships was no longer renewed. With the discontinuation of these guarantees, the only federal shipping incentive ceased to exist. Since then, the number of seagoing merchant ships under the Swiss flag has steadily declined as a result of the aforementioned developments. Even though the last of the guarantees granted will not expire until 2032, the question of the future of the Swiss flag and fleet at sea is already being raised today.

## 1.2 Purpose of the Study

The SMNO has commissioned ISL to prepare a study as a basis for the upcoming strategic decision on the future orientation of the Swiss flag and fleet at sea. The SMNO, as the client, has provided the following rough methodology for the preparation of the study:

As a scientific basis for the assessment of several possible future scenarios, general questions on economic, legal, political and socio-cultural aspects need to be answered first. In a further part, conclusions are to be drawn regarding the following four possible future scenarios, based on the answers to the aforementioned questions:

- I. *Continuation of the Status Quo*
- II. *Modernization and opening of the Swiss registry*
- III. *Modernization and limitation and/or specialization of the Swiss flag, e.g. on recreational and competitive yachting and/or research vessels*
- IV. *Cessation of the Swiss flag and loss or abandonment of the status as a Flag State*

As a result, a summary assessment of the consequences of the individual future scenarios with regard to the aforementioned aspects is prepared for each scenario as an overview of advantages and disadvantages in tabular form. In addition, a consolidated overall assessment serves as a material summary. If possible, recommendations are already to be made with regard to the future strategic orientation of the Swiss flag and fleet at sea.

The following outline of the methodology provides an overview of how this study seeks to achieve the target goals set by the SMNO.



## 1.3 Methodology

### 1.3.1 Theoretical Framework

The research project requires a discussion of the legal framework applicable to Flag States and the vessels or ships flying their flags. The concept of *Flag State* is not only a legal mechanism which enables the exercise of freedoms of the high seas. It establishes the nationality of the ship. It also means effectively undertaking duties to ensure that the vessel flying its flag complies with international laws and regulations relating to maritime safety, the protection of the marine environment and the working conditions of seafarers. The allocation of jurisdictional powers among the *Flag State*, *Port State* and *Coastal State* over vessels or ships will be explained in order to put in context the primary role of the Flag State in the international regulatory framework for shipping. The fundamental discussion of the legal framework applicable for Flag States and vessels flying their flags will in turn affect the options or scenarios open to Switzerland as a Flag State.

For the research project, a precise definition of the terms *ships under Swiss flag* as well as *Swiss fleet at sea* is necessary. In particular, when assessing the size of the Swiss maritime fleet, a sharp delineation of which ships are to be counted as part of this fleet is indispensable. Depending on the interpretation, the Swiss fleet can be regarded as one of the world's larger fleets in terms of numbers and capacity, or as a rather small shipping nation in terms of its fleet size. The main decisive factor here is whether the ships of the Mediterranean Shipping Company (MSC) and other global corporations are assigned to the country of the headquarters and thus to Switzerland, or to the nationality of the owner. While MSC's fleet does not play a role in the number of ships flying the Swiss flag, it does have a major economic significance within the maritime sector with, for example, high employment effects.

### 1.3.2 Fleet Development

In order to be able to qualitatively and quantitatively determine the effects of the various scenarios on the Swiss fleet, the status quo of the Swiss merchant fleet must first be worked out.

First, the development of merchant vessels flying the Swiss flag over the last 15 years is considered in terms of number of vessels as well as the total capacity of the fleet. Subsequently, the current status of the Swiss-flagged fleet will be analyzed in more detail, i.e. it will be worked out how many and which ships are currently still in the Swiss register. In addition, the fleets of the shipowners who still have ships in the Swiss register will be analyzed. By analyzing the Flag State distribution of the individual shipping company fleets, conclusions are to be drawn about an actual flag preference of the corresponding shipping companies. In particular, the question about the registration motivation for the Swiss flag could be explained based on key moments, e.g. the termination of the Swiss guarantee system in 2017. If evidence is found in the entire Swiss fleet or in shipping company-specific fleets that indicates a causality between the existing guarantee system and the changing of flag, or the termination of the guarantee system with a simultaneous

decrease in the registration motivation of Swiss shipowners, it can be assumed that such an event had a correspondingly large influence on the registration motivation. The results of the analysis will be used at a later stage to draw conclusions on the competitiveness of the Swiss flag and on possible influences by the different scenarios on the Swiss flagged fleet.

The Swiss-flagged fleet has lost much of its reputation in recent years and is now on its way to being blacklisted under the Paris MoU, which could have serious consequences for shipowners, as blacklisting could lead to a deterioration of the market situation and possibly lower charter rates. In order to answer the question of why this situation could come about and what influence ship eligibility criteria/restrictions could have in terms of fleet quality, the next step is to look at the age of the Swiss fleet over the course of the last 15 years. By comparing the age of the fleet with that of other Flag States, the age of the Swiss flagged fleet will be put into perspective.

In addition to the fleet under the Swiss flag, ships under Swiss ownership and control are particularly significant for the importance of Swiss shipping for the Swiss economy. For this reason, the entire fleet under Swiss ownership and, in a further step, under Swiss control will be analyzed here. In addition to the number and capacity of the fleet, the management situation of the fleet will also be discussed. This means that an attempt will be made to work out which ships are under Swiss ownership, which companies the ships belong to and how many of them are actually managed from Switzerland. A large fleet with a relatively small number of management companies, for example, would suggest that while a country is certainly attractive as a headquarters for the chartering of ships, other countries are preferred for ship management activities.

In a final step, the distribution of Swiss-owned ships among the various Flag States will be analyzed. This will allow conclusions to be drawn as to which Flag States are particularly popular with Swiss shipowners. Although this information is not directly relevant for this study, it helps to identify which Flag States the Swiss register has to compete with internationally, which has an influence on the recommendations for further action made in the summary part.

In the second subsection of the section on fleet development, the development of the fleet of yachts and small crafts flying the Swiss flag is analyzed. In addition to the number of boats and ships in the Swiss register, separated into yachts and small ships, the distribution into leisure boats and special ships is also discussed here.

### **1.3.3 Competition of Registries**

In addition to the number of ships under Swiss control or ownership and the number of ships under the Swiss flag, the legal framework and especially the fiscal regime under which Swiss-flagged ships are to be operated must also be considered.

In section 4 the first step is to identify relevant competitive factors by means of a literature review, i.e. which factors influence the management decision on the choice of flag and to what extent, and whether there are any exclusion criteria that would lead to the

exclusion of a flag state at a very early stage in the decision-making process. The question of the flag is always accompanied by the question of the company's location or at least parts of the company, since UNCLOS requires a genuine link between the flag state and the ship.

Once the relevant competitive factors have been identified, the Swiss system will be put in comparison to assess its competitiveness. If, as mentioned above exclusion criteria cannot be met by Switzerland, the analysis should focus on these criteria, as the analysis of further competitive factors would not or not noticeably influence the result.

Especially for scenario II, the legal framework for flagging-in is of direct importance, as it defines the conditions under which a ship is or can be registered in the register of Swiss seagoing ships. The (Swiss) Maritime Navigation Regulations (Der Schweizerische Bundesrat, 2013) sets very high requirements for the domicile and nationality of the owner and management, so that an opening of the flag would only be possible through a far-reaching amendment of the legal framework. These preconditions are to be illuminated and analyzed in terms of their potentially anti-competitive effects. Furthermore, this step will already provide an initial assessment of the effects that can be expected from changes in the nationality requirements, taking into account the factors already analyzed. The sole opening of the flag for EU/EEA citizens or even for all foreign citizens or interests, for example, may not achieve the hoped-for effects in the event of a tax regime that is unfavorable in international comparison.

Due to its topicality, the last subsection of this section deals with the Flag State performance of the Swiss flag in the Paris and Tokyo MoU and what significance the Flag State plays in the compliance with safety criteria. The Flag States on the Grey and Black Lists of the Paris MoU are also analyzed in terms of their average fleet age in order to identify a possible causality between ship age and performance. The results of this analysis play a role in the evaluation of scenario 3a, which envisages the modernization of the Swiss fleet through e.g. age and classification restrictions. Secondly, the threat of blacklisting the Swiss flag in the Paris MoU may have severe consequences for the Swiss flagged-fleet.

### **1.3.4 Basis of Evaluation**

Relevant economic, legal, political and socio-cultural relevance of the Swiss flagged fleet, the Swiss fleet at sea and Switzerland's status as a Flag State in particular serve as the basis for evaluating possible future scenarios. These aspects are to be considered on the basis of previously determined, general questions in order to identify the significance of the Swiss fleet as well as of Switzerland as a Flag State in the various areas.

#### **1.3.4.1 Economic Relevance**

Based on publicly available data and documents the importance of the maritime economy within the Swiss economy will be estimated and quantified. In particular, revenues and direct employment effects play a role here. First, the term Maritime Economy will be defined in order to enable a sufficient identification of the related industries in a following

step. A diagram will be used to illustrate how the various sectors of the maritime economy achieve an overall macroeconomic effect on the Swiss economy through direct, indirect, induced and catalytic effects.

In order to illustrate the importance of the maritime economy for other sectors within the Swiss economy, Switzerland's import and export statistics by mode of transport are used and, as far as possible, projected beyond the actual point of quantification, the border, to determine the actual importance of maritime shipping. In a first step, the statistically determined, but misleading, distribution among the different modes of transport for imports and exports will be analyzed, i.e. an attempt will be made to identify this misleading component by means of diagrams and to depict it pictorially. In a further step, the actual importance of shipping for the import and export of goods and commodities of Switzerland will be analyzed on the basis of a literature research.

Apart from the actual importance of the physical import and export of goods to and from Switzerland by ship, another sector that is highly dependent on ocean shipping gained more and more importance in the past 20 years - the merchanting of commodities. As goods and commodities in merchanting do not in most cases cross the borders of the country in which the trade in these goods takes place, this sector only appears as business services in Switzerland's foreign trade statistics. The importance of this sector for the Swiss economy is shown on the basis of GVA and employment. The market shares of the largest international commodities trading hubs are also presented in order to show Switzerland's position in this sector in an international comparison.

The previously identified sectors within the maritime economy are now to be analyzed and quantified in terms of turnover and employment and, as far as possible, GVA. Whereas some sectors can clearly be allocated to the maritime economy in full, other Swiss based sectors produce only marginal preliminary input for the Swiss based shipping sector. In addition, the relatively low level of detail provided by the Swiss Federal Statistical Office does not allow for a basic determination of the indirect effects of the shipping industry on the different subsectors. A detailed quantification as done for the direct impacts would mean a disproportionate effort for the purpose of this study and is therefore only done where a sufficient statistical basis is available. Still, effects that cannot be quantified are analyzed on a qualitative basis. The importance of international shipping for Swiss suppliers in particular will be illustrated here by means of examples.

Finally, various questions on the importance of the maritime economy within the Swiss economy, as well as the Swiss merchant fleet, and the importance of the status as a Flag State will be answered on the basis of the previous analysis.

### **1.3.4.2 Legal Relevance**

This chapter will serve as the basis for the assessment of the four future scenarios with respect to the importance of the Flag State status and the Swiss fleet at sea in the legislative processes and in the adoption and implementation of international law at the international and national level.

The legal significance of the Flag State status on the economy, the environment and science, to the Swiss fleet, and to the maritime sector of the economy and Swiss economy in general will also be discussed. In order to assess the significance of Switzerland's Flag State status, Switzerland's Flag State administrative structures will be examined. Switzerland's membership in ocean-related treaties and international bodies and its participation in the international legislative process pertaining to shipping will be explained. Finally, Switzerland's duty to adopt and implement international law, in particular with respect international shipping law will be explained

### **1.3.4.3 Political Relevance**

The importance of the Swiss maritime fleet as well as the number of ships flying the Swiss flag or the status of Switzerland as a Flag State show strong overlaps in terms of legal and political aspects. In particular, Switzerland's participation in lawmaking goes hand in hand with its representation of its political interests in international organizations.

In order to evaluate the consequences of the various measures in the political sphere, it is first necessary to determine Switzerland's membership in conventions and international organizations. The governance structures of these organizations will be discussed in order to assess the extent of Switzerland's participation in these bodies. Switzerland's opportunities to promote its political interests in these organizations and the relevance of its Flag State status will also be addressed in this Chapter.

Finally, Switzerland's potential as a Flag State to exercise freedoms in emerging areas, such as offshore wind farms, marine genetic resources, or deep-sea mining, will be examined. This point will be of particular importance for scenarios III and IV.

### **1.3.4.4 Cultural, Social, Scientific Relevance**

In this section, the significance of the Swiss flag beyond demonstrable facts will be reviewed in terms of cultural, social and scientific relevance. In addition to the relevance of a Swiss merchant fleet in this context, the importance of yachts and small ships plays a particularly important role. The cultural, social and scientific relevance of Switzerland's status as a Flag State on the areas of sport and leisure use, as well as scientific and other use of Swiss seagoing vessels is to be determined. In particular, the abolition of the maritime flag and the abandonment of the status as Flag State would affect this area. In order to assess the socio-cultural importance of the Swiss flag, the number of ships and boats in this area will be quantified by publicly available data as well as data provided by the SMNO.

### **1.3.5 Scenario Evaluation**

#### **1.3.5.1 Definition of the Different Scenarios**

The four scenarios for the future orientation of the Swiss flag will first be explained in this section. Subsequently, the effects of the respective scenarios on the size of the Swiss maritime fleet, the number of ships under the Swiss flag, but also a hypothetical increase of ship management activity based in Switzerland will be elaborated.

While Scenario I is merely a representation of the status quo the other three scenarios are more or less complex. As already indicated, the effects of modernization and opening of the flag in particular are dependent on a variety of other factors, so that an opening of the flag could possibly also come to nothing. It is therefore important to define and delineate the scenarios accordingly.

Freedoms that Flag States may exercise in areas beyond national jurisdiction extend beyond traditional activities such as navigation and fishing. Indeed, maritime activities other than navigation in areas beyond national jurisdiction have increased and are expected to continue to develop in the coming years. A new treaty is currently being negotiated at the UN to govern or regulate activities in areas outside national jurisdictions to fill the gaps in the current ocean legal system. These new developments in the ocean legal framework will have implications for high seas freedoms and the concept of Flag State, and will therefore be considered in the definition and formulation of Scenarios III and IV.

#### **1.3.5.2 Evaluation, Summary and Recommendations**

In this part, an evaluation of the four scenarios takes place. Each scenario is assessed with its specific impact on the four evaluation bases, namely economic, legal, political and socio-cultural relevance. The results of the evaluation will then be summarized in a table with advantages and disadvantages of the specific scenarios on the individual evaluation bases as external factors and on the size of the merchant fleet sailing under the Swiss flag, as well as recreational and small craft, as internal factors relevant to the registry. This table can be found in the annex to this study. In addition, a consolidated overall assessment based on this is provided as a summary of content and material.

Based on this study, initial recommendations for action are made for the future orientation of the Swiss flag in the current legal and fiscal system.

## 1.4 Limitations and Boundaries

In addition to the changes described in the scenarios, the present study will also address other register-relevant factors, e.g. the current tax environment, and thus take a holistic approach. This holistic approach is possible in the sense that register-relevant components are included in their current form. Due to the time and financial framework of the current study, a holistic view in the sense of hypothetical changes in other segments not explicitly mentioned in the call for proposals of the client is not possible. Changes in the Swiss legal regime should therefore be limited to the changes described in the scenarios, assuming that all other components remain the same. As described in Section 4, a variety of factors play a role in the choice of flag. While one study assumes a total of only 14 criteria (Chou, 2018), in another study there are 53 (Deloitte, 2017). The development of a holistic Swiss shipping strategy would therefore require an analysis of up to 53 variables and could only be determined in a large-scale and cross-ministerial study. The present study must therefore be limited to a *ceteris paribus assumption*, i.e. all variables except the one under consideration remain the same.

The chain of reasoning in Section 4 was based on various studies on decision making regarding the registration of ships. In addition, on the basis of statistical analyses, an attempt was made to put the sentiment of Swiss shipowners with regard to the Swiss flag and its international competitiveness, as described in the White Paper of the Swiss Shipowners Association and confirmed in discussions with members of the industry, on a displayable basis. However, since these are still forecasts that only illuminate a small area of an overall highly complex system, uncertainties are to be expected, especially on the scenario evaluation.

For this reason, the present study can only serve as a sufficient strategic basis for decision-making in an otherwise unchanging legal regime. In the event of a hitherto hypothetical change in the Swiss shipping strategy, in particular through a change in taxation or the introduction of shipping-specific incentives, individual elements of this study can still serve as a basis for argumentation, but the results found in the evaluation in particular are no longer valid in its entirety in such a case.

## 2 Definition and Delimitation

### 2.1 Law of the Sea Framework Applicable to Vessels and to Switzerland as a Flag State

To assess the future prospects of the Swiss Flag and its fleet at sea from different perspectives, it is important to first establish the applicable international legal framework. Since 2009, Switzerland is Party to the 1982 United Nations Convention on the Law of the Sea (UNCLOS). UNCLOS is recognized as the Constitution for the oceans and provides for legal framework for all uses, rights and duties in the ocean space. This includes regulations on vessels or ships<sup>1</sup> at sea and their respective Flag States. Under UNCLOS, the law of the Flag State is the legal mechanism that regulates trading and navigation activities in the different maritime zones.

The law of the Flag State is thereby part of the legal regime of the high seas. The high seas are open to all States. This can be coastal States, or landlocked States such as Switzerland (Art. 87 UNCLOS). All States enjoy the freedoms of the high seas, one of which is the freedom of navigation. To regulate the exercise of freedom of navigation, UNCLOS allocates each vessel to a Flag State. The law of the Flag State is the foundation upon which the following issues are determined: ship nationality, the jurisdiction and control allocated to the Flag State, the national law which applies to the ship, which is authorized to exercise control and jurisdiction over it. Under certain circumstances provided under UNCLOS, jurisdiction and enforcement control may be exercised by coastal States and Port States over foreign-flagged vessels. We will discuss this further in the subsequent sections.

#### 2.1.1 Nationality of Ships and the Requirement of Genuine Link

A ship has the nationality of the State whose flag it is registered to (Art.91 UNCLOS). It is up to the individual Flag State to determine the conditions or requirements of the nationality of the vessel that are entitled to register and thereby can fly its flag. The only requirement set by UNCLOS is that there must be a genuine link between the State and the vessel flying its flag. The genuine link requirement which evolved as a response to an increase of open registries which have been associated with substandard shipping (König, 2008). What actually constitutes a "genuine link", however, is not defined in UNCLOS. Some States argue that "genuine link" is met by requiring that the nationality of the ship-owner or the nationality or domicile of persons in control of the ship be the same as that of the Flag State (König, 2008). According to the International Tribunal for the Law of the Sea (ITLOS) in the M/V Saiga Case No. 2, however, "genuine link" is neither established by reference to the nationality of the owner of the vessel, nor by the nationality and domicile or residence of persons in control of the vessel. (ITLOS, 1999) Rather, a reading of art. 5 of the 1958 Convention on the High Seas on which the concept of

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<sup>1</sup> In UNCLOS, the terms "ship" and "vessel" are not defined and are used interchangeably.



“genuine link” in the UNCLOS is based, connects “genuine link” with the duty of the Flag State to exercise effective jurisdiction and control over its vessels. According to ITLOS, it is the Flag State's effective exercise of jurisdiction and control over the vessels under Art. 94 of UNCLOS that establishes the link between the State and vessel as “genuine”.

Under Swiss Law, unless otherwise provided for by international law, the nationality requirements for ships to be registered in the Swiss ship registry are as stipulated by the Federal Council in the Navigation Act and Navigation Regulations. To be entitled to fly the Swiss flag and thus be registered in the Swiss Ship Registry, the Federal Council places a premium on Swiss nationality and Swiss residency of the owners as well as the managers.

Establishing the nationality of the ship is crucial in three aspects: 1) it identifies the State which can exercise jurisdiction over it, 2) it identifies which State has the duty to implement duties under UNCLOS and international conventions and enforce national rules and regulations and 3) it identifies the State who is under obligation to provide diplomatic protection for the vessel and crew (König, 2009). These aspects will be dealt with in turn.

### **2.1.2 Duties of the Flag State**

Under Art. 94 of UNCLOS, the Flag State is under a duty to effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag. Thus, the Flag State is required to maintain a register of ships entitled to fly its flag and to assume jurisdiction over such vessels in accordance with its national laws (Art. 94). Further, the Flag State is obliged to take measures under Art. 94 of UNCLOS for the purposes of ensuring safety of life at sea and the prevention and regulation of vessel-sourced pollution. In implementing its duties concerning vessels flying its flag, the Flag State is required to conform to generally accepted international regulations, procedures and practices. It also requires to undertake any steps which may be necessary to secure their observance (Art. 94.5). It is accepted that IMO conventions and other non-binding IMO instruments maritime safety and ship pollution are the main source of such international regulations, procedures and practices (IMO, 2014). The ILO conventions and recommendations, on the other hand, are the main source of international standards relating to labour conditions of seafarers.

As a State Party to UNCLOS, Switzerland is, at the very least, legally bound to refer to conventions and instruments in implementing and complying with its duties towards vessels flying its flag under UNCLOS, even if it were not a party to these instruments. Switzerland is, however, a party to the IMO since 1955 and party to 34 IMO conventions dealing with maritime safety, security and the prevention of pollution from ships. It is also party to the ILO and party to the MLC.

Under UNCLOS, Switzerland has a duty to adopt national laws to ensure that the international rules and regulations binding to it are observed and complied with by vessels flying its flag (Art. 94.5 UNCLOS). This means that in complying with its duties as a Flag State under the IMO and ILO conventions, Switzerland is also in compliance with its duties as a Flag State under UNCLOS (IMO, 2014).

UNCLOS also requires States Parties to cooperate through competent international organizations such as the IMO and the ILO or diplomatic conferences to elaborate and adopt rules and regulations for the safety of ships and the prevention of pollution from ships (Art. 211 UNCLOS) and the working conditions of seafarers.

### **2.1.3 Allocation of Jurisdiction over Vessels**

The UNCLOS allocates jurisdiction over vessels or ships among the Flag State, the Coastal State and the Port State. The different IMO instruments and applicable ILO conventions and recommendations respect the distribution of jurisdictional powers among these three States.

#### **Flag State Jurisdiction**

The Flag State holds primary jurisdiction over vessels flying its flag, regardless of which maritime zone the vessel finds itself in. The Flag State is under a duty to take measures on maritime safety and security and on vessel-sourced pollution regulations, including inter alia, those measures necessary to ensure safety at sea with regard to the construction, equipment and seaworthiness of ships; to the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments; to the use of signals, the maintenance of communications and the prevention of collisions (Art. 94 UNCLOS).

As mentioned earlier, the scope and extent of a flag State's duties under UNCLOS are contained in IMO conventions, including the SOLAS Convention, the Collision Regulations, the STCW Convention, and MARPOL and in ILO conventions and recommendations relating to seafarers

On the high seas, the general rule is that the Flag State exercises exclusive jurisdiction over vessels flying its flag (Art. 92). However, on the exclusive economic zone, the continental shelf and contiguous zone, the coastal State may exercise jurisdiction over foreign-flagged vessels.

### **Port State Control**

Whenever vessels are voluntarily at a port of a third State, that State may act as Port State and undertake control measures over the foreign-flagged vessel to determine whether the vessel is in compliance with international laws and regulations relating to safety, security, and the protection and preservation of the marine environment (Art. 218 UNCLOS), and to working conditions of seafarers. The role of the Port State in this regard is complimentary to that of the Flag State and is designed to address the weaknesses of a Flag-State-centred legal framework. Thus, the Port State control is considered to be a tool to “improve Flag State enforcement” (Takei, 2013b). States acting as Port States are under a duty to report to the Flag State any action taken against vessels flying its flag (Art.231 UNCLOS). Upon receipt of the report, the Flag State is under a duty to investigate the matter and if required, initiate proceedings against the erring vessel (Art. 217 UNCLOS).

The control powers allocated to Port States under UNCLOS is reflected in IMO Conventions and in ILO conventions. Under these IMO and ILO conventions, the Port State is empowered to undertake control of foreign-flagged vessels to verify the certificate issued by the Flag State and in case of deficiencies, detain and order the ship to rectify deficiencies at a suitable repair yard.

In practice, many States have entered into regional arrangements in order to harmonize and perform their obligations as Port States under the UNCLOS and under different IMO and ILO conventions more efficiently. There are currently 9 Port State Control regional arrangements in the form of Memoranda of Understanding (MoUs). The two oldest MoUs are the Paris MoU which is an arrangement among mostly EU Port States, and the Tokyo MoU, an arrangement among Asia-Pacific Port States.

The Paris MoU and the Tokyo MoU maintain White, Grey and Black Lists of Flag States of vessels calling the ports of the members and subjected to control or inspection. These lists indicate the results of the inspection done and enforcement measures taken including detentions ordered by the Port State. The lists maintained by the Paris MoU and Tokyo MoU are indicators of Flag State performance of its duties over vessels flying its flag. It has been noted that Switzerland has been consistently in the Grey Lists of the Paris MoU and the Tokyo MoU since 2006. The listing of Switzerland from the Grey to the Black List of the Paris MoU has been depicted as imminent.

Inclusion in the Grey and Black lists of a Port State MoU has serious legal and financial implications for the individual vessels (Takei, 2013b). Port States have the power to order the detention of vessels to ensure that corrective actions are taken before they are allowed to sail as well as deny access to ports of ships that are noncompliant (UNCTAD, 2019).

Inclusion in the Grey or Black List is not akin to a clear declaration by other sovereign States acting as Port States that the Flag State is in breach of its duties as a Flag State. However, inclusion in the Grey or Blacklist sends a strong message to the Flag State, because it means a “consistent pattern of infractions by individual vessels”, which “gives rise to a presumption that the flag State has not exerted its best efforts” (Takei, 2013a).

The fact that Switzerland has been on the Grey Lists of the Paris MoU and Tokyo MoU for some time now with the possibility of being black listed in the Paris MoU does indicate that the effectiveness of Swiss Flag governance is under international scrutiny and needs to be reviewed.

Under UNCLOS, IMO and ILO conventions requiring Port State control, Port States are under a duty to report their enforcement measures to the Flag State. The Flag State, upon receipt of such information, is under a duty to investigate the incident and if necessary, initiate judicial proceedings against the erring vessel. This is a duty of specific conduct. Hence, while Flag States may not necessarily be considered in breach of its duties for the individual violations of the vessel, their failure to investigate incidents following receipt of Port State report and the failure to initiate proceedings to penalize such infractions will be a breach of obligation under international law (Takei, 2013a).

### **Coastal State**

As for coastal States, they exercise jurisdiction and control over matters and sovereign rights allocated to them under UNCLOS in their territorial seas, contiguous zone, exclusive economic zone and the continental shelf.

In the territorial sea foreign-flagged vessels have the right of innocent passage but they must exercise this right according to UNCLOS. (Arts. 18 to 23 UNCLOS) Coastal State Parties to IMO conventions can implement and enforce applicable IMO rules relating to safety of navigation and for the prevention of and protection from vessel-sourced pollution against non-compliant foreign-flagged vessels. The coastal State can also enforce its criminal and civil laws on foreign-flagged vessels passing in the territorial sea in accordance with Arts. 27 and 28 of UNCLOS.

On the High Seas, the Flag States exercise exclusive jurisdiction over vessels flying their flags. This general rule of Flag State exclusive jurisdiction is, however, curbed by the sovereign rights and allocated competences of the coastal State on the exclusive economic zone and the continental shelf.

On the exclusive economic zone and the continental shelf, the Coastal State may exercise jurisdiction over foreign-flagged vessels in cases of violation of coastal States laws and regulations on matters allocated to the coastal State under Art. 56 and Art. 77 of UNCLOS. These include the sovereign rights over living and non-living resources, the right to undertake economic activities for the production of energy, the right to operate artificial islands and installation, jurisdiction over marine scientific research and the preservation and protection of the marine environment.

UNCLOS has specifically empowered the Coastal State to exercise enforcement powers over foreign-flagged vessels for fisheries offenses (Art. 73 UNCLOS) and for pollution offenses (Art. 220 UNCLOS). These enforcement measures include arrest and detention of vessel and crew and judicial proceedings.

The exercise of Coastal State jurisdiction over foreign-flagged vessel is an ongoing legal and political issue for Switzerland. The M/T San Padre Pio, a vessel flying the flag of Switzerland, was arrested and detained by Nigeria for carrying out bunkering activities in

Nigeria's exclusive economic zone on 23 January 2018. Criminal cases were filed against the vessel and Master and some crew members. Switzerland, exercising its diplomatic protection to a vessel flying its flag, intervened as a Flag State and brought the case to dispute settlement procedures under UNCLOS. Switzerland submitted the dispute to arbitration under Annex VII of UNCLOS and, at the same time, submitted a request for provisional measures at the International Tribunal for the Law of the Sea (ITLOS) for the release of the vessel and crew and cargo on 6 May 2019.

On 6 July 2019, the ITLOS ordered provisional measures including the release of the vessel, crew and cargo upon the posting of reasonable bond in the amount of US\$14,000,000 (ITLOS, 1999). After Switzerland as Flag State of the M/T San Padre Pio posted this bond, the crew members were released. However, the vessel remains in detention despite the ITLOS order for prompt release (*Nautilus International*, 2021). The case between Switzerland and Nigeria with respect to merits of the arrest of M/T San Padre Pio has been transferred from an Annex VII arbitration to ITLOS and is currently pending (ITLOS, 2019). One of the main issues of the case is whether bunkering on the exclusive economic zone is an exercise of the freedom of navigation, and therefore beyond the enforcement jurisdiction of the coastal State.

The case of M/T San Padre Pio illustrates that Flag State duties also include diplomatic representation of registered vessels in case they are subjected to enforcement measures by other States.

## 2.2 Ships flying the Swiss Flag & Fleet at Sea

Since this project requires dealing not only with merchant or commercial ships but also with pleasure crafts and ships for researching purposes, it is important to clearly differentiate the separate categories of shipping throughout the whole study. In general, this study only addresses ships navigating coastal areas and/or the high seas. The only exception is the section on economic relevance where inland shipping forms part of the Swiss maritime industry.

For the purpose of this study the terms ship, vessel and fleet always refer to merchant maritime shipping, meaning ships navigating coastal areas and the high seas for commercial reasons. When referring to pleasure crafts, research crafts or any other form of shipping outside of the just mentioned definition of merchant maritime shipping, an unambiguous and clear assignment is made. All pleasure crafts and other vessels that are not intended for commercial use navigating coastal areas or the high seas, are deemed part of the Swiss fleet when flying the flag of the Swiss Confederation. The question whether or not seagoing merchant ships (including cruise ships) are part of the Swiss merchant fleet cannot be simply answered by looking at the flag the ship is flying and is discussed in detail below.

At first appearance, the definition as to whether a ship forms part of a nation's fleet seems obvious. According to Article 91 UNCLOS ships have the nationality of the State whose flag they are permitted to fly. That means, by granting the right to fly its flag, a sovereign State simultaneously grants nationality to this ship. Concerning the Swiss Confederation,

the Swiss flag means the symbol of nationality for every ship flying this flag and Switzerland being the Flag State granting that right. (Ademuni-Odeke, 1997) This might lead to the assumption that a State's fleet means the aggregate of ships flying this States flag. The terms ships flying a State's flag and the fleet of said State therefore might be used synonymously. Depending on the individual context and definition, the synonymous use of flag and fleet can be correct, especially in regard to international law or international organizations, e.g. the UNCLOS or the International Maritime Organization respectively.

Still, depending on context, a state's fleet can mean something profoundly different and can either gravely under- or overestimate a nation's fleet of seagoing ships when applying the above definition of the ship's flag, or nationality respectively, as indicator for a ship's allocation to a certain fleet. This is especially true for effects that a fleet may have on a nation's economy. The two extremes are open registry States that have a very liberal policy for the registration and flagging-in of ships, and traditional maritime nations with many vessels flagged-out to these open registry States while actual ownership and management is still located in the home country.

Whereas e.g. Panama has the largest shipping fleet in the world, both in deadweight and amount of ships, when determination is done by the ships' flag (Marinekommando, 2019), the number of ships owned by Panamanian nationals are just a fraction.<sup>2</sup> Since only a smaller number of the controlling or the operating entities of these ships are located in Panama, the impact of these ships on the Panamanian economy arise to a large extent from registry fees, services and taxes.<sup>3</sup> For a country with a relatively low GDP<sup>4</sup>, even small charges may produce substantial effects to a nation's economy when applied on a large tonnage. Still, the absolute impact is a lot lower than in traditional maritime countries.

In case of traditional maritime countries with national registries, the opposite is usually true. A prominent example for a large fleet controlled by nationals with a very small number of ships under their national flag is Germany. At the end of 2018 an overall of 2,324 seagoing ships were under German control with only 302 Ships flying the German flag with 1,812 ships temporarily flagged-out by bareboat charter registration. Another 210 ships were solely registered in open registry States. Even though the number of German flagged vessels was and still is very small, the impacts of the companies controlling these ships to the German economy are considerable with revenues of 9.2 billion Euro, gross value added of 1.7 billion Euro and 12,539 direct employees.<sup>5</sup> Plus, indirect and induced effects arising from the shipping sector.

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<sup>2</sup> Beginning of July 2020 43.8 % of the total dwt in the Panamanian register were owned by Japanese nationals, 11.8 % by South Korean, 9.5 % by Greek, 8.2 % by Chinese, 5.5 % by Taiwanese, 5.1 % by Italian and the rest by other nationals. Only 61 Ships or 0,15 % were owned by Panamanian nationals. (Clarksons July 2020)

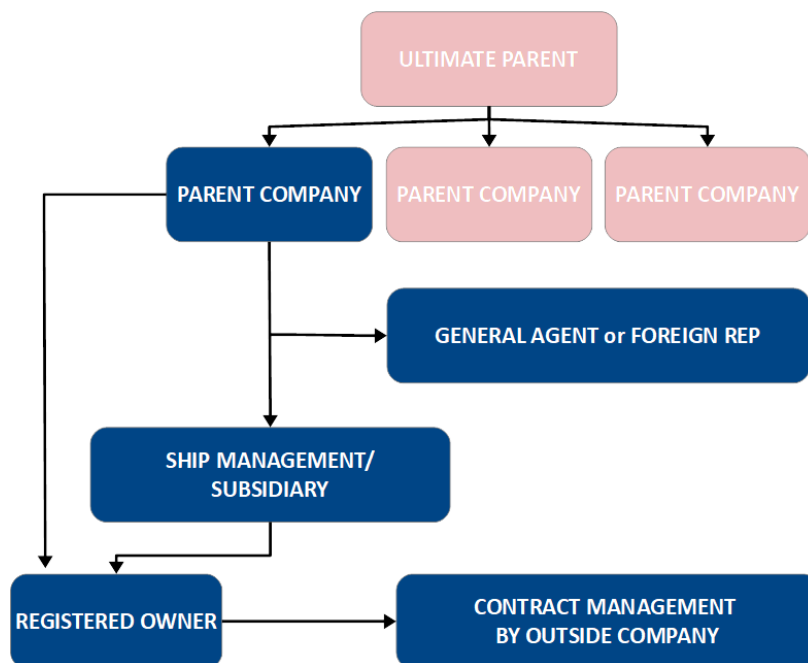
<sup>3</sup> According to Clarksons SIN only 254 operating and 272 managing companies are registered in Panama. In comparison, in Singapore there are 881 operating and 1,197 managing firms registered, even though the fleet is a lot smaller.

<sup>4</sup> GDP 2018 (Worldbank): GDP total: Panama USD 65,06 billion, USD Switzerland 705,1 billion, Germany USD 3,948 trillion;

<sup>5</sup> ISL calculations 2020

It could be shown that the synonymous use of flag and fleet, especially when considering economic effects, is misleading. Here, another definition for fleet, not on nationality of the ship, but rather on the location of the added value and employment is needed.

Because of the often somewhat fragmented structure of shipping companies in an international environment, the allocation of a ship to a nation's fleet by the nationality of the registered owner usually fails, too. This structure of ownership and management is shown in the following figure. The ultimate parent in the hierarchical structure means a company controlling different subsidiary parent companies, where one may be of a maritime nature. This parent company is then the controlling interest behind a fleet and may or may not directly own ships itself as registered owner and may or may not commercially manages their ships. In cases where the registered owner is a bank or a fund, it is obvious, that the commercial management and operation needs to sit somewhere else.

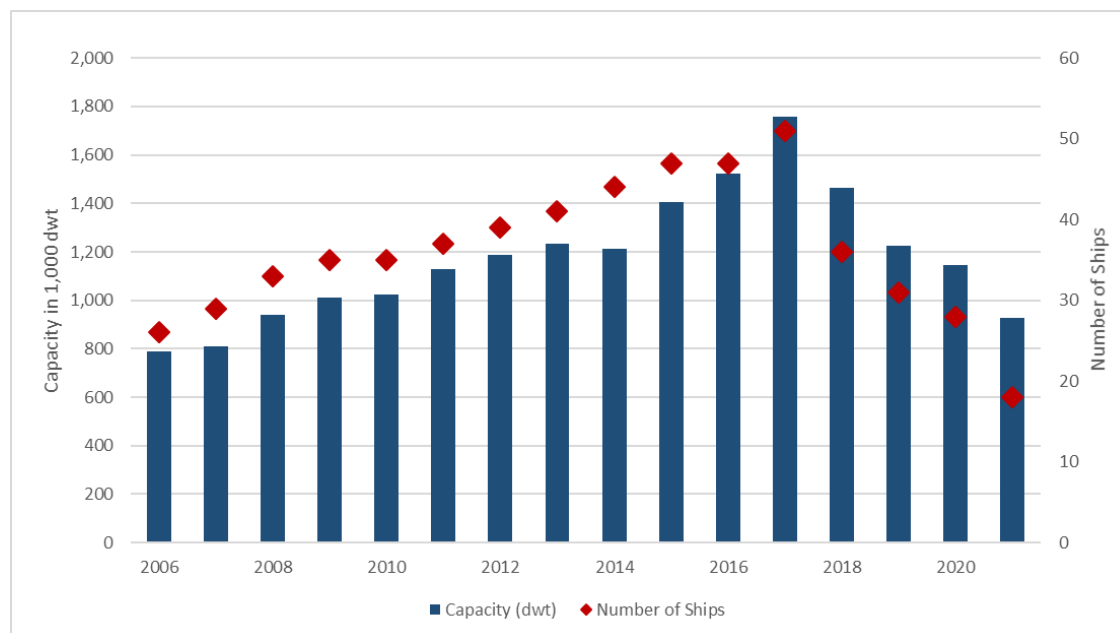


*Illustration 1: Structure of responsibility and ownership in international merchant shipping  
Reference: ISL on based on Lloyd's Maritime*

For the purpose of this project, the term Swiss fleet at sea means all seagoing ships where the parent company, i.e. the controlling interest, is located in the Swiss Confederation, regardless of the owners' nationality. This includes all ships under Swiss flag but also ships that are registered by open registries and controlled by entities located in Switzerland. By applying this definition, it can be achieved that the majority of ships creating employment and added value directly from merchant maritime shipping activities to the Swiss economy can be determined. Still, the definition by country of control also includes ships where the parent company is located within the Swiss confederation but where the ship management, e.g. technical management, registration and crewing, takes place abroad. In addition, a Swiss parent company may operate additional charter ships, where neither ownership nor management is located within Switzerland.

## 3 Fleet Development

### 3.1 Commercial Shipping



*Illustration 2: Fleet development Swiss flag 2006 to 2020 showing January figures  
Reference: ISL (2021) on Clarksons SIN data*

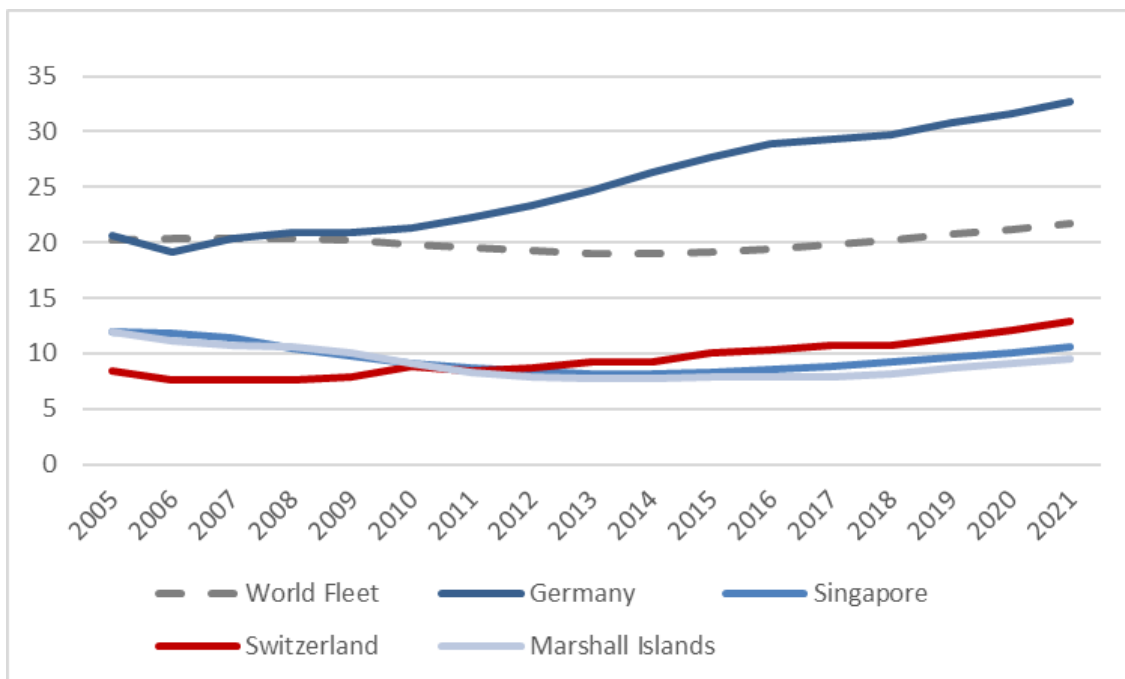
The Swiss flagged fleet grew from 26 ships in 2006 to over 51 ships in 2017 with a strong overall growth of 122.4 % in terms of capacity, what accounts to an annual growth rate of 6.1 % p.a. With the cessation of the State-backed guarantees in June 2017 (Informationsdienst WBF, 2017) the single most important incentive for Swiss shipowners to run their ships under the Swiss flag vanished. Since then, the Swiss flagged fleet shrank to a mere 18 ships at the end of 2020. The capacity of the Swiss flagged fleet shrunk by over 47 %, or 14.8 % p.a., not a single vessel has since entered the register of the Swiss Confederation.

These 18 ships are operated by only four companies, namely Suisse-Atlantique, Reederei Zürich, ABC Maritime and Blue Squared AG, whereas the last two companies manage only one ship each under the Swiss flag. The ship which is registered for ABC Maritime, the M/T San Padre Pio, has been at anchor off the coast of Nigeria for several years now and is deemed to be lost. (FleetMon, 2021) According to the Neue Zürcher Zeitung, the bank that financed the purchase of the San Padre Pio already drew the guarantee from the federal government of approx. 4.3 million francs. (Wanner and Schneider, 2021) Apart from the M/T San Padre Pio, ABC maritime owns and manages another twelve ships under different open registry flags. (Clarksons, 2021) Whereas Reederei Zürich operates all of their six ships under Swiss flag, Suisse-Atlantique has a total fleet of 13 plus one pending delivery in 2021, from which ten ships flying the Swiss Flag. The other three ships, one of which was delivered in 2020, are registered in the Marshall Islands and according



to information from the Swiss radio and television company SRG SSR, the other new-building to be delivered in 2021, the "Nyon", will probably also be flying the Marshall Islands flag. (SWI swissinfo.ch, 2020)

In comparison to other Flag States, over the past 15 years the Swiss flag has always had a relatively young fleet (see Illustration 3) comparable to the fleets of Singapore and the Marshall Islands. Thus, if the modernity and the potential for a fleet with high quality ships would be measured in the ships' age, Switzerland should have always had a high potential to have a high quality fleet. At the beginning of 2021 the average age of the world fleet was 21.72 years, 9.47 years for the Marshall Islands, 10.66 years for Singapore and 12.95 years for Switzerland. Many traditional Flag States currently struggle with an ageing fleet, e.g. Germany's flagged fleet currently has an average age of 32.72 years.



*Illustration 3: Average age of world fleet and selected Flag States*  
*Reference: ISL (2021) on Clarksons SIN data*

While the Swiss flagged fleet has been seeing an erosion over the past years, the same is not true for the overall fleet in Swiss ownership. From beginning of 2013 to October 2020 the Swiss owned fleet grew from 338 to 416 vessels and in terms of capacity from 16.0 million dwt to 27.0 million dwt. Even though MSC accounts for almost 60 % (244 ships) of the Swiss owned ships in October 2020 and around two-third of the Swiss owned capacity (18.8 M dwt), it is obvious that the strength of the Swiss fleet cannot be reduced to MSC alone. Still, it is also obvious that the Swiss flagged fleet does only represent a marginal fraction of the overall Swiss fleet. In October 2020 the Swiss flagged fleet only accounted for around 3 % of the Swiss owned fleet in terms of capacity and 5 % in terms of numbers.

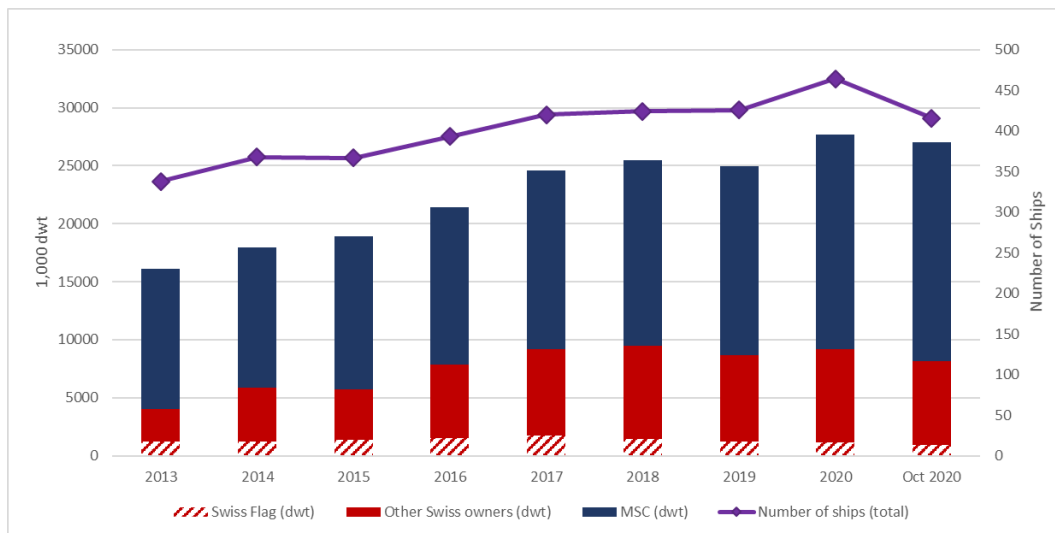


Illustration 4: Development Swiss Owned Fleet (incl. MSC) 2013 – 2020

Reference: ISL (2021) on Clarksons SIN data

Keeping in mind that only MSC additionally operates more than 300 charter vessels in October 2020 with more than 26 million dwt in capacity (Clarksons, 2021), the importance of the Swiss flag within the Swiss shipping sector is further relativized. Summing-up, in October 2020 the fleet in Swiss ownership and/or operation is estimated to be more than 800 ships with a capacity of over 60 million dwt and almost 52 million GT.

Apart from ownership and commercial control, the actual place of the ship management is another factor where employment and value is generated. Whereas the Swiss owned fleet certainly accounts for a substantial share of the world fleet in numbers and size, data show that beginning of 2021 only 148 ships with a capacity of around 3.2 million dwt were managed from within Switzerland. Within the peer group of the Swiss owners excl. MSC it was found that only 76 were managed<sup>6</sup> from within the Swiss Confederation, 29 ships in the ownership of Swiss companies were managed abroad, and 67 ships were in ownership of Swiss based multi-national trading companies with the management located abroad for all 67. In case of MSC it could be found that only seven ships are currently managed from within Switzerland but that the vast majority is managed from Cyprus and Italy (Clarksons, 2021). Thus, 65 ships that are not in Swiss ownership are additionally managed by Swiss ship management companies.<sup>7</sup>

Regarding the choice of flag for vessels in Swiss ownership including MSC it was found that almost half of the Swiss owned fleet in terms of numbers was registered in Panama (205 ships), followed by Liberia (64 ships), EU-flags (58 ships), the Marshall Islands (43 ships) and Switzerland (20 Ships). Another 27 ships were registered in other Flag States. Here, the relative strength of the Panamanian flag is due to the number of MSC-owned vessels registered in Panama (77 % of the MSC owned fleet is registered in Panama). When looking at the ships in Swiss ownership excluding MSC the picture is profoundly

<sup>6</sup> The management of a ship in this context means, among others, e.g. the technical management, registration, or crewing.

<sup>7</sup> The number is calculated as followed: 148 (total Swiss managed)-76 (Swiss owned and managed)-7 (MSC owned, managed in Switzerland) = 65

different. Here, the Marshall Islands account for 25 % in terms of numbers (43 ships), followed by EU-flags (42 ships), Liberia (34 ships), Switzerland (20 Ships) and Panama (16 ships). 18 Ships were registered in other Flag States.

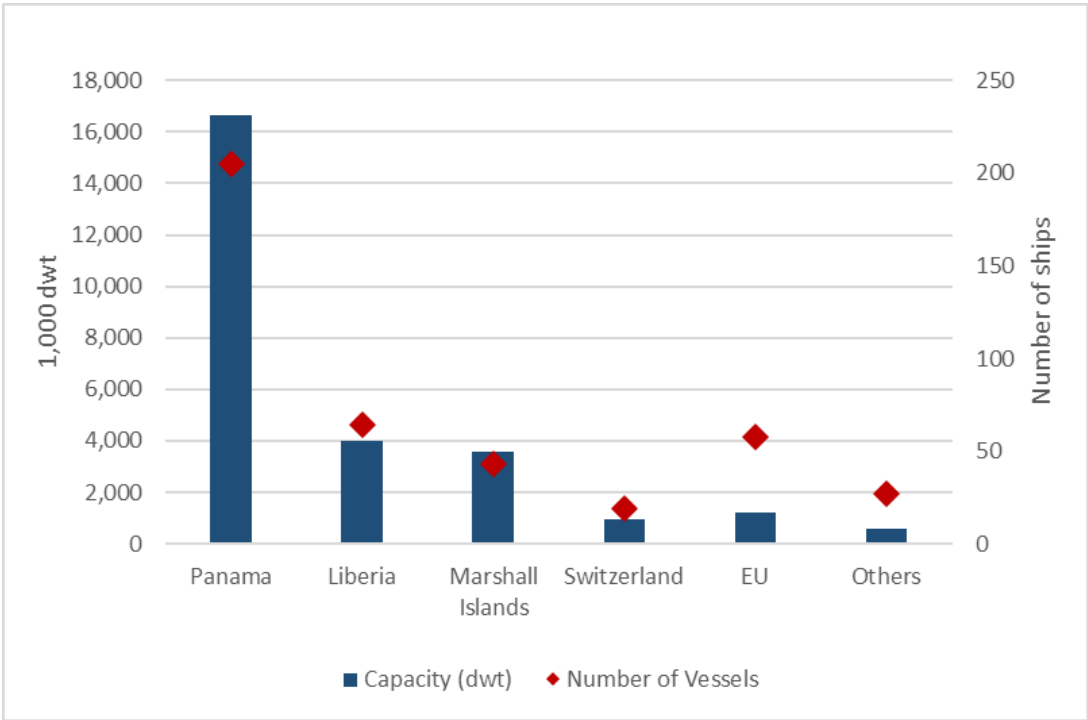


Illustration 5: Flag of ships in Swiss ownership (including MSC)  
Reference: ISL (2021) on Clarksons SIN data

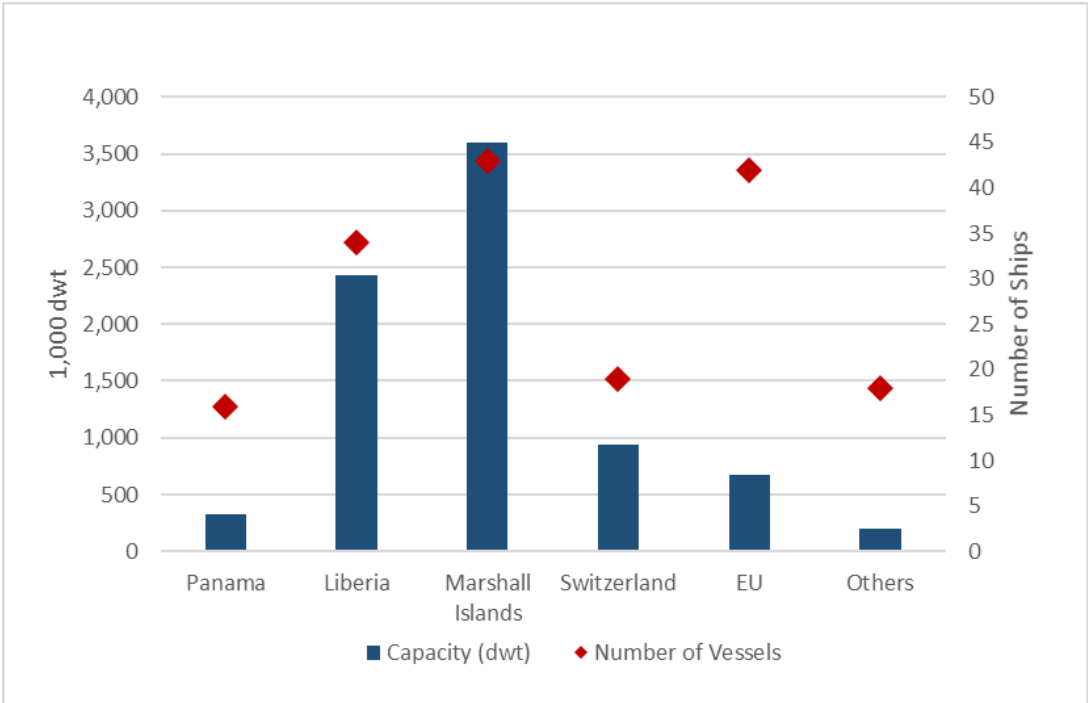


Illustration 6: Flag of ships in Swiss ownership (excl. MSC)  
Reference: ISL (2021) on Clarksons SIN data

### 3.2 Yachts and Small Crafts

Although small crafts and private yachts are generally not considered as a vital sign for a vessel registry, yachts and small crafts for domestic use and/or international pleasure and recreational use have a significant relevance to fly their respective national flag. Private owners of recreational yachts do have a distinct notion of using their national flag, both for ease of administrative burdens as well as for reasons of *national pride*. This is especially of interest for owners of small crafts, without the need for a commercial crew or owners of yachts for charter. Contrary to commercial shipping, the cost factor is rather unimportant for owners of yachts and small crafts as costs are rather limited.

Commercial charters and / or owners tend to *flag-out* their yachts, in order to minimize administrative burdens as well as costs.

Currently there are about 1,600 ocean-going yachts and about 350 coastal boats sailing under the Swiss flag. They may be used exclusively for sport and pleasure navigation. Commercial transport of people and goods is not permitted. The SMNO checks whether the legal and technical requirements for registration are met and issues the flag certificate to the applicants. Swiss private individuals and associations whose purpose is sport and pleasure navigation are entitled to register.

It can be stated that the demand for a Swiss flag is high in the sport and pleasure shipping sector. In the last 15 years, the Swiss Yacht Register has always had approximately between 1,530-1,590 yachts and about 320-360 coastal boats. So the interest has remained fairly constant, rather with a slight increase. In 2011 there were about 1,540 yachts and about 320 coastal boats registered in Switzerland.

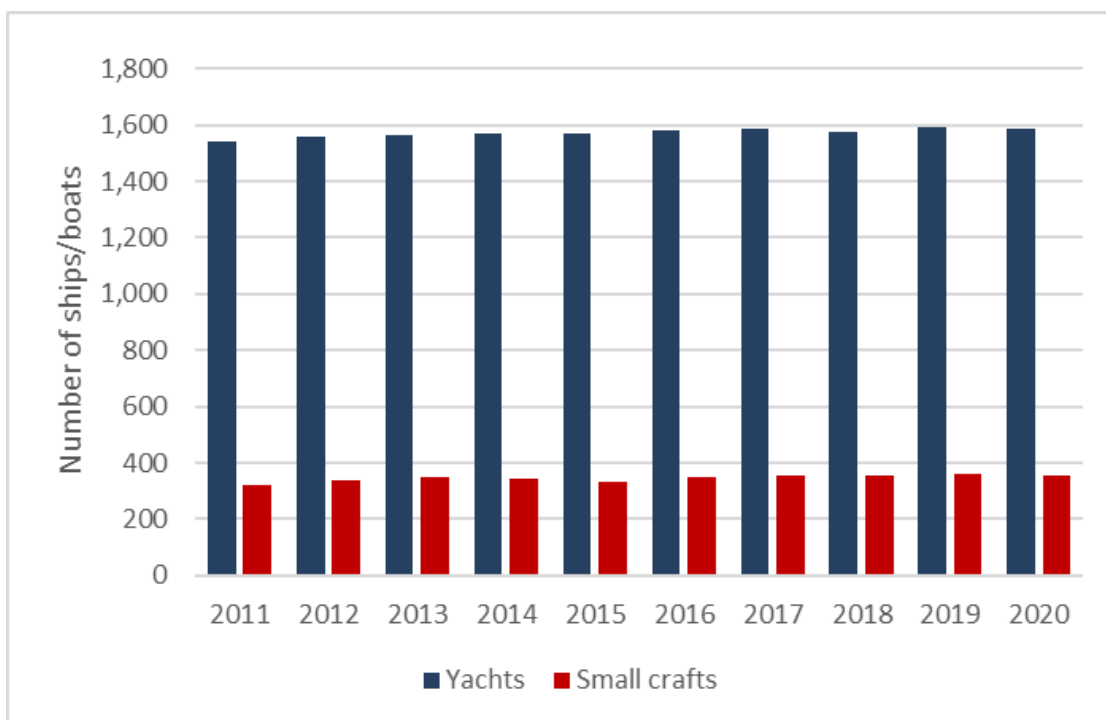


Illustration 7: Yachts and small crafts in the Swiss register  
Reference: ISL (2021) on SMNO data

The Swiss yacht register has various research or special ships listed as well, that are not recorded separately. At the moment there are about 25 - 30 ships with such special features. These special ships can have a humanitarian, philanthropic, cultural or scientific mission.

These also give the SSA the necessary prestige (Swissness), such as for sporting activities (Atlantic Challenge / rowing boats), pioneer ships (Race for Water / solar plate catamaran) or research projects (yachts Mauritius and Fleur de Passion). Also the 6 training ships of the CCS (Cruising Club of Switzerland) are registered in the Swiss-Yacht Register.

## 4 Competition of Registries

### 4.1 Competition Factors

Because of the global nature of the shipping industry and the existence of open registry States, the choice of flag for a ship had become one of the main competitive factors in the maritime shipping industry. (Chou, 2018) In order to stop the constant shrinking of their national fleets, with an associated loss of maritime expertise, employment and subsequent negative impacts on their economy, traditional maritime nations constantly seek to improve their political and fiscal framework to offer competitive conditions for the shipping sector. Today 70 % of the world fleet in terms of gross tonnage is registered in open registers. (Clarkson, 2020)

A review of relevant and current literature dealing with management decisions in regard to the choice of flag showed a variety of key criteria that seem to be important when deciding on the flag or even the place of business. In addition, a generalized view about advantages and disadvantages of different registry regimes could be derived. By conducting interviews with academics and professionals alike, *Chou* found that certain stereotypes are associated with the choice of flag system. (Chou, 2018) His research shows that a national registry system is often associated with high quality standards, such as good management systems plus benefits provided by the respective States, such as cabotage reservation or government subsidies. Still, this apparently comes with a disadvantage of high operational costs and taxes. Flags of Convenience seem to operate near the other end by providing favorable tax systems, high operational flexibility and liberalization, easy access to and/from the registry, liberal crewing standards in regards to nationality and minimal bureaucracy. On the negative side, open registries are associated with a lack of willingness to impose national or international regulations and subsequent safety doubt issues. (Chou, 2018)

Where these assumptions are certainly true for some open registry States, it is not true to conclude that all open registries operate at the lower bottom of standards and quality. In fact, for the open registries mainly used by Swiss shipowners, namely the Marshall Islands, Liberia and Panama, the International Chamber of Shipping indicate very high standards in their Flag State Performance table. (ICS, 2019) In addition, if the quality of a nation's fleet would be measured by age, where a young fleet is deemed to be of higher quality, especially the fleets of Liberia and the Marshall Islands show a very young average age with 11.4 years (Liberia) and 9.3 years (Marshall Islands). (Clarkson, 2020) The fleet of the Marshall Islands is even the youngest fleet of at least the top 30 Flag States in terms of gross tonnage. (Clarkson, 2020) Both registries participate in the Green Award Program<sup>8</sup>, offering tax deductions for ships that are rewarded with a Green Award certificate. Other ship registries, e.g. Hong Kong and Singapore, offer individual incentive schemes to attract high quality ships. These include tonnage charge reductions based on the Port State control performance or environmental performance. (Deloitte, 2017)

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<sup>8</sup> <https://www.greenaward.org>

Even though the specific criteria differ among the reviewed literature, the core statement remains the same. The most important factor regarding the choice of flag is the desire of the shipowners to keep their operational costs as low as possible. Chou tried to quantify the importance of key criteria<sup>9</sup> for ship flag registry choice and found that the operating costs are the most important factor with an overall weight of 47 %. Within this criteria he found that the sub-criteria *related taxes* has the strongest weight, with 65 % within the peer group *operating costs* and 31 % of the overall decision making process. (Chou, 2018) Deloitte used a similar approach in their EU Shipping Competitiveness Study (Deloitte, 2017), but used a more detailed system of eight competition factors and 53 sub-factors.<sup>10</sup>

Deloitte flag competition factors with decision weights (Deloitte, 2017):

1. *Taxation and fiscal incentives (30 %)*
2. *Skills (15 %)*
3. *Availability of professional services (15 %)*
4. *Regulatory, economic and political factors (12.5 %)*
5. *Flag Attractiveness (12.5 %)*
6. *Ease of doing business (7.5 %)*
7. *Legal framework for vessel exploitation (5 %)*
8. *Availability of finance (2.5 %)*

At this point, it must also be mentioned that the rate of a tonnage tax or tonnage levies within the competition factor *Taxation and Fiscal Incentives* contributes a surprisingly small share of 7.5 % to the decision making process. In assessing the fiscal regime, the Deloitte study identified the following eight subfactors (Deloitte, 2017):

- a. ***Effective rate of taxation for shipping companies (25 %)***: meaning a holistic view of the wider tax system
- b. ***Ability to accommodate ancillary revenue streams in tax incentive schemes (15 %)***: indicates the broadness of offered shipping incentives, i.e. whether or not revenues of other business activities can be included under a tonnage tax regime
- c. ***Qualifying requirements for tax incentives (15 %)***: strictness of eligibility requirements to the fiscal treatment
- d. ***Avoidance of double taxation (12.5 %)***: through double tax treaties

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<sup>9</sup> The model quantified four key criteria, namely *national policies and laws, market conditions, operating costs and international law and restrictions*, with an overall of 14 sub-criteria

<sup>10</sup> Deloitte identified eight factors with an overall of 53 sub-factors.

- e. **Existence of other fiscal incentives (12.5 %):** Existence of other fiscal incentives, leading to a lower tax for the shipping sector
- f. **Corporate income tax rate (10 %)**
- g. **Tonnage taxation/levies (7.5 %):** the rate of tonnage tax/levies payable
- h. **Available rate of depreciation for ships (2.5 %):** the faster a firm can depreciate vessels, the higher the present tax savings

Even though the decision making matrices developed by different researchers regarding the choice of flag differ in regard to their level of detail and to the individual weight of different factors, the basic conclusion remains similar. The choice of flag is a very complex management decision with numerous factors involved, where a favorable taxation system and fiscal incentives is regarded as the foundation. For example, the Deloitte study describes that the existence of a low/no tax regime for shipping generated income is a necessary condition for shipowners to be competitive in the global market. (Deloitte, 2017) Thus, the weighing factor of 30 % for taxation and fiscal incentives might be true for a quantification of the final decision but has to be regarded as essential prerequisite at an earlier stage of the decision making process. The other named factors are certainly important for the decision making process, but only in second step. Thus, if a State does not ensure the foundation of competitive taxation and incentives, shipowners probably would not choose that State for their ships' flag or even their ship management domicile, even in an otherwise advantageous environment.



## 4.2 Tonnage Tax and Incentives in Switzerland

To address the risk of flagging out and relocation of shipping companies to low-tax countries the measure of choice for a lot of traditional maritime nations has been the introduction of a tonnage tax system, where the tax of shipping services is determined on a fictitious profit that is usually calculated based on the ship's net tonnage. This system is also used by several open registry countries. Apart from a generally low tax burden, a tonnage tax system is very easy to administer, both for the taxpayer and for the administration. Countries that do not offer a tonnage tax system often offer other fiscal incentives such as tax-discounts or tax exemptions. Singapore, for example, offers a generally low tax regime with extensive and broad shipping incentives, like tax exemptions for Singapore flagged shipping operations and foreign-flagged shipping operations under conditions of economic activity in Singapore. (Deloitte, 2017)

Instead of introducing a tonnage tax, Switzerland opted for the instrument of solidarity guarantees to support Swiss shipping. The Swiss ocean-going fleet was continuously expanded over decades. This expansion was specifically promoted in the 1990s and 2000s. On the one hand, the federal government granted flexible guarantee conditions from 1992 onward - with the introduction of joint and several guarantees and an increase in the maximum guaranteed amount from 70 to 85 percent of the construction or acquisition costs plus any annual interest. On the other hand, Parliament successively increased the framework credit available for guarantees from 350 million Swiss francs in 1992 to 600 million in 1997 and finally to 1.1 billion in 2008. This system enabled Swiss shipowners to obtain secure, low-interest financing for their ships even in economically difficult times. However, with a loan-to-value ratio of up to 85 percent, the Swiss Confederation shares most of the entrepreneurial risk. (Finanzdelegation der Eidgenössischen Räte, 2020)

In the years between 2015 and 2017, the economic difficulties of two companies led to their insolvency and, in 2017, to the drawing of federal guarantees, which meant a financial loss for the federal budget of CHF 204 million. As early as December 2016, the Federal Department of Economic Affairs, Education and Research came to the conclusion that the importance of deep-sea shipping for Switzerland's security of supply had to be put into perspective. Based on this realization, the Federal Council decided not to propose to Parliament a renewal of the guarantee framework credit, which expired in June 2017. (Finanzdelegation der Eidgenössischen Räte, 2020)

Since the termination of the solidarity guarantee scheme in 2017, Switzerland has not offered any alternative fiscal incentives for ship owners. In addition, the Swiss fiscal system does not seem to be internationally competitive compared to other ship registry countries. In 2018, the Swiss Institutes of Comparative Law conducted a comparative law study on maritime registration that looked at the administrative component of registration as well as the fiscal component from incentives and taxation. (Nadakavukaren et. al, 2018) This study confirms the assumption made by ISL. The absence of any financial incentives was also confirmed by the SMNO in the follow-up to the aforementioned study. (Schweizerisches Seeschiffahrtsamt, 2018) The fact that no new ships have been added to the Swiss Ship Register since 2017 underlines this view. (Finanzdelegation der

Eidgenössischen Räte, 2020) Due to the threat of the Swiss flag being blacklisted under the Paris MoU, and the potential negative economic impact this could have on ships remaining in the Swiss register, Swiss shipowners have been able to temporarily flag-out their ships since the end of 2020. This measure could cause the Swiss flag to lose further shipping tonnage, at least in the short term.

In order to restore Switzerland's competitiveness as a shipping location, Swiss shipowners are demanding, among other things, the introduction of a tonnage tax system and the abolition of the so-called stamp duty. (Swiss Shipowners Association, 2020) In 2016, Parliament instructed the Federal Council to re-examine the constitutionality of the tonnage tax and to formulate a preliminary draft. The examination of the introduction of a tonnage tax was formulated as a goal of the Federal Council for the first half of 2020 but has then been postponed to the second half of 2020. At its meeting on October 14th 2020, the Federal Council decided, on the basis of a discussion paper, to pursue the project of introducing a tonnage tax. It instructed the Federal Department of Finance to prepare the documents for the opening of an external consultation procedure by the first quarter of 2021. In this context, the question of the constitutionality of the tonnage tax should be duly addressed. (Goumaz, 2020) This consultation procedure, a so called *Vernehmlassungsverfahren*, was opened on 24<sup>th</sup> of February 2021. (Eidgenössisches Finanzdepartement EFD, 2021)

In addition to a tax system for shipping that is not competitive on an international level, Switzerland also levies a so-called stamp tax on securities and insurance, which further restricts Switzerland's competitiveness as a shipping location. Insurance companies collect stamp taxes on behalf of the federal government in the amount of 5% of the premium volume from the insured company. This includes hull insurance and so-called protection and indemnity contracts for seagoing vessels. (Swiss Shipowners Association, 2020)

### 4.3 Effects of a Tax Regime on Fleet Size

Although the introduction of a tonnage tax would be beneficial to the competitiveness of Switzerland as a shipping location it is questionable to what extent the mere introduction of such a measure would actually lead to a growth of a Swiss fleet and to the flagging-in of ships. Here, the *Institut CREA* of the University of Lausanne conducted a study in 2015 about the effects the introduction of a tonnage tax system would have on the Swiss operated fleet and employment in the shipping sector, quantifying the effects by using econometric modeling using the examples of Germany, France, Denmark and the United Kingdom. The CREA found that, all other things being equal, the countries that have introduced a tonnage tax system have benefited from an increase in their tonnage volume of 91 %. (Institut CREA d'économie appliquée, 2015) The just mentioned phrase *all other things being equal suggests* a direct causality. The CREA then assumed a direct proportionality between the increase in tonnage, the increase in maritime activity, and the increase in direct employment in the shipping sector. (Institut CREA d'économie appliquée, 2015) By applying the increase of 91 % to the direct employment of the Swiss shipping industry, the CREA concluded that the introduction of a tonnage tax would

mean, on a conservative calculation, an increase of 640 jobs. (Institut CREA d'économie appliquée, 2015) According to the Swiss Shipowners Association, in a 2020 study the CREA even estimates that 1,200 jobs would be created due to the implementation of a tonnage tax system. (Swiss Shipowners Association, 2020)

There is no question that the introduction of tonnage taxation in the countries considered by CREA has contributed greatly to their fleet expansion. However, it remains questionable whether the CREA has sufficiently taken into account the country-specific characteristics as well as the global economic and financial environment.

Taking Germany as an example, the number of German-owned vessels increased by 106% after the introduction of the tonnage tax in the period from 1998 to 2012. Tonnage (GT) even increased by 394% in the same period. Since then, the German fleet has been shrinking continuously and in 2021 is only 3% higher in terms of the number of ships than in 1998. In terms of tonnage, however, the absolute growth is still around 142%. Since 2012, the German fleet has shrunk by around 50% in terms of number of ships and 51% in terms of tonnage, while the global merchant fleet has grown by around 13% in terms of number of ships and 31% in terms of tonnage over the same period (see Illustration 8).

Even though the rapid growth of the German fleet could only happen because of the tonnage tax system, it was a special feature of the German corporate law that served as catalyst, namely the German KG-model (KG=Kommanditgesellschaft=limited partnership). The KG-model in combination with the tonnage tax enabled private investors to directly benefit from the very low taxes when investing in ship funds. When the 2008/2009 crisis hit and freight rates were going down, not only did the ship funds fail to deliver the promised returns, but instead private investors lost a large part of their money. Since the collapse of the KG financing system, German owners have ordered hardly any new ships on the one hand, and have been forced to scrap or sell (abroad) their ships on the other. According to the German Shipowners' Association, most ships were sold to financially strong Greek owners, followed by buyers in China and Singapore. Still, if anything, the fiscal situation for shipping in Germany has actually improved. The German tonnage tax system is still in place and Germany even installed incentives in order to keep the number of German flagged ships stable despite the shrinking fleet. Today, the German fleet consists only of 1,844 ships with a mere 290 ships flying the German flag. (Bundesamt für Seeschifffahrt und Hydrographie, 2021)

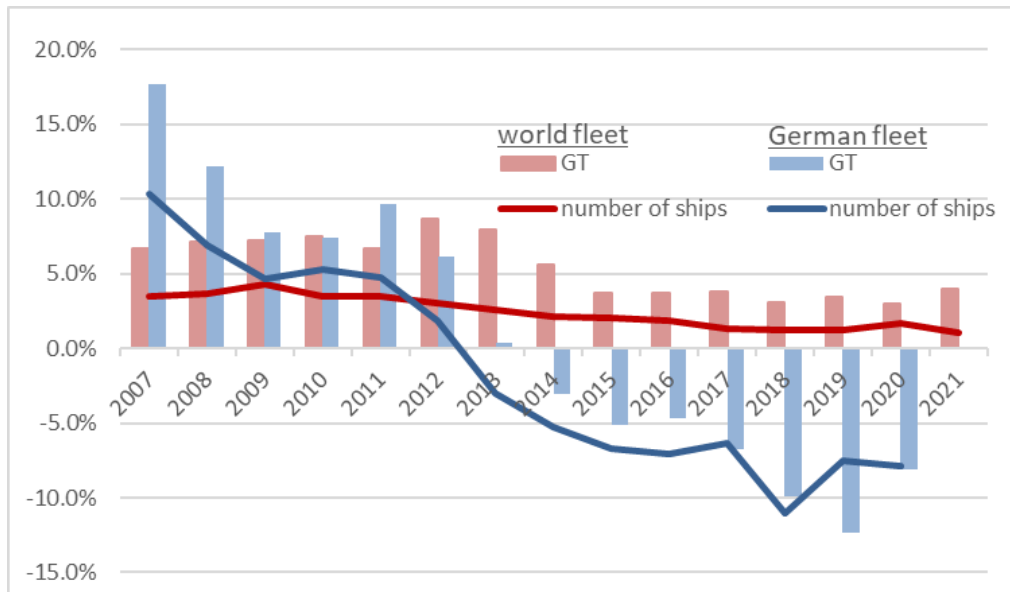


Illustration 8: Comparison fleet development (y-o-y) world fleet and German fleet 2007 to 2021  
 Reference: ISL (2021) based on Clarksons SIN and German Federal Maritime and Hydrographic Agency /German Shipowners' Association

Even if the conclusion of the CREA, that the tonnage tax introduction was causal for a 91 % growth in tonnage, was accurate, the assumed proportionality between the increase in tonnage, the increase in maritime activity, and the increase in direct employment in the shipping sector seems arbitrary. First, the increase in average ship sizes is not taken into account and second, economies of scale are ignored. Taking Germany as an example, although the total tonnage has increased fivefold from 1998 to 2012, the number of ships has only increased by a factor of two. At least in the area of ship management, however, it is not so much the size of the ship but rather the number of ships that is decisive. In the area of chartering, larger units can undoubtedly lead to an increase in the work involved; this applies in particular to container and cruise ships, where the number of containers or passengers, and thus the number of bookings, actually increases with the size of the ship. Such a causality is not to be expected e.g. in the tanker or bulk shipping sector, where larger ships do not have a similar impact on the number of individual lots. For example, in 1996 Maersk's K-class had a maximum capacity (max. capacity of loaded TEUs à 14 to) of 6,000 TEU at a tonnage of about 81,000 GT. Ten years later, the Emma Maersk class already had a capacity of 11,000 TEU (max. capacity of loaded TEUs à 14 to) at a tonnage of about 151,000 GT. The growth of TEU and tonnage was thus almost proportional. Handy-size and Handymax bulk carriers usually have 5 holds with capacities ranging from 25,000 to 60,000 dwt. A capsized bulk carrier can have a capacity of up to 200,000 dwt with only 9 holds. Thus, for bulk trade it is mainly the size of an individual lot that increases with the ships size, rather than the number of lots, and by that bookings involved.

It could be shown that the introduction of a tonnage tax regime can help to establish a competitive environment for the shipping sector and by that to increase a nation's fleet substantially. It must be noted, however, that the overall framework determines whether and to what extent shipowners choose to locate in a particular country. Using Germany as an example, it was demonstrated that strong long-term competitiveness is essential

for sustainable fleet growth and that continuous adaptation to the needs of the shipping industry is required. Today, mainly all maritime nations have introduced favorable tax regimes and incentives to compete with the open registry States, and by that levelled the international playing field in this regard. (Marlow and Mitroussi, 2011) However, this also means that a much greater effort is now required to persuade companies to relocate their operations or parts of their operations to another country. Still, even if the introduction of a favorable regime of taxes and incentives would not lead to an absolute growth in tonnage and/or resident management firms, it could certainly relieve pressure from the shipping companies that are already located there. (Marlow and Mitroussi, 2011)

### **4.4 Connection between tax regime, fleet growth and flagging-in**

An additional question that arises is, what influences the installation of a competitive environment of taxation and incentives and a subsequent hypothetical fleet growth have on the number of ship's flying that nations flag. That means, whether and to what extent the mere introduction of such a system would actually lead to the flagging-in of ships.

In their paper *Shipping taxation: perspectives and impact on flag choice* (Marlow and Mitroussi, 2011) Marlow and Mitroussi analysed the impact of the introduction of the UK tonnage tax. They found that in case of the UK the introduction of the tonnage tax regime led to a greater commercial presence by foreign owned ships enhancing the maritime cluster by the establishment of management firms, but that it did not attract UK-owned vessels registered under a foreign flag back to the UK flag. (Marlow and Mitroussi, 2011) Another key finding of the paper was the importance of national affiliation in the choice of flag. Marlow and Mitroussi found that *"if the aspect of national affiliation, with all its implications, is not present in the choice factors that make a national flag appealing, then it will tend to compete with the rest of the flags, open registries or not, on an equal footing. In this case, the mere introduction of favourable tax regimes will not be enough to effect 'flagging in'; it will be either the level of absolute tax savings than [sic] can be made by using different flags, [...]"* (Marlow and Mitroussi, 2011)

Marlow's and Mitroussi's finding is especially true, when the participation in a tonnage tax regime or any other fiscal incentive is not linked to the use of the flag of the offering State, but merely to the strategic and/or commercial management in said State. For example, Switzerland could introduce a tonnage tax regime where in order to participate the strategic and/or commercial and/or technical management has to lie within the Swiss confederation, but the choice of flag for a qualifying vessel is not restricted to the Swiss flag but instead extended to flags of EU or EFTA States. Then Swiss shipowners might be eligible to profit from the tonnage tax regime, even though none of their ships are actually under Swiss flag. Apart from companies that only offer maritime transportation services, the Swiss owned fleet to a significant extent consists of ships in the ownership of international trading companies. These companies are mainly large multi-national enter-

prises with complex international company structures. These firms have existing management firms in main maritime clusters, e.g. Singapore, and by that assumingly a low affiliation to a specific flag.

The comments of various stakeholders in the Swiss maritime industry particularly highlight the importance of introducing a tonnage tax to strengthen the competitiveness of the maritime industry, while strengthening the Swiss flag seems to be of secondary importance. For example, the Swiss Shipowners Association as well as the STSA were actively promoting a tonnage tax that should not be linked to the Swiss flag alone, but also allow flags of the EU, EFTA or other trading partners. (Swiss Shipowners Association, 2020; Swiss Trading & Shipping Association (STSA), 2021) The current consultation procedure shows that the government intends to adopt the regulations on the ship's flag demanded by the aforementioned associations with regard to the tonnage tax. According to the report on the consultation procedure on the Federal Tonnage Tax Act of February 24, 2021, the Swiss tonnage tax is to be based on the EU guidelines, according to which a shipping company or charter company domiciled in Switzerland is to be allowed to opt for tonnage taxation, provided that at least 60 % of the tonnage is operated under the Swiss flag or the flag of an EEA member state. The report also addresses the fact that the EU guidelines stipulate that shipping companies that currently operate less than 60 % of their tonnage under a member flag must increase this percentage or at least maintain it at the same level. (Eidgenössisches Finanzdepartement EFD, 2021) Thus, Swiss domiciled shipping or charter companies could benefit from a tonnage tax regime, even without operating any of their ships under Swiss flag.

Apart from the conclusion that there is no direct connection between the introduction of a tonnage tax, or the growth of a nation's fleet respectively, and the flagging-in of ships, the conclusion reached in the previous section that it is not individual factors that are decisive for a management decision, but rather the combination of all relevant factors, could be underscored.

### **4.5 Shipowner and Vessel Eligibility**

The (Swiss) Maritime Navigation Act (Die Bundesversammlung, 1953) and the (Swiss) Maritime Navigation Regulations (Der Schweizerische Bundesrat, 2013) contain various requirements that must be met by the owner and the corresponding ships in order for a ship to be entered in the Swiss Ship Register.

For a ship to be entered in the register, in summary it has to meet the following requirements:

- Seaworthy vessels with a minimum of 300 GT (Art. 30 (Swiss) Maritime Navigation Act)
- Only seagoing vessels used or intended for the commercial carriage of passengers or goods or for any other commercial activity at sea (Art. 17 (Swiss) Maritime Navigation Act)
- Ships must comply with the relevant international conventions (Art. 9 (Swiss) Maritime Navigation Regulations)

Unlike many other Flag States, the Swiss flag does not have any restrictions on the age of ships and is basically open to all ships in this respect.<sup>11</sup>

While the admission requirements for the ships are rather low in international comparison, the requirements for the owner, especially with regard to nationality, are to be considered very strict. Art. 19 (Swiss) Maritime Navigation Act is the basis under which companies registered in the Swiss commercial register can register their seagoing vessels in the register of Swiss seagoing vessels in their name. The basic prerequisite is first of all that these companies have their registered office and their actual center of business activity in Switzerland. All other nationality requirements are delegated to the Federal Council and can be found in the (Swiss) Maritime Navigation Regulations. In summary, Articles 5 to 7 of the (Swiss) Maritime Navigation Regulations require that both economic and capital control must be in the hands of Swiss citizens. More precisely, for the registration of an ocean-going vessel in the Swiss register, it is not sufficient that the company has its actual domicile in Switzerland and that the economic control is exercised from Switzerland, but that, in addition, natural persons, such as owners, or large parts of the shareholders must not only be domiciled in Switzerland, but must also be Swiss citizens.

Here, for example, the Swiss Shipowners Association is calling for a partial departure from the strict nationality requirements and an extension to EU/EFTA citizens/interests, while retaining the basic requirement that the domicile and management and actual ship-operation must be from Switzerland. (Swiss Shipowners Association, 2020)

The SMNO and the Swiss Shipowners' Association have raised fundamental concerns about the legality of these strict nationality requirements. In a report of the Federal Department of Economic Affairs, Education and Research, (Eidgenössisches Department für Wirtschaft, 2016) the lessening importance of maritime shipping under the Swiss flag for national supply is described, which in the view of the SMNO and the Swiss Shipowners Association does not constitute a public interest in a nationality restriction that differs from that of other transport sectors, where no such reservations exist, and which could justify discrimination against EU/EFTA citizens. According to the SMNO, this opinion is shared by the Swiss Maritime Law Association and the Federal Department of Justice, among others.

It is important to note that ISL assumes that the strict nationality criteria do indeed contribute to the unfavorable competitive position of the Swiss flag, but that they are not the cause of the current situation and the ongoing decrease of the Swiss flagged fleet. A look at the current Swiss flagged fleet list shows that only four companies currently operate the 18 registered ships. The total fleet of these four companies is currently 36 vessels, hence only 50% of the fleets of these companies are registered in the Swiss register. Only one shipping company operates its entire fleet under the Swiss flag. Since the termination of the guarantee scheme in 2017, only one newbuilding has been added to the fleets of these four companies flying the Marshall Islands flag and another is expected in 2021, which is also expected to be registered in the Marshall Islands. (SWI swissinfo.ch,

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<sup>11</sup> E.g. Liberia and the Marshall Islands generally demand the ship's age to be less than 20 years

2020) The fact, that since the termination of the guarantee scheme no new vessels have entered the Swiss register, that new buildings are instead being registered under open flags and that half of the fleet of the remaining four companies is already operated under foreign flags, leads to the assumption that the prevailing reason to register ships in the Swiss registry were the financial advantages in financing ships due to the State guarantees.

#### 4.6 Flag State Performance

An analysis of the Flag State performance lists of the Paris and Toyo MoU over the last 20 years has shown that the Swiss flag was almost consistently grey-listed in the Paris MoU. In the Tokyo MoU regime, the Swiss flag performed well until 2006 and was consistently on the white list. Since 2006, a deterioration in performance has been observed, so that the flag is also consistently on the Grey List in the Tokyo MoU. It should be noted that the vast majority of Flag States are on the white list (Tokyo MoU 40 out of 69; Paris MoU 41 out of 70). According to the SMNO the Swiss flag will be found on the white list of the Tokyo MoU from mid-2021 onwards. An analysis of the Port State control data revealed that this bad performance was mainly due to the low quality of two companies that went into bankruptcy in the meantime.

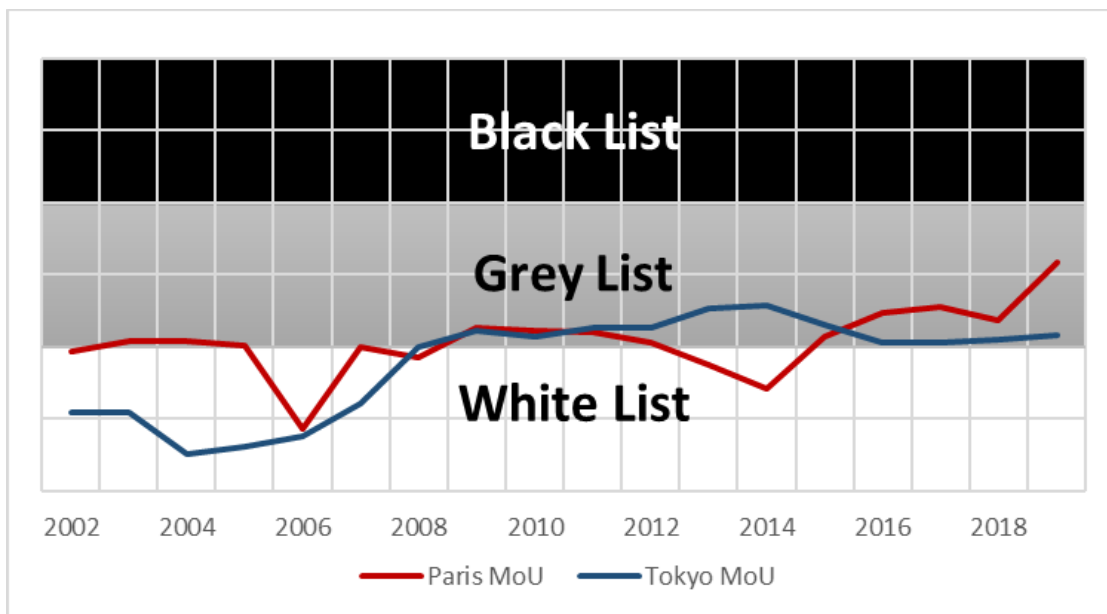


Illustration 9: Paris MoU and Tokyo MoU Flag State performance of the Swiss flag  
Reference: ISL (2021) based on Paris MoU and Tokyo MoU inspection databases

Since 2014 the performance of the Swiss flag has constantly been worsening in the member States of the Paris MoU and slipping down to the so called *Black List* of the Paris MoU is imminent. If that happened, the Swiss Shipowners Association expects a severe impairment of the competitiveness<sup>12</sup> of Swiss flagged ships that could even lead to insolvencies

<sup>12</sup> Ships on the Black List are inspected more frequently and are threatened to be detained more often relative to white list ships. These ships are therefore less attractive for charterers and achieve lower rates, especially in times of a difficult market environment.



of the affected shipping companies, in a worst case scenario (Swiss Shipowners Association, 2020). In September 2020 Art. 11 a was added to the Regulations on the Guarantee of Loans for the Financing of Swiss High Seas Ships (Der Schweizerische Bundesrat, 2002)<sup>13</sup>, enabling Swiss shipowners to flag ships, for the financing of which the Federal Government has entered into a guarantee, out to foreign registers under certain conditions, if inter alia a black listing is imminent.

Whereas the implementation of a competitive fiscal regime lies with the government or the legislative power respectively, the Flag State performance in regard to the just mentioned Port State control regimes is strongly linked to the administration of the Flag State as executing authority and the enforcement of safety and quality criteria over the nation's flagged fleet or their owners/operators respectively. Even though the prime responsibility for compliance with the requirements laid down in international maritime conventions lies with the shipowner/operator (Paris MoU, 2021), Flag State responsibilities are firmly anchored within international law (UNCLOS, 1982) and the responsibility in ensuring the compliance remains with the Flag State. (Paris MoU, 2021) The UNCLOS is very clear in this respect and states that *every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, inter alia, to the construction, equipment and seaworthiness of ships.* (UNCLOS, 1982) Thus, even if the mediocre performance of the Swiss flagged ships was mainly due to two individual companies, the SMNO cannot fully evade its responsibility. Here, the inclusion in the Grey or Black List sends a strong message to the Flag State, that the *"consistent pattern of infractions by individual vessels gives rise to a presumption that the flag State has not exerted its best efforts."* (Takei, 2013a) The current detention statistics show that the remaining companies have performed well within the last three years and there is a good chance that the Swiss flag can be found on the White Lists of both the Paris and the Tokyo MoU in due time. But, one has to keep in mind, that the Swiss fleet will get older and with that the maintenance effort and the risk for deficiencies and detentions will rise.

Looking at the average age of the Swiss flagged fleet<sup>14</sup> over the last 15 years, it is noticeable that it has consistently been one of the youngest fleets in the world, and the fleet's maintenance effort should be correspondingly lower than for older fleets. Here, it is very striking that despite an average age of 7.5 years in 2008 to 12.14 years in 2020, the Swiss fleet has been almost consistently on the Grey Lists of the Paris and Tokyo MoUs and is now even in danger of slipping to the Black List of the Paris MoU. The Swiss fleet also shows a very homogeneous distribution of ship age, so that in 2017, the year of the highest fleet size, the oldest ship was only 12 years old. Looking at which Flag States are currently on the Paris MoU Grey or Black List, it is striking that Switzerland has by far the youngest fleet with an average age of 12.14 years, and apart from Switzerland only three of the 29 flags listed here have an average age below 20 years, namely the fleets of India (18.47 years), Kazakhstan (18.94 years) and Tuvalu (18.69 years). The vast majority of Flag States on the Grey and Black List of the Paris MoU have fleets beyond 30 years of age

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<sup>13</sup> Verordnung über die Verbürgung von Darlehen zur Finanzierung schweizerischer Hochseeschiffe

<sup>14</sup> See also Section 3 on fleet development

and in some cases over 40 years, so that the average age of all Flag States on the Grey List is currently 25.9 years and on the Black List 32.6 years (not taking into account the fleet sizes of the individual States). Apart from Switzerland and Poland, no OECD country is on the Grey or Black List of the Paris MoU.

The fact, that the Swiss flagged fleet is almost constantly listed on the Grey Lists of the Paris and Tokyo MoUs, despite its very low average age, leads to the presumption, that the Flag State has not exercised its control effectively enough upon its ships. Because of the economic consequences of a black listing for Swiss shipowners the ISL assumes that shipowners would choose to flag their ships out under Art. 11a Regulations on the Guarantee of Loans for the Financing of Swiss High Seas Ships (Der Schweizerische Bundesrat, 2002) in case of a black listing what would further strengthen the ongoing trend of a shrinking Swiss flagged fleet.

### 4.7 Conclusion

The structure of management decisions in the shipping sector in regard to the choice of flag but also in regard to a business location, is complex and consist of numerous considerations in different sectors within a nation's legislation. It could be found that fiscal considerations are of utmost importance and that a favorable tax regime with strong incentives is a prerequisite to attract businesses in order to strengthen the maritime cluster and to create employment and value added. The international competition between national and open registry States led to a situation where mainly every maritime nation today offers a competitive fiscal system with incentives to hold and/or attract shipping and ship management firms alike. Because of the high-quality and strong incentives of open registry States today, countries with national registers have to make an ever greater effort to remain competitive. Still, today 70 % of the world fleet in terms of gross tonnage is registered in open registers, which clearly shows the strong affiliation of the shipowners towards these registries.

With the termination of the guarantee system in 2017, to-date Switzerland offers no fiscal incentives to either attract nor to hold ships in their register and since 2017 no new ships have entered the Swiss flag. Instead, inter alia bankruptcies led to a constant shrinking of the Swiss flagged fleet with the subsequent situation where the remaining fleet could face a potential black-listing in the Paris MoU in the near future. Keeping this environment in mind, the Swiss register as it is now is seen as internationally non-competitive. However, except of the mediocre performance in Port State controls, this situation is explicitly not seen as lying in the responsibility of the registry, i.e. in the area of administration, but rather at the State level. In particular, the lack of an all-encompassing shipping strategy can serve as an explanation here. The very strict nationality requirements to register ships in the Swiss register are certainly another factor lessening the register's competitiveness, but are not causal for its actual state. Nor would a liberalization of the nationality requirements as a first measure lead to regaining international competitiveness but needs to be embedded in an overall, interministerial long-term strategy with the intent to actually strengthen the Swiss flag.

## 5 Economic Relevance

This section serves as a scientific basis for the assessment of the four future scenarios with regard to the economic importance of the maritime economy within the Swiss economy, Switzerland as a Flag State, the Swiss fleet, and ships flying the Swiss flag.

More specifically, the following questions shall be answered by the findings of this section:

1. What is the importance of the maritime economy within the Swiss economy as a whole?
2. What is the significance of Switzerland's status as a Flag State in this context?
3. What is the importance of a Swiss fleet or ships flying the Swiss flag? And in this context:
  - a. Importance of commercial shipping
  - b. Importance of sports and pleasure shipping
  - c. Other types of shipping

### 5.1 Definition and Delimitation of Maritime Economy

Although the maritime economy initially seems to be relatively easy to define, the definitions often differ in detail. While it is easy to identify the cases where value is created directly at sea and in the maritime space to which it belongs, there are sometimes considerable differences in the scope and interpretation of land-based employment, which is considered to be part of the maritime economy. A systematic structuring and separation of the individual activities at various levels allows suitable delimitations.

In this project the term *maritime economy* means the following:

“The maritime economy includes organizations that directly use waterways or the maritime space economically or that produce, provide or maintain fixed, mobile, digital or personnel structures required for their use.”

The individual components of this definition are explained systematically in the following subsections.

#### 5.1.1 Waterways and Maritime Space

The first part of this analysis covers not only the provision of services of ocean or coastal related sectors of the industry, but also the economic added value taking place in connection with inland waterways. This eliminates many demarcation issues, such as between maritime and inland navigation or in the area of ship and boat building and the corresponding supply industry.

### 5.1.2 Direct Use

Direct use refers to the maritime added value that is directly generated in the sea or coastal area and the connected inland waterways. This includes primarily the transport of people and goods. Cruise tourism is also included in the definition as a special form of shipping.

The chosen definition of direct use excludes an indirect use of the maritime area. Thus, for example, companies involved in port-hinterland transport are not included in the maritime economy, although their business is completely dependent on waterborne transport. In addition, the requirement that the use must serve an economic purpose is included.

### 5.1.3 Provision of Required Structures

In order to exploit the maritime space in an economic sense various facilities, structures, supporting activities and industries are needed. First of all, there are mobile structures in the form of ships and platforms. Shipyards provide the construction of ships, while the upstream supply industry of shipbuilding and marine technology creates corresponding preliminary products. In this context, the maritime industry is not limited to Swiss customers. As in the industry statistics, it is irrelevant whether products are exported or not. When considering suppliers, it is also irrelevant whether their products are intended for export, as long as they are produced in Switzerland.

In addition, there is a provision of personnel structures that are indispensable for the economic use of the maritime space. These include the complementary services of port and waterway management tasks. The shipping companies should also be mentioned here. Although part of their work, namely their operation, i.e. the provision of passenger and goods transport, is already included in direct use, their role as ship owners is not. Shipping companies are understood to be both companies that offer maritime transport services with third-party ships and companies that own ships but lease them to third parties for operation, as well as corresponding mixed forms.

Services related to installation, repair and maintenance are also to be included, unless they are included in the operation of the corresponding facilities.

The definition of maritime industries used in this study includes only those complementary activities that are directly necessary to perform related services such as maritime and inland waterway transport. Cargo handling companies that ensure the provision of people and goods for ship transport are therefore included. The situation is different for employees in port hinterland logistics, whose activities can be found in the general cargo handling and transport sector that includes rail, road and air freight. This differentiation is not insignificant, as in maritime transport chains a considerable part of the value added is generated in the hinterland transport of goods.

#### 5.1.4 Included and Associated Economic Sectors

In order to capture the economic effects of the maritime sector, it is useful to distinguish between different branches or sub-sectors of the maritime economy. The general comprehensibility as well as the meaningful grouping in the course of the collection are to be considered. This results in four areas, which are defined as maritime economy in a narrower sense under consideration of the working definition. These are:

- Shipping
  - sea and coastal passenger water transport
  - sea and coastal freight water transport
  - inland passenger water transport
  - inland freight water transport
- Shipbuilding
  - building of ships and floating structures
  - building of pleasure and sporting boats
  - repair and maintenance of ships and boats
- Supply Industry
  - repair and installation of machinery and equipment
  - manufacture of machinery and equipment
  - manufacture of computer, electronic and optical products
  - manufacture of electrical equipment
  - other institutions
  - engineering, consulting, software
- Maritime service providers (Service activities incidental to water transportation)
  - activities related to water transport of passengers, animals or freight:
  - operation of terminal facilities such as harbors and piers
  - operation of waterway locks, etc.
  - navigation, pilotage and berthing activities
  - lighterage, salvage activities
  - lighthouse activities

In addition, marine technology is regarded as a component of the maritime economy in the narrower sense, but it plays a special role. It is considered in its cross-sectional function, since it is included in various other areas of the maritime economy. It is therefore included in other sub-areas and statistically considered therein.

All sectors listed use the waterways and the maritime space economically, whereas the shipping industry use the maritime space directly, the other sectors produce or provide or maintain the fixed, mobile, digital or personnel structures required for use.

In addition, there are further segments which are also to be included with their indirect function. These include:

- Research & education, consulting
- Administration & Associations

They form the maritime economy in a broader sense. The problem here is that most of these sectors do not operate within the market and their products do not have market prices. For this reason, the usual indicators cannot be used to record their economic activities. In these sectors, it is more difficult to make a clear distinction. Nevertheless, these sectors are important components of the maritime economy and must be considered accordingly.

## 5.2 Maritime Economy within Swiss National Economy

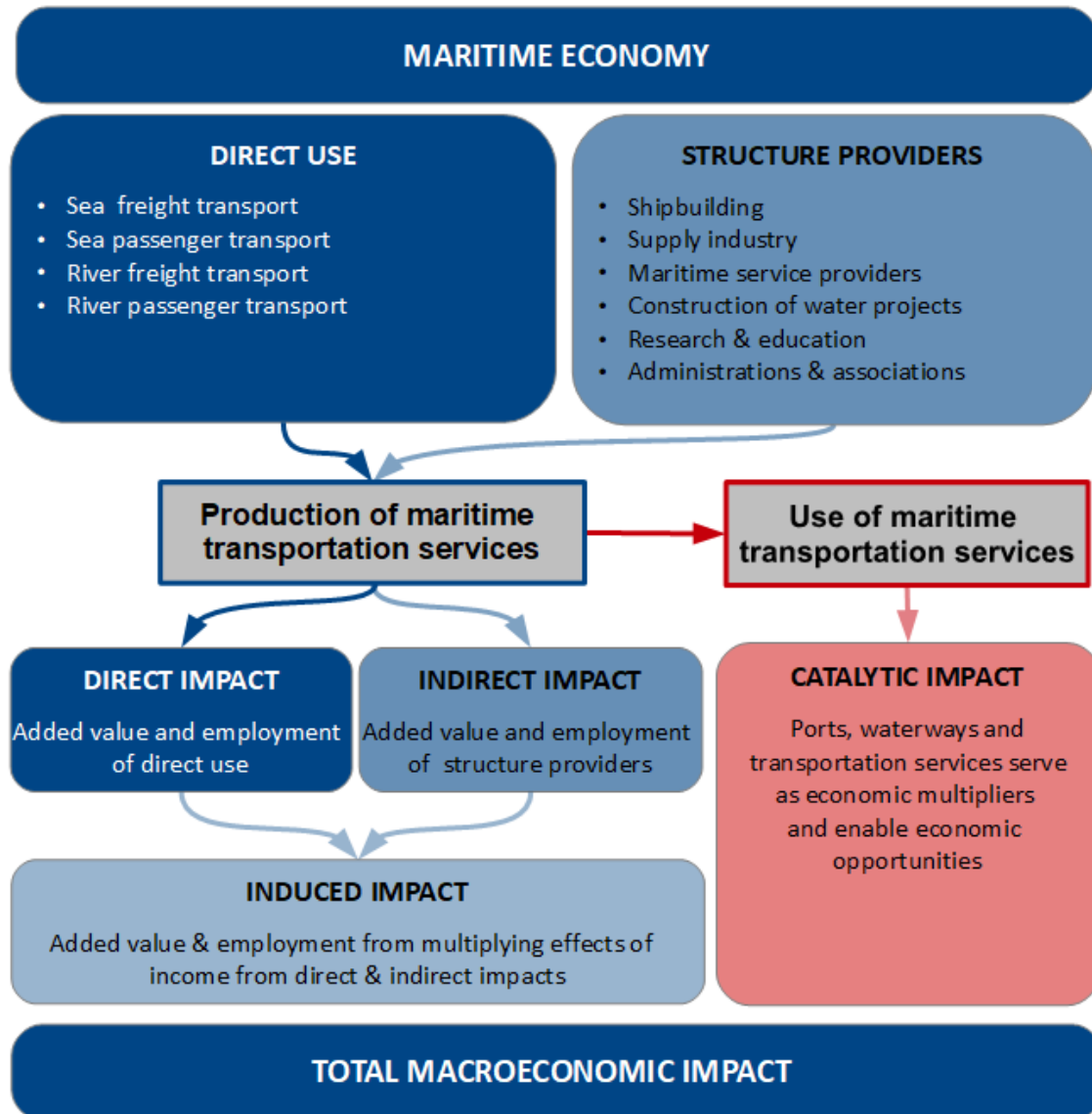


Illustration 10: Macroeconomic impact of the maritime economy on the Swiss national economy  
Reference: ISL (2021)

As described above, the maritime economy for the purpose of this study does not only include the enterprises directly engaged in shipping, but also maritime structure providers such as shipyards or suppliers. In order to illustrate the complex effects of the maritime economy on the Swiss national economy this study regards the direct use of the maritime space, i.e. the inland, coastal and ocean waterways, as point of view. Together with the inputs of structure providers, maritime transportation services can be provided.

Switzerland as a landlocked country has no direct access to the sea, hence a shipbuilding sector for seagoing ships is non-existent. Also, the majority of the Swiss based structure providers do not produce inputs for freight or passenger transportation services at sea. Still, these sectors form a part of the maritime economy that is essential for a competitive and export-oriented Swiss national economy<sup>15</sup>.

The total macroeconomic impact of the maritime economy on the Swiss national economy can be divided into four effects:

### **1. Direct impact:**

The direct impact includes the gross value added (turnover minus intermediate inputs) and employment of the companies engaged in shipping. These are companies that provide freight and passenger transport services at sea or inland. Because of the international character, especially of seagoing merchant shipping, the value added of the internationally active companies is determined by the employees based in Switzerland.

To quantify the relative importance of the four subsectors, namely *sea freight transport*, *sea passenger transport*, *river freight transport* and *river passenger transport*, publicly available statistics are used to determine revenue, gross value added and employment for each individual sector. Whereas employment and revenue statistics are available in a sufficient depth of detail from the Swiss Federal Statistical Office and the Swiss Federal Tax Administration, respectively, the national account statistics of the Swiss Confederation are not detailed enough to directly determine the gross value added for the shipping sector and is therefore estimated.

### **2. Indirect impact:**

The indirect impact includes the value added and employment from the preliminary processes of the "direct use" companies. The focus is therefore on the structure providers defined above. Whereas some sectors can clearly be allocated to the maritime economy in full, i.e. *shipbuilding*, *maritime service providers*, or *waterways engineering*, other Swiss based sectors produce only marginal preliminary input for the Swiss based shipping sector, i.e. *supply industry*, *research, education & consulting*, and *administrations & associations*. In addition, the relatively low level of detail provided by the Swiss Federal Statistical Office does not allow for a basic determination of the indirect effects of the shipping industry on the different subsectors.

A detailed quantification as done for the direct impacts would mean a disproportionate effort for the purpose of this study and is therefore only done where a sufficient statistical basis is available. Still, effects that cannot be quantified are analyzed on a qualitative basis.

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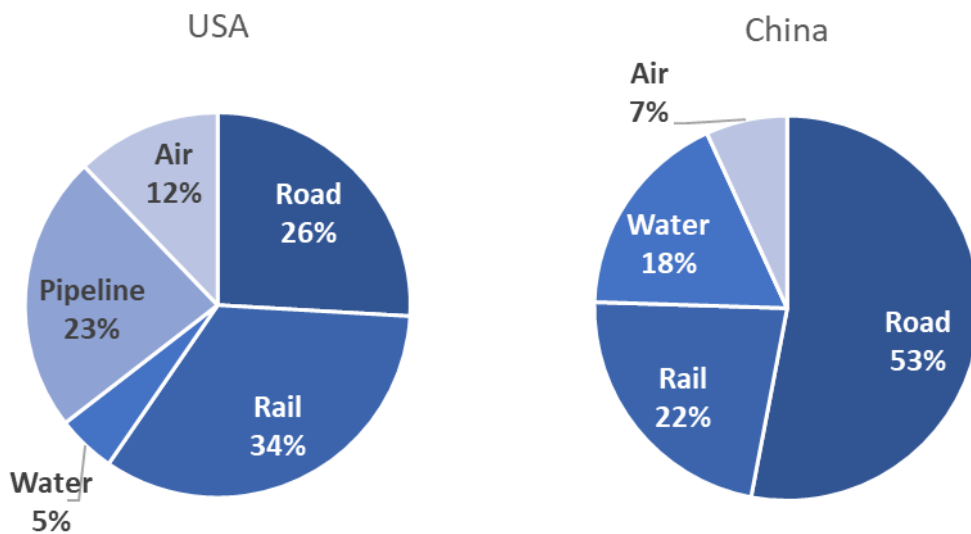
<sup>15</sup> Switzerland developed from a net importer with a trade deficit of CHF -11.252 million in 1980 to a net exporter with CHF 35.919 million in 2019 (external trade statistics of the Swiss Confederation)

### 3. Induced impact:

The induced impact includes the value added and employment created by the employees/investors of the direct and indirect impact enterprises spending their income again. The spending therefore leads to multiplier effects of income generated in the direct and indirect effect.

### 4. Catalytic impact:

Catalytic impacts mean benefits for the economy as a whole due to cost effective import and export of goods by ships. Here, the use of foreign trade statistics from the Swiss customs administration on import and export volumes by mode of transport could lead to false assumption regarding the importance of the shipping industry<sup>16</sup> for Switzerland's foreign trade. This statistical misleading shall be further explained by using the trade statistics between Switzerland and the USA as well as China respectively. The USA are the second most important export trade partner and number four when it comes to imports into Switzerland, in terms of value of goods. China ranks four for exports and sixth place for imports.



*Illustration 11: Shares of total trade volume by mode of transport  
Reference: Foreign trade statistics 2019 provided by Swiss Customs Administration*

According to the foreign trade statistics road transport accounted for 26 %, rail transport for 34 % and pipeline for 23 % of goods shipped to and from the US in 2019 in terms of transported volume in metric tons, while water transport accounts only to a marginal 5 %. For China road transport even accounts for 53 % of all transported goods to and from Switzerland, whereas water transport is only at 18 %. This is at least what could be determined at first glance from the foreign trade statistics by mode of transport. Such unrealistic conclusions can be explained by the fact that the statistics only record the

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<sup>16</sup> In this context the term shipping industry means the global shipping industry, with the Swiss shipping industry being part of it.



means of transport used at the time of the border crossing. Any subsequent or preliminary transfers to other means of transport, on the other hand, cannot be determined. Because of the fact that Switzerland is a landlocked country it seems logical that goods cannot cross the border on ocean-going ships but only on smaller inland vessels. That could lead to a situation where the importance of the maritime sector, especially the sea freight transport sector, seems undervalued in public debate.

These assumptions were recently confirmed in a study conducted by Logistics Advisory Experts GmbH, a spin-off of the University of St. Gallen, on behalf of the Swiss Shipowners Association. (Haeberle, Zacharias and Stoelzle, 2021) According to this study, the intercontinental share of Swiss exports is 11.9% and of imports 12.5% in terms of transported volume. It was determined that the main run of the import share was 98.9% and that of the export share 94.8% by ocean-going vessel. In terms of the value of imported and exported goods, the intercontinental share accounted for 40.4% of imports and 49.7% of exports in 2016. Due to the very high average values in air transport, e.g. due to the export of Swiss watches, the share of goods transported by ocean-going ship is significantly lower and amounts to 32.1% of imports and 18.4% of exports.

Apart from the actual importance of the physical im- and export of goods to and from Switzerland by ship, another sector that is highly dependent on ocean shipping gained more and more importance in the past 20 years – the merchanting of commodities.

In a working paper of the SNB on merchanting and account balances, the importance of this sector is explained. In this paper an IMF definition for merchanting is used, where merchanting means *“the purchase of goods by a resident of the compiling economy from a nonresident combined with the subsequent resale of the same goods to another nonresident without the goods being present in the compiling economy.”* (Kettemann and Krogstrup, 2013) The net profit of merchanting transactions, being the amount the domestic merchant received from the foreign customer less the amount paid to the foreign supplier, is recorded as positive export value of business services in the national trade statistics. (Kettemann and Krogstrup, 2013)

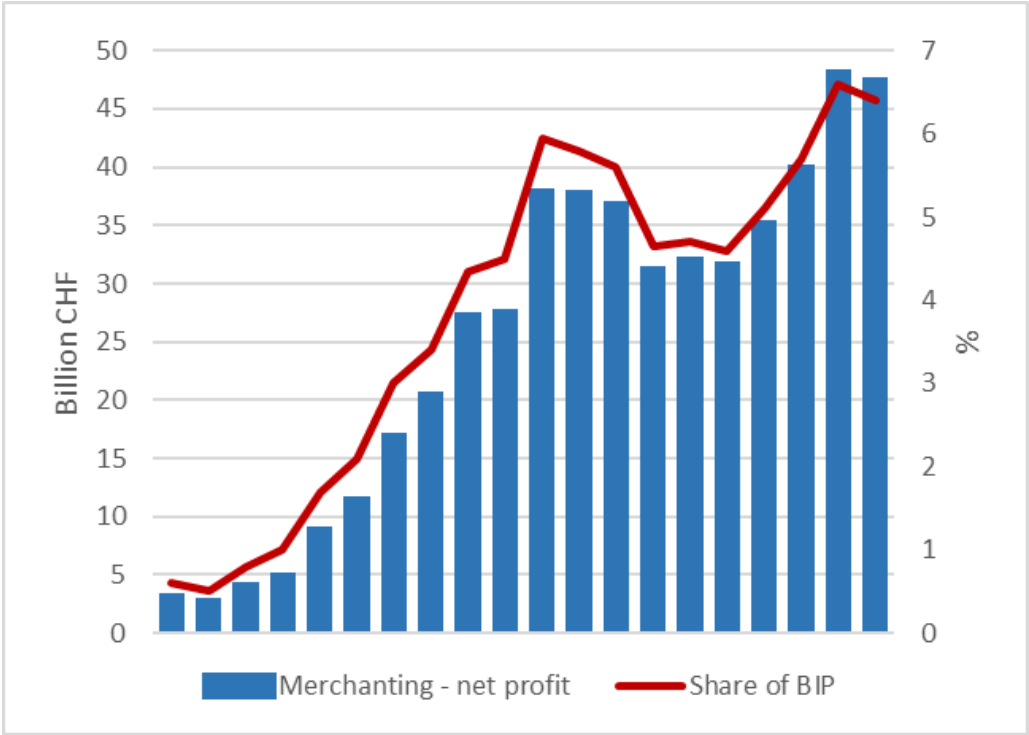


Illustration 12: Merchanting net-profit (in billion CHF) and share of Swiss GDP  
 Reference: ISL (2021) adapted from UBS

According to a recently published research paper of the UBS Switzerland AG, merchanting has evolved to the second largest trade sector. (Germanier and Bee, 2021) According to UBS net revenues of merchanting activities rose from 2.7 billion Swiss francs in 2000 to 47 billion Swiss francs in 2019 - an increase by a factor of 17. The share of nominal Swiss GDP increased over the same period from 0.6 to 6.4 percent. (Germanier and Bee, 2021) In 2019 the merchanting sector accounted for roughly 0.5 percent of employment in Switzerland with an overall of around 19,000 employees (full-time equivalents).

In 2016 the Swiss Academies of Arts and Sciences released an article about the Swiss commodities trade sector that inter alia illustrates the importance of Switzerland as international trading hub. According to this article at least one third of the world’s merchanting transactions with essential commodities like oil, metals and agricultural products is traded in Switzerland. (Lannen *et al.*, 2016) The researchers of the Swiss Academies found that up to 25 % of the world oil, 60 % of base metals, one-third of the grain trade, 50 % of the sugar trade and 60 % of the world’s coffee is bought and sold in Switzerland (see Illustration 13 13). (Lannen *et al.*, 2016)

Closely related to the international commodities business are activities in the field of deep-sea mining, which could possibly become important for an industrialized country like Switzerland in the long term. For example, the Swiss-registered company Allseas, with operational headquarters in the Netherlands (Eisenring, 2019), is already active in this field and has recently acquired an ultra-deepwater drillship for this application. (Brightmore, 2021) There could be long-term economic opportunities here as demand for raw materials increases, particularly for high-tech applications and the electrification of mobility. (Shukman, 2019) Currently, this area is still primarily of interest at the international political level and is therefore highlighted in Sections 6 and 7.

**Market shares of the largest international commodities trading hubs**

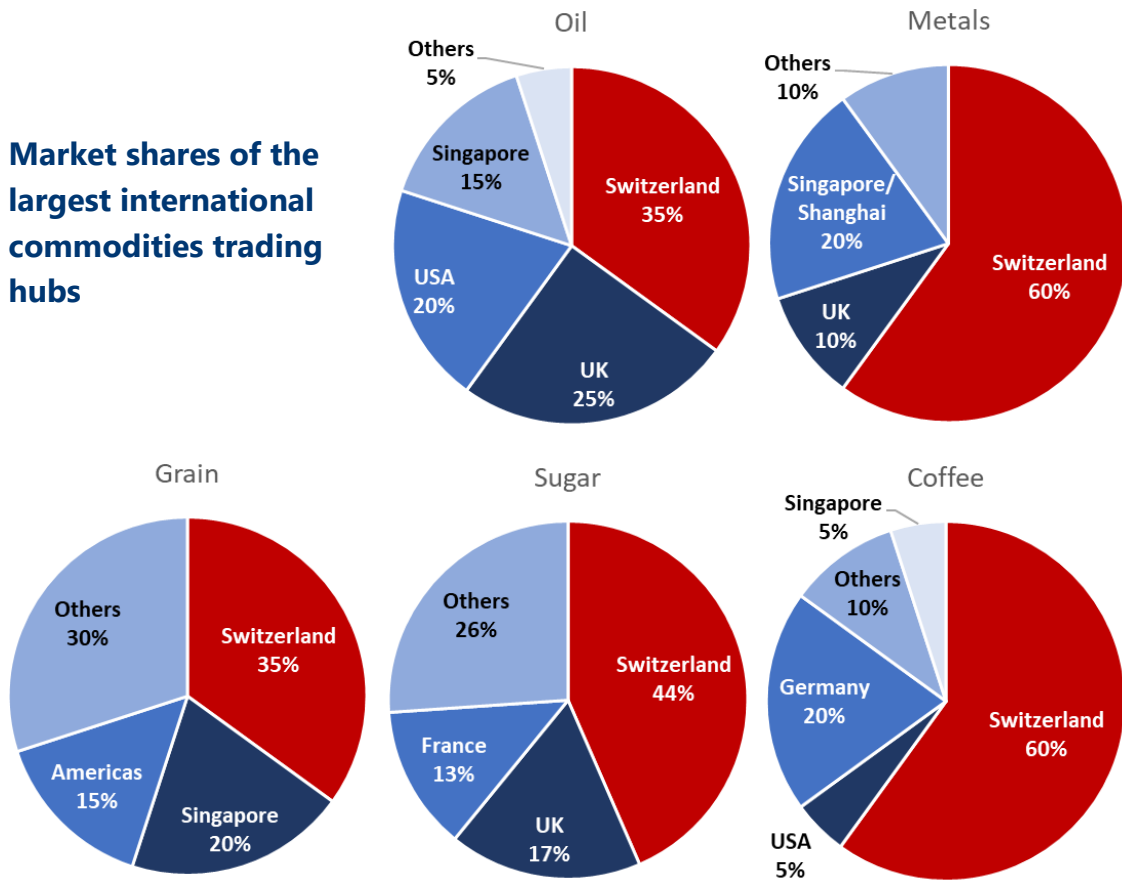


Illustration 13: Market shares of the largest international commodities trading hubs  
 Reference: ISL (2021) adapted from Swiss Academies of Arts and Sciences 2016

**5.3 Importance of Different Sectors on the Swiss Economy**

**5.3.1 Shipping**

Shipping comprises the commercial transport of people and goods by sea, in coastal areas and on inland waterways. The classes are clearly defined and recorded statistically in terms of revenue and employment under the classification numbers 50.10, 50.20, 50.30 and 50.40.

To determine the GVA of the Swiss shipping industry the national accounts statistics of the Swiss Federal Statistics Office were used. Here, the different branches are not as clearly defined as in the other mentioned statistics and the GVA is shown merely as total of the two branches (statistical divisions) 50 *Water transport* and 51 *Air transport*<sup>17</sup> and the GVA for the shipping sector as a whole, and in a second step for the sub-sectors, needed to be estimated. This was done by at first determining the average GVA to revenue-ratio of the EU for the sectors water and air transport. In a second step the ratio was applied to the revenue of the two divisions in the VAT statistics to get individual numbers for each division. In a third step these numbers were put into proportion with the total

<sup>17</sup> Upon request the Swiss Federal Statistics Office stated that there are no data available in greater detail.

GVA to get the estimated total GVA for the shipping sector. The distribution to the different sub-sectors was done by using GVA-statistics from Eurostat for the inland water transport section. For the sea and coastal water transport there were no data available and the distribution was estimated on average values from other countries.

NOGA 2008	Description	Revenue (Mio. CHF)		GVA (Mio. CHF)		Employees	
		2016	of Swiss total	2016	of Swiss total	2016	of Swiss total
50	Total	18,969	0.59%	1,935	0.29%	3,606	0.09%
50.1	Sea and coastal passenger water transport	116	0.00%	41	0.01%	470	0.01%
50.2	Sea and coastal freight water transport	17,814	0.55%	1,382	0.21%	918	0.02%
50.3	Inland passenger water transport	873	0.03%	434	0.07%	1,751	0.04%
50.4	Inland freight water transport	167	0.01%	79	0.01%	467	0.01%

*Table 1: Revenue, GVA and employment of the Swiss shipping sector  
Reference: VAT statistics Swiss Federal Tax Administration, national accounts & employment statistics from Swiss Federal Statistical Office*

In 2016, 3,606 employees generated a revenue of around CHF 19.0 billion. This results in a GVA of around CHF 1.9 billion. Table 1 also breaks down the economic indicators in the individual segments of shipping. The largest single segment in terms of revenue and GVA is sea and coastal freight water transport, with a revenue of nearly CHF 18 billion and a GVA of around CHF 1.4 billion. According to the employment statistics 918 people were employed in this sub-sector.

It could be found that at the End of 2020 only 76 ships of a total of 416 ships in Swiss-ownership were managed from within the Swiss confederation. The 30 management companies based in Switzerland also manage an estimated 65 ships that are not owned by Swiss companies. Thus, it is assumed that the major part of employment and value added is generated in the operation of ships, rather than in their management.

The second largest sub-sector in terms of revenue and GVA is the inland passenger water transport sector with a revenue of around CHF 870 million. According to the employment statistics this sub-sectors has the most employees with 1,751 people.

Even though the sub-sectors sea and coastal passenger water transport and inland freight water transport have much lesser revenues than the other two sub-sectors, together still almost 1,000 people were employed in 2016.

### 5.3.2 Shipbuilding

Shipbuilding includes all economic activities that are directly related to the production and repair of ships and boats or related floating objects, i.e. shipyard operations in the classical sense as well as repair and maintenance in ongoing operations. This includes vessels for commercial goods and passenger transport as well as vessels with special functions in the civilian and military sectors. The construction of ships and boats for private use is also included. The vessels do not necessarily have to be seagoing, as this part of the study also explicitly includes inland waterways or waters. In fact, for a land-locked country as Switzerland, the building of seagoing ships is not existent and seagoing boats are the exception rather than the rule.

The maritime sector shipbuilding consists of the construction of ships, boats and yachts as well as their repair and maintenance. The economic activities of shipbuilding companies can therefore be clearly defined statistically. Table 2 shows the key economic figures for shipbuilding. In 2016, a turnover of CHF 290 million was generated. In addition, shipbuilding companies were employers of a total of around 1,109 employees. Even though the sector does generate substantial revenue and employment, the importance for the Swiss economy is relatively low.

NOGA 2008	Description	Revenue (Mio. CHF)		Employees	
		2016	% of Swiss total	2016	% of Swiss total
	Total	290	0.01%	1,109	0.02%
30.11	Building of ships and floating structures	28	0.00%	98	0.00%
30.12	Building of pleasure and sporting boats	77	0.00%	351	0.01%
33.15	Repair and maintenance of ships and boats	184	0.01%	660	0.01%

Table 2: Revenue and employment of the Swiss shipbuilding sector  
Reference: VAT statistics Swiss Federal Tax Administration & employment statistics from Swiss Federal Statistical Office

### 5.3.3 Maritime Service Providers (incl. Ports)

The term covers services that enable navigation to be carried out including handling activities and the general operation of ports.

The maritime service providers are a heterogeneous group of different professions whose services are indispensable for the performance of shipping in particular. In general, these include the brokerage of freight capacities in shipping as well as pilotage, mooring and unmooring services, lighterage, ship chandlers, towing services, salvage, icebreaking, ship registration, the operation of lighthouses and the operation of ports including cargo handling. Because of the land-locked nature of the Swiss Confederation, services incidental to coastal and ocean shipping are not relevant.

The relevant companies together employed around 1,100 people in 2016. A turnover of CHF 2.9 billion was achieved.

NOGA 2008	Description	Revenue (Mio. CHF)		Employees	
		2016	% of Swiss total	2016	% of Swiss total
	Total	2,911	0.09%	1,101	0.02%
55.22	Service activities incidental to water transportation	2,884	0.09%	976	0.02%
55.24	Cargo handling	27	0.00%	125	0.00%

Table 3: Revenue and employment of the Swiss maritime service providers  
Reference: VAT statistics Swiss Federal Tax Administration & employment statistics from Swiss Federal Statistical Office

### 5.3.4 Construction of Water Projects

The construction of water projects comprises the construction activities associated with water bodies as well as the supporting construction planning activities. This includes the construction of waterways, ports (including marinas), river structures, locks, bank structures as well as dams, dikes and other flood protection structures. Dredging is also included in hydraulic engineering if its purpose is the dredging of waterways for their construction or maintenance. The construction activities mentioned require the planning support of specially trained engineers. Overall, this is a small-scale and heterogeneous, but also well-defined economic sector.

Statistics show this sector as sub-item of other civil engineering in the area of construction under the classification number 42.91. The corresponding figures for revenue and employment were taken from the official VAT and employment statistics.

The sector generated a turnover of CHF 16 million in 2016 with 181 direct employees.

NOGA 2008	Description	Revenue (Mio. CHF)		Employees	
		2016	% of Swiss total	2016	% of Swiss total
42.91	Construction of water projects	16	0.00%	181	0.00%

Table 4: Revenue and employment related to the construction of waterways

Reference: VAT statistics Swiss Federal Tax Administration & employment statistics from Swiss Federal Statistical Office

### 5.3.5 Supply Industry

Behind international shipbuilding there is also a corresponding supply industry, which is of great importance for the shipping sector. The supply industry is anchored in various areas of the manufacturing sector. In addition, there is the overriding work of engineers in the planning, design and construction of components as well as other technical services. It is not possible to make a clear-cut distinction, since in addition to companies or whole parts of companies that produce parts exclusively for shipbuilding, the vast majority of components and assemblies are not manufactured for this segment.

The supply industry is a very heterogeneous cross-sector industry whose companies can be assigned to many economic sectors. NOGA-Code 26 usually includes the manufacture of clocks and watches under 26.52 and is by far the largest sub-sector with almost 50% of revenue and employment in sector 26. In the following table the manufacture of clocks and watches is excluded in order to enable an undistorted overview of the machinery and equipment manufacturers. The following four NOGA-codes represent the sectors that are most important as supply industries for the international shipbuilding segment.

As a quantitative assignment of the total numbers shown in Table 5 to the international shipping and/or shipbuilding segment cannot be made, the relative importance of these segments on the Swiss economy is later made by example of Swiss companies that produce to a large extent or even exclusively for these segments. However, the portal Handelszeitung.ch reported back in January 2007 that Swiss suppliers were already earning

an estimated CHF 2.5 billion in the cruise ship market at that time and employed around 20,000 people. (Chalupny, 2007) Until the Corona crisis hit, the cruise sector was booming and especially between 2016 and 2019 the contracts for new cruise ships steadily rose to a peak of 40 ships in 2019 from 18 in 2017. (Clarksons, 2021)

As Table 5 shows, the companies in the supply industry generated a total turnover of CHF 88.7 billion in 2016. In addition, around 173,500 people were employed in the supply industry.

NOGA 2008	Description	Revenue (Mio. CHF)		Employees	
		2016	of Swiss total	2016	of Swiss total
	Total	88,693	2.74%	173,533	3.39%
26	Manufacture of computer, electronic and optical products	34,331	1.06%	53,361	1.04%
27	Manufacture of electrical equipment	19,099	0.59%	31,533	0.62%
28	Manufacture of machinery and equipment n.e.c.	30,073	0.93%	71,177	1.39%
33	Repair and installation of machinery and equipment	5,191	0.16%	17,463	0.34%

Table 5: Revenue and employment of the Swiss supply industry

Reference: VAT statistics Swiss Federal Tax Administration & employment statistics from Swiss Federal Statistical Office

### **ABB**

ABB is a leading Swedish-Swiss multinational technology corporation headquartered in Zürich operating mainly in the field of robotics, heavy electrical equipment and automation. According to a company presentation the ABB group employs around 110,000 people worldwide, more than 6,000 in Switzerland, and generated around USD 28 billion in 2019 (ABB Group, 2020).

ABB is also global leader for low, medium and high-speed turbochargers for diesel and gas-engines from 500 kW to more than 80 MW, headquartered in Baden, Switzerland This segment generates yearly revenues of USD 750 million to 1.25 billion per year (ABB Group, 2020) and employs around 800 people in Switzerland (Angelika Gruber, 2020). According to ABB the marine sector represents around 50 % of the yearly revenues. (ABB Group, 2020)

A segment exclusively linked to the maritime industry is the ABB's branch *Marine & Ports*, specialized in Azipod propulsion, ship electrification & automation as well as port automation. With yearly revenues of USD 750 million to 1.25 billion, ABB is global market leader in this field.

### **Winterthur Gas & Diesel**

The city of Winterthur in the canton Zurich has a long lasting tradition of building the largest diesel engines for marine use. Founded as Gebrüder Sulzer in the 19<sup>th</sup> century the company was sold to the Finnish manufacturing company Wärtsilä in the late 20<sup>th</sup> century and finally established as a joint venture of the China State Shipbuilding Corporation and Wärtsilä under the name Winterthur Gas & Diesel (WinGD). Today WinGD employs over 400 people worldwide and more than 300 in Winterthur. The company has a global market share of 36 % for marine diesel engines, 91 % in the LNG carrier and 60 % in the dual-fuel market. (WinGD, 2020)

### **Liebherr**

The Liebherr Group is headquartered in Bulle, Switzerland and produces, among other things, cranes for the maritime sector, such as port cranes, offshore cranes, ship cranes or floating transfer solutions. In 2019 the Liebherr Group employed around 48,000 people worldwide (Liebherr, 2020) with a total revenue of almost EUR 12 billion (Miranville, 2020). Liebherr is represented at three locations in Switzerland: in Bulle in the canton of Fribourg, in Nussbaumen in the canton of Aargau and in Reiden in the canton of Lucerne.

Here, the maritime cranes sector participated with a revenue of almost EUR 900 million Euro with almost 4,500 employees worldwide. (Miranville, 2020)

### **Schindler Marine**

The Swiss Schindler Group is known as a manufacturer of elevators and escalators. With its Schindler Marine division, the company is the global market leader of elevators and escalators in the cruise industry. (Schindler North America, 2009) In 2019, Schindler Holding AG generated global revenues of CHF 11.3 billion (Schindler AG, 2021c) and employed a total of 66,306 people (Schindler AG, 2021b), including nearly 5,000 in Switzerland (Schindler AG, 2021a).

In 2019 Schindler Marine e.g. equipped eleven cruise ship new buildings in Italy with elevators and escalators. (Schindler Holding AG, 2019)



### **Burckhardt Compression**

Burckhardt Compression, headquartered in Winterthur, is the global market leader in reciprocating compressor systems and operates in 80 countries. In 2019, the company employed 2,621 people (Burckhardt Compression, 2020) worldwide and generated sales of CHF 629.6 million. (Burckhardt Compression, 2021a)

In the gas transportation and storage sector, the company specializes in compressor solutions for LNG tankers, LNG bunkering vessels, merchant ships, cruise ships, and LNG import and export terminals. (Burckhardt Compression, 2021b)

### **Georg Fischer**

Georg Fischer AG is a Swiss industrial company headquartered in Schaffhausen. The Corporation employed 14,678 people worldwide in 2019 (Georg Fischer AG, 2020c) and generated sales of CHF 3.7 billion. (Georg Fischer AG, 2020d) In Switzerland, 3,397 employees (Georg Fischer AG, 2020a) worked for the company in 2019 and sales of CHF 199 million (Georg Fischer AG, 2020e) were generated.

The Corporation's largest segment in terms of sales and employees is GF Piping Systems limited, which among other things offers plastic systems for all fluid applications on board in the marine sector. With sales of CHF 1.8 billion in 2019 (Georg Fischer AG, 2020f), this division accounted for approximately 48% of total sales and employed approximately 47% of the total Corporation with 6,892 employees (Georg Fischer AG, 2020b).

### **5.3.6 Administrations & Associations**

The sub-sector of administration and associations of the maritime industry comprises state administrative tasks and association work related to the maritime industry. In the transport-related administration of the federal and State governments, there are agencies whose tasks are focused on port and maritime industries. In addition, there are the waterways and shipping offices, whose work ensures shipping traffic on Swiss waterways. The various associations also make an important, overarching contribution to the maritime economy. A direct attribution of their work is only possible with difficulty and is further complicated by the heterogeneous association system and its tasks.

The cantonal shipping offices are responsible for inland navigation issues. The 24 shipping offices are organized in an association called *Vereinigung der Schifffahrtsämter*. According to the association's office the cantonal offices employ over 100 people. The association itself has only one employee for administrative reasons.

The maritime navigation concerns are dealt with by the Swiss Maritime Navigation Office (SMNO) in Basel. Apart from the registration and administration of the Swiss flagged commercial maritime fleet, the SMNO is responsible for the registration of ocean-going yachts and small crafts on foreign inland waterways sailing under Swiss flag. In addition,

the head of the SMNO leads the Swiss delegation to the *Central Commission for Navigation of the Rhine* (CCNR). Further, in addition to the interests of Swiss-domiciled maritime shipping companies, whether with or without ships flying the Swiss flag, the SMNO also represents the interests of the maritime supply industry, the associated raw materials and trade sector, the associated finance and insurance sector, as well as specific NGOs, for example with a focus on research and marine environmental protection, within the framework of international organizations, e.g. in the committees of the IMO. These areas of responsibility of the SMNO are discussed in more detail in the Sections 6 & 7 and are mentioned here only because of their indirect importance for the Swiss economy. The SMNO employs 7 people whereas around two full-time positions are dedicated to the commercial maritime shipping sector. (Roth, 2015) According to the SMNO, the administration also serves as accreditation organization for IMDG-code related certifications. The SMNO is financed by fees that accrue in the areas of pleasure shipping, as well as commercial shipping. As a public administration, the SMNO is required to charge fees that cover its costs, i.e. not to make a profit. According to the SMNO, the majority of the fees were collected in the area of pleasure navigation with approx. CHF 500,000 in 2020, whereas the revenues in the area of commercial shipping were approx. CHF 70,000.

In addition, the interests of companies in the maritime industry are represented by numerous associations that also generate employment in a lower scale and is estimated to around 10 employees. Due to the rather non-material added value of associations, the turnover cannot be recorded.

### **5.3.7 Research & Education**

Research & education directly related to the maritime and coastal space is highly specialized. Here, some of the specialized institutes or institute divisions serve as a point of reference for demarcation. Closely linked to research are correspondingly specialized courses that can be counted as part of the maritime economy. Examples would be courses of study such as marine biology or nautical sciences, but also logistics courses with a maritime focus. The employees working in the corresponding degree programs or chairs support the maritime economy in the broader sense, as they train specialized personnel for the maritime economy. In the context of economic science, consulting companies specializing in maritime issues represent another branch of the sector. Their activities are often linked to research or the connection and transfer of research and practice.

Apart from logistics courses and studies, there are no educational offers specialized in the maritime or coastal space available in Switzerland. It could be found that from time to time Swiss research projects dealt with the maritime sector but that all things considered the Swiss educational and research system has no focus on the maritime or coastal space. The fact that, e.g. training to become a boatman on inland waters can be started in Switzerland, but Switzerland itself does not have the necessary educational facilities, underscores the minor importance of the maritime sector in Swiss education.

## 5.4 Conclusion

1. *What is the importance of the maritime economy within the Swiss economy as a whole?*

It could be shown that the importance of the maritime economy for the Swiss national economy as a whole, especially the seaborne trade of goods, goes way beyond the effects directly generated within Switzerland. The Swiss economy is heavily reliant on the shipping industry, because of their understanding as an export country, but more importantly because of the leading role in international commodities trading.

First of all, companies that directly use the maritime space, i.e. shipping companies offering transportation services, generate direct impacts in form of added value and employment to the Swiss economy. In addition, these company indirectly add other value and employment through maritime structure providers. It was found, that the direct and indirect effects on the Swiss economy that can clearly be allocated to the maritime economy was around 6,000 employees and around CHF 22,2 billion CHF in revenues in 2016, whereas the shipping sector (including inland shipping) forms the major part (see Table 6). It was found that the shipping sector generated almost CHF 2 billion GVA to the Swiss GDP of which more than 70 % are attributable to the sea and coastal freight water transport.

Description	Revenue (Mio. CHF)		Employees	
	2016	of Swiss total	2016	of Swiss total
<b>Total</b>	<b>22,186</b>	<b>0.69%</b>	<b>5,996</b>	<b>0.15%</b>
Shipping (including inland shipping)	18,969	0.59%	3,606	0.09%
Shipbuilding	290	0.01%	1,109	0.03%
Maritime service providers	2,911	0.09%	1,101	0.03%
Construction of water projects	16	0.00%	181	0.00%

*Table 6: Revenue and employment of the Swiss maritime economy*

*Reference: VAT statistics Swiss Federal Tax Administration & employment statistics from Swiss Federal Statistical Office*

In addition, 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. In contrast to the sectors mentioned in Table 6 an accurate quantification and assignment of employment and revenue to the maritime economy by the supply industry, due to its heterogeneous structure, turned out to be difficult. Still, one can say with certainty that several thousand jobs of the machinery and equipment manufacturers are directly dependent on the maritime economy. Of a total of 173,533 employees and revenues of CHF 88.7 billion of the supply industry in 2016, a substantial part can be directly allocated to the maritime economy. It could be shown that some of the largest Swiss companies are commercially active within the maritime economy and whole branches work exclusively for the international shipping and shipbuilding industry.

Finally, transportation services serve as economic multipliers and enable economic opportunities and by that generating catalytic impacts for other sectors within the Swiss

economy. The international merchanting sector has evolved to the second largest trade sector with revenues of CHF 47 billion in 2019 with a direct employment of roughly 19,000 people. The share of the nominal GDP of this sector increased from 0.6 % in 2000 to 6.4 % in 2019. It must be considered that this sector is heavily reliant on functioning and cost effective global transport chains especially by sea and that without international shipping this sector could not exist in its current extent.

Finally, the Swiss economy as a whole is only functioning because of the maritime sector. Even though Swiss trade statistics assign only a small amount of the imported and exported trade volumes to the shipping sector, it could be shown that this is only true because of the place of statistical recording, namely the Swiss border. The importance of the means of transport *ship* is in fact a lot bigger if not only the point of border crossing would be considered.

### 2. *What is the significance of Switzerland's status as a Flag State in this context?*

As it could be shown, the Swiss-flagged fleet does only contribute to a very small extent to the overall fleet in Swiss ownership and/or commercial control. Currently the Swiss-flagged fleet only consists of 18 vessels of mainly two shipping companies, whereas only one of these companies operates their ships exclusively under Swiss flag. The importance of the Swiss flag for the shipping companies is regarded as relatively low, as the majority of Swiss shipowners successfully operate their ships under foreign flags.

An indirect importance for the Swiss economy might be the SMNO's work in international organizations and the importance of the status as Flag State in regard to political and legal considerations that may affect internationally active companies, e.g. trading or supply industry. These legal and political considerations are further discussed in Sections 6 & 7. Besides the work in international organizations the SMNO, in its position as Flag State, carries out accreditations for IMDG-code related certifications as a sovereign task. However, in the event of a loss of Flag State status, this task could be performed by another organization, such as the Swiss Accreditation Service SAS. In fact, the *Regulation on the Swiss Accreditation System and the Designation of Testing, Conformity Assessment, Registration and Approval Bodies* names in Article 5 the Swiss Accreditation Service SAS as the only approved accreditation body in Switzerland. ISL's research has also shown that companies that carry out inspections e.g. in the area of the IMDG-Code, are regularly already certified by SAS for these activities. (Schweizerische Akkreditierungsstelle, 2017, 2019)

While for developing countries with a smaller national economy the revenues from a ship registry play a weighty role, in developed economies this is normally no reason to maintain the status of a Flag State. This is also true for Switzerland, for which the fee income of the SMNO of about CHF 570,000, CHF 500,000 of which are accounted for by the recreational shipping sector, cannot be a reason for maintaining a Flag State administration.

Whereas for traditional maritime nations with direct access to the sea, the preservation of maritime know-how, and thus a strong fleet under national flag for the training of young seafarers, is of utmost importance for maintaining competitiveness and smooth

import and export of goods by seagoing vessels, this necessity does not arise for a landlocked country like Switzerland.

Furthermore, the comments of various stakeholders in the Swiss maritime industry particularly highlight the importance of introducing a tonnage tax to strengthen the competitiveness of the maritime industry, while strengthening the Swiss flag seems to be of secondary importance. For example, the Swiss Shipowners Association as well as the STSA were actively promoting a tonnage tax that should not be linked to the Swiss flag alone, but also allow flags of the EU, EFTA or other trading partners. The current consultation procedure shows that the government intends to adopt the regulations on the ship's flag demanded by the aforementioned associations with regard to the tonnage tax. Accordingly, a shipping company or charter company domiciled in Switzerland is to be allowed to opt for tonnage taxation, provided that at least 60 % of the tonnage is operated under the Swiss flag or the flag of an EEA member state. (Eidgenössisches Finanzdepartement EFD, 2021) Thus, Swiss domiciled shipping or charter companies could benefit from a tonnage tax regime, even without operating any of their ships under Swiss flag. This shows that the Swiss flag is not regarded to be of significant importance for the Swiss maritime industry. (Swiss Shipowners Association, 2020; Swiss Trading & Shipping Association (STSA), 2021)

Closely related to the international commodities business are activities in the field of deep-sea mining, which could possibly become important for an industrialized country like Switzerland in the long term. There could be long-term economic opportunities here as demand for raw materials increases, particularly for high-tech applications and the electrification of mobility. (Shukman, 2019) Currently, this area is still primarily of interest at the international political level and is therefore highlighted in Sections 6 and 7.

3. *What is the importance of a Swiss fleet or ships flying the Swiss flag? And in this context:*
  - a. *Importance of commercial shipping*

The sea and coastal shipping sector, i.e. passenger and freight water transportation, generated a total of almost CHF 18 billion in revenues and an employment of over 1,500 people in 2016.

As outlined in Section 3 the Swiss owned commercial fleet consisted of 416 vessels in October 2020 with a total capacity of around 27 million dwt, whereas ships from MSC accounted for nearly 60 % in terms of numbers and around two-thirds in terms of capacity. In addition, over 300 charter vessels with another 26 million dwt were operated by MSC alone. Summing up, in October 2020 the fleet in Swiss ownership and/or operation is estimated to be more than 800 ships with a capacity of over 50 million dwt. In comparison to a total world fleet of 2.1 billion dwt (Clarksons, 2021) around 2.4 % of the world fleet are owned and/or operated by Swiss companies.

The Swiss-flagged fleet accounts for only a fraction of the total Swiss-owned fleet. As of October 2020 only 20 ships were flying the Swiss flag, whereas the Swiss owned fleet excluding MSC consisted of an overall of 172, meaning, that Swiss flagged Ships only accounted for around 12 % of the total owned fleet excl. MSC in terms of numbers with

a share of 12 % in terms of capacity in dwt. Including the ships owned by MSC the share of the Swiss flag is only 5 % in terms of numbers and 3 % in terms of capacity (dwt). By the end of 2020 the Swiss-flagged fleet shrank by another two ships to a mere 18.

Even though, the benefit of an ocean-going fleet for the economic national supply of Switzerland with vital goods in the event of a crisis has hardly been disputed since the Second World War for reasons of security and supply policy, this importance is strongly put into perspective by the report on the supply-policy significance of ocean-going shipping adopted by the Federal Council on December 21, 2016. (Leuthard and Thurnherr, 2017) According to this report, in today's environment, it hardly adds any decisive value to the supply of vital goods to Switzerland. (Eidgenössisches Department für Wirtschaft, 2016) Access to deep-sea vessels to secure the country's supply is only one mosaic piece in the supply chain. Other infrastructures, such as ports and access routes, are considered to be much more at risk. (Leuthard and Thurnherr, 2017)

In addition, it could be found that, even though the Swiss-owned and especially the fleet operated by Swiss companies demonstrate a significant share of the world merchant fleet, Switzerland seems not to be the country of choice in terms of ship management, e.g. technical management, registration and crewing activities. At the end of 2020 an overall of 148 ships were managed from within the Swiss confederation with 83 of these ships in Swiss ownership. Within the peer group of the Swiss owners excl. MSC it was found that only 76 were managed<sup>18</sup> from within the Swiss Confederation, 29 ships in the ownership of Swiss companies were managed abroad, and 67 ships were in ownership of Swiss based multi-national trading companies with the management located abroad for all 67. In case of MSC it could be found that only seven ships are currently managed from within Switzerland but that the vast majority is managed from Cyprus and Italy. (Clarksons, 2021) Thus, 65 ships that are not in Swiss ownership are additionally managed by Swiss ship management companies.

In summary, it can be said that the Swiss commercial shipping contributes a not inconsiderable share to the value added and employment in the Swiss economy, although the share of ships under the Swiss flag only makes up a small part. Due to the relatively small number of Swiss ship management firms and ships managed from Switzerland, it is assumed that the majority of the value added and employment is generated in the area of ship operations, rather than in ship management.

### *b. Importance of sports and pleasure shipping*

The pleasure boating sector accounts for by far the greater part of SMNO's fee income and is of corresponding importance in this area. Some Swiss boat building companies are specialized in building ocean-going yachts and thus sport and pleasure shipping does have an indirect impact on the Swiss economy. Apart from that, even though the number of yachts and small crafts in the Swiss register is considerable, these boats, except when built in Switzerland or maintained by Swiss companies, in general do not directly

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<sup>18</sup> The management of a ship in this context means, among other, e.g. the technical management, registration, or crewing.

contribute to the Swiss national economy in terms of value added and employment. This is also due to the fact, that yachts registered in Switzerland may not be operated commercially. (Schweizerische Eidgenossenschaft, 1971)

### *c. Other types of shipping*

Apart from merchant ships and sports & pleasure crafts the Swiss register has various research or special ships listed as well. Beginning of 2021 about 25 – 30 ships with such special features were registered in the Swiss register. These special ships can have a humanitarian, philanthropic, cultural or scientific mission. Because of their non-commercial character and the rather small number, even though employment and value added might be generated in this sector, the economic importance for Switzerland is negligible.

It could be shown that inland shipping, especially the sector of inland waterway passenger transport is an important employer in Switzerland. Still, the contribution to the Swiss economy in terms of value added for the inland shipping sector including the carriage of goods is less than one third of the overall ocean shipping sector. Due to the non-visibility of ocean-going vessels in Switzerland, this fact will probably receive little, if any, attention in the public perception.

## 6 Legal Relevance

This section will be the basis for the assessment of the four future scenarios with respect to the importance of the Flag State status and the Swiss fleet at sea in the legislative processes and in the adoption and implementation of international law at the international and national level. Specifically, the following questions will be addressed in this Section:

*(a) What difference does it make for Switzerland in terms of international maritime and international law, whether Switzerland has a flag or not -*

*(i) when participating in the legislative process?*

*(ii) in adopting and implementing international law?*

*(b) How does this affect in particular the economy, the environment and science?*

*(c) What is the significance of Flag State status to a Swiss fleet or ships under the Swiss flag?*

*(d) What significance does the Flag State status have for the maritime sector of the Swiss economy and the Swiss economy in general?*

In order to put these questions into context, Switzerland's Flag State administrative structure will first be presented. Second, Switzerland's membership in ocean-related treaties and international bodies will be established. Third, the international legislative process pertaining to shipping will be explained. Fourth, the process of adoption and implementation of international law, in particular with respect international shipping law will be explained.

### 6.1 Switzerland's Flag State Administration

Under Swiss law, Switzerland's Flag State Administration is allocated to two offices. The registration of the seagoing vessels is handled by the Swiss Maritime Register Office which is under the administration of the land survey and registry office Basel-Stadt. The implementation of duties of a Flag State under national international laws and regulations, on the other hand, is undertaken by the Swiss Maritime Navigation Office (SMNO). The SMNO is under the direct supervision of the Federal Department of Foreign Affairs (FDFA) (Art. 8 (Swiss) Maritime Navigation Act). This is because from the Swiss perspective, maritime navigation and maritime concerns are considered part of international law.<sup>19</sup>

As landlocked Flag State administration, in addition to the SMNO officials and employees, Swiss embassies and consulates abroad administer the Flag State duties with respect to the seagoing vessels flying the Swiss flag (Art. 9 (Swiss) Maritime Navigation Act). In the event that there is a consulate at the port where a Swiss-flagged vessel is entering,

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<sup>19</sup> Federal Department of Foreign Affairs, <https://www.eda.admin.ch/eda/en/fdfa/fdfa/organisation-fdfa/directorates-divisions/directorate-international-law/smno.html>



the Master has an obligation to advise the consulate of its arrival and departure time and to have all documents ready in case the consulate conducts an inspection (Art. 59 (Swiss) Maritime Navigation Regulations).

The SMNO's remit is comprehensive with respect to implementation of international maritime safety laws and prevention of ship pollution. It is tasked to implement international and national regulations relating to maritime safety, pollution control and prevention, and to ensuring that vessels flying its flag comply with such rules and regulations. The scope of SMNO's tasks is provided in the (Swiss) Maritime Navigation Act and (Swiss) Maritime Navigation Regulations.

As it is a part of the FDFA, the SMNO also undertakes diplomatic duties. It is tasked to represent Switzerland in relevant international bodies, and to prepare Switzerland's ratification and accession procedures for international maritime conventions.<sup>20</sup> In addition to enforcing applicable IMO and ILO conventions, the SMNO also "participates in the enforcement of other countries' technical and trade-policy rules and regulations in maritime shipping."<sup>21</sup> Finally, as part of its Flag state obligations, SMNO provides diplomatic protection to its vessels vis-a-vis foreign authorities.<sup>22</sup>

It is not only merchant seagoing vessels that are under the jurisdiction of the SMNO. SMNO also has competence with respect to ocean-going yachts and small boats. It is also obliged to maintain the register of all Swiss ocean-going yachts and small boats. From the perspective of the law of the sea, all seagoing vessels regardless of purpose (commercial or non-commercial) are under the jurisdiction of the State of registry. However, some of the standards of maritime safety and labour rules applicable to non-merchant vessels will differ, as they are not regulated under IMO or ILO conventions.

## 6.2 Switzerland's Membership in Ocean-Related Conventions and Organizations

The importance of Switzerland's Flag State status and its fleet at sea can be assessed within the context of its membership in treaties and international bodies.

Switzerland is a member of the United Nations since 2002. Its membership in the UN is relevant for ocean-related matters. The UN has a global mandate and its wide-ranging organizational structure is composed of a General Assembly, permanent councils including the Security Council, and committees. This broad organizational structure is complemented by specialized agencies such as the IMO, the ILO and other bodies and offices. The UN is therefore best placed to coordinate organizations and activities with overlapping and overarching agendas on the oceans. (Oude Elferink, 2004)

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<sup>20</sup> Swiss Maritime Navigation Office, <https://www.eda.admin.ch/smno/en/home/handelsschiffe.html>

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

Switzerland is a member of all ocean-related organizations or bodies. This includes membership of the UNCLOS, considered the Constitution of the oceans. UNCLOS sets the legal and regulatory framework establishing jurisdictional powers in different maritime zones, defines the substantive regimes governing the rights and uses of these maritime zones and outlines the regime to protect and preserve the marine environment.

UNCLOS did not establish a central organization, however. Some of the administrative and political processes within the UNCLOS legal framework take place within the UNCLOS Meeting of States Parties. The Meeting of States Parties is not a formal treaty body equivalent to an assembly. UNCLOS has assigned to it very specific roles, namely 1) to elect 1/3 of the 21 judges of ITLOS every three years, 2) to elect all 21 members of the Commission on the Limits of the Continental Shelf every 5 years, 3) to consider administrative and budgetary matters of the ITLOS every year and 4) to receive the annual law of the sea report of the UN Secretary-General, the annual statement of the Chair of the CLCS and the annual report of the ITLOS.

The UNCLOS established three bodies, none of which are directly involved with the regulation of shipping matters. These are the International Tribunal for the Law of the Sea (ITLOS), the Commission on the Limits of the Continental Shelf (CLCS) and the International Seabed Authority (ISA).

The ITLOS is a permanent court of 21 judges to settle disputes arising out of UNCLOS. Although it plays a role in developing the law of the sea by way of its jurisprudence, it does not have a political role in legislative processes (Tuerk, 2015). Switzerland does not have a judge at ITLOS but has appointed a judge *ad hoc* in the case relating to M/T San Padre Pio, a case which is currently pending before the ITLOS.

The CLCS is a body of 21 experts in hydrography, geology and physics. It is mandated to assess and give recommendations to the submission of coastal States concerning the areas of their continental shelves beyond 200 nautical miles and does not perform any legislative role (Suarez, 2008). Switzerland, as a landlocked State, is not entitled to establish any maritime zone, including the continental shelf. The CLCS does not have any member from Switzerland.

The ISA is mandated to adopt and enforce rules and regulations relating to the exploration and exploitation activities in the international seabed area (Harrison, 2010). It has a full panoply of organs, including an Assembly, a Council and committees and as such is empowered to undertake legislative work relating to the international seabed area. As a Member State to the UNCLOS, Switzerland participates in the work of the ISA.

For the governance of shipping matters, several UNCLOS provisions refer to international organizations competent on matters relating to international shipping and the prevention of pollution from ships. It is accepted that when UNCLOS uses "competent international organization" in the singular in reference to shipping matters, it means the IMO, the UN's specialized agency responsible to take measures on maritime safety, maritime security and the prevention of pollution from ships (IMO, 2014). For labour conditions relating to seafarers, the ILO is the competent international organization.

As mentioned in Section 3.1, Switzerland is a member of the Convention establishing the International Maritime Organization (IMO) since 1955. Further, Switzerland is a member of 34 other maritime law conventions adopted under the auspices of and managed by the IMO. Switzerland is also a member of the ILO and has ratified the MLC, which is a consolidation of previous 37 ILO conventions and recommendations.

Finally, it is noted that Switzerland is a member of the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention'). The main organ of the OSPAR Convention is the OSPAR Commission which is composed of representatives of all Member States.

It is important to underscore that UNCLOS is a framework convention, which means that almost all of its provisions and the obligations of Member States therein were formulated in a general manner. The specifics of UNCLOS provisions are to be found in other agreements and in national laws implementing UNCLOS. Thus, the application and implementation of UNCLOS obligations are to be undertaken within the context of relevant conventions. The distribution of jurisdictional powers among Coastal, Flag, and Port States established in UNCLOS is observed in these instruments (Beckman, Robert and Sun, 2017).

### **6.3 The International Legislative Process Pertaining to Shipping and Ocean Matters**

The international legislative process pertaining to shipping and ocean matters takes place within the IMO, the UN General Assembly, at the ILO for labour conditions concerning seafarers and in bodies established by UNCLOS. By international legislative process, we mean the "political process of rule-making and standard setting (which) consists of a number of decisions often scattered over various organs of the international organization" (von Bernstorff, 2008).

Rule-making and standard-setting in international organizations can be distinguished in two types. The first type is when an international organization initiates a diplomatic conference with the aim of negotiating and adopting a new treaty, or a protocol to an existing treaty, or agreements to implement existing treaties (von Bernstorff, 2008). The UN General Assembly has initiated a wide range of such negotiations and adoptions of several multilateral treaties, including the UNCLOS. The IMO and the ILO also have organized diplomatic conferences to negotiate and adopt treaties.

The second type of international law-making is part of the regular work of international organizations, established by multilateral treaties. Such international organizations with their permanent standing secretariats and organizational structures have made it possible for international law-making to become a routine activity. This enables their Member States on a regular basis to review existing laws to determine if they are still fit for purpose, and to propose amendments to existing laws if required (Desai, 2018). The IMO and the ILO are examples of this type of rule-making and standard-setting.

Sovereign States are the main actors in diplomatic conferences as well as in regular rule-making within organizations. This means that States initiate the proposals, prepare the

drafts, and possess the right to vote on any proposal, working draft and the final text (von Bernstorff, 2008). Non-state actors such as the secretariat of the international organization, NGOs, expert bodies and international associations also participate. However they do not have the right to vote. An exception on the general rule that only sovereign States possess the right to vote is the practice of the ILO as will be underscored below.

As a rule, a sovereign State does not need to be a member of an intergovernmental organization to be invited to participate in the negotiation and adoption of a new treaty or a protocol to an existing treaty. When Switzerland participated in the negotiation of what is now the UNCLOS, it did so as an Observer State and not a full member of the UN.

The adoption of rules and standards is governed by the rules of procedures of the organization or by the rules of procedures specific to a diplomatic conference (von Bernstorff, 2008). According to the UN General Assembly Rules of Procedure, each Member State has one vote (Rule 82). Decisions on important questions are arrived at by two-thirds of Member States present and voting and on other issues, a simple majority will be sufficient (Rules 83 and 84). Formal voting at all IMO bodies - the IMO Assembly, the IMO Council and all committees - is also governed by the principle of one State one vote (Art. 57 IMO Convention).

The organizational structure of the ILO is unique and different from other international organizations. While its members are also sovereign States, rule-making and decision making at the ILO is not limited to States. ILO has a tripartite system. The ILO's plenary body, the International Labour Conference is open to a national delegation consisting of 4 representatives: 2 from the government, 1 from workers and 1 from employers. These 4 representatives are entitled to vote individually. (ILO Constitution). The executive body of the ILO, called the Governing Body, also has a tripartite membership: 28 Governments, 14 Employers and 14 Workers and 66 deputy members also representing governments, employers and workers. Each members also has one vote. (ILO Constitution)

### **6.4 Adoption and Implementation of International Law at the International and National Level**

States are under a duty to implement provisions of conventions they ratify or accede to. Implementation of international law includes adopting national legislation to implement international law and enforcing these laws in cases of violations. UNCLOS contains obligations that are addressed to States in general and in particular, to categories of States such as Flag States, Coastal States and Port States. Switzerland is a landlocked State. Therefore, obligations addressed and powers allocated to coastal states and to States acting as Port States under UNCLOS do not directly apply to Switzerland. However, they remain relevant because coastal States and Port States are empowered to exercise jurisdiction and control over vessels flying the flag of Switzerland.

As explained in Section 2.1, the Flag State is under a duty to adopt and enforce laws to ensure that vessels flying its flag are seaworthy. Such laws, inter alia, relate to the construction, equipment and seaworthiness of ships; the manning of ships, labour conditions and the training of crews, the use of signals and the maintenance of communications

and prevention of collisions (Art. 94 UNCLOS). Further, Flag States are under a duty to adopt and implement laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag (Arts. 211, 216 and 217 UNCLOS).

These laws must be in accordance with provisions of IMO and ILO instruments that Switzerland ratified or acceded. Switzerland is under a duty to adopt and implement the applicable provisions of UNCLOS, the 34 IMO conventions and the MLC. Switzerland's main implementing legislation respecting the maritime navigation and working conditions of seafarers are contained in the (Swiss) Maritime Navigation Act and (Swiss) Maritime Navigation Regulations.

Further, if a Flag State receives information or reports about any violation committed by a vessel flying its flag from other States, the Flag State is under a duty to investigate the matter and initiate proceedings (Art. 94.6 UNCLOS).

In IMO and ILO instruments, the obligations are primarily addressed to the Flag State, with Port State control playing a complementary role. Key duties of Flag States include the undertaking of periodic surveys and inspections of vessels flying their flags to ensure that they are compliant with regulations for maritime safety, security, for the protection of the marine environment and for seafarers' working conditions (Zwinge, 2012). Following surveys, Flag States are under a duty to issue certificates to confirm the vessel's compliance with the various international laws (Zwinge, 2012).

Switzerland may have obligations other than as a Flag State in IMO instruments and in the MLC. For instance, obligations with respect to the implementation of the IMDG Code under SOLAS are addressed to contracting States. Under the MLC, contracting States shall effectively exercise its jurisdiction and control over seafarer recruitment and placement services operating in their territories.

## 6.5 Conclusions

*(a) What difference does it make for Switzerland in terms of international maritime and international law, whether Switzerland has a flag or not -*

*(i) when participating in the legislative process?*

This Section has shown that as a Member State of the IMO and the ILO, Switzerland has the right to participate in its entire legislative process. This is not linked to the status of being a Flag State. Proposals and drafting of legislation at the IMO normally take place in committees, in particular the Maritime Safety Committee, the Marine Environment Protection Committee and the Legal Committee. Member States can propose new legislation or amendments to legislation, regardless of whether they are Flag States or not. When decisions are taken at the committees by voting, each Member shall have one vote. (Art. 57, IMO Convention) As a general rule, however, the IMO bodies strive to arrive at a consensus rather than vote.

At the ILO, Switzerland also participates as a Member. However, its status as a Flag State is not of direct relevance in most ILO conventions except in the MLC and other conventions relating to the working conditions of seafarers.

With respect to the UNCLOS, Switzerland as a Member State has a right to participate in the amendment process of the UNCLOS (Art. 314 UNCLOS). This right is, again, not dependent on its status as a Flag State.

Switzerland's membership in the UNCLOS also allows it to participate in the legislative work of the ISA. The ISA Assembly, which is the supreme organ of the ISA, is open to all Member States of UNCLOS (Art. 159 UNCLOS). Its mandate, among others, is to adopt the recommendations of regulations relating to deep sea mining activities recommended by the ISA Council and its committees (Art. 159 UNCLOS). Participation in the work of the ISA and in deep-sea mining in international seabed area will be of interest to Switzerland since, among others, it is a manufacturing country supplying heavy industries in general.

As for the diplomatic conferences organized by the UN General Assembly, such process is open to all sovereign States. A binding agreement on marine biodiversity in areas beyond national jurisdiction is currently being negotiated at the UN General Assembly. Switzerland has been participating in its negotiations, exercising its right as a sovereign State and member State of the United Nations.

Finally, with respect to OSPAR, Switzerland's status as a Flag State or the state of its fleet at sea will also not play a critical role in its participation in its legislative work. Switzerland is a member of OSPAR because it is a riparian State of the River Rhine, which is tributary river of the North Sea and thereby part of the geographical coverage of OSPAR. Switzerland's Flag State status will not be of direct relevance to its continuing participation in the legislative work of OSPAR.

In conclusion, Switzerland's status as member of UN, UNCLOS, IMO, ILO and OSPAR gives it full rights to participate in the legislative processes of these conventions and in the organizations established by these conventions. Any change in Switzerland's status as a flag State would not affect its right to participate in international law-making processes on shipping and ocean-related matters.

*(a) What difference does it make for Switzerland in terms of international maritime and international law, whether Switzerland has a flag or not -*

*(ii) In adopting and implementing international law?*

In the international legal and regulatory framework governing international shipping, primacy, Flag States have primary responsibility over vessels flying its flag. Obligations under international rules and regulations of maritime safety and the protection and preservation of the marine environment from vessel-sourced pollution and working conditions of seafarers are addressed primarily to Flag States. Switzerland's status as a Flag therefore makes it a primary actor in the implementation of maritime laws.

Switzerland's Flag State status means that it has primary responsibility to exercise jurisdiction over vessels flying its flag. It has to ensure that its vessels comply with international rules, regulations and standards relating to maritime safety, the protection of the marine environment from ship pollution and working condition of seafarers. If Switzerland were to completely abandon its Flag State status, meaning, it will close down its Ship Registry but remains a member of the IMO, the ILO and their conventions, Switzerland would not be obliged to continue complying with the obligations of a Flag State. It will continue to be under a duty to adopt and comply with other duties addressed to all contracting States.

For example, obligations with respect to the implementation of the IMDG Code under SOLAS will most likely continue to be binding (IMO, 2020). These obligations may include classifying dangerous goods, approval of packaging of dangerous goods and establishing quality assurance programs. With respect to the MLC, contracting States shall exercise jurisdiction over seafarer recruitment and placement services in their territories. However, Switzerland will undertake these obligations not as a Flag State but as a contracting State.

To summarise, the bulk of the responsibility to implement and enforce maritime law and international labour law for seafarers lies on the Flag State. This is because the Flag State is the legal mechanism by which ships or vessels are allowed to navigate the seas and undertake activities. As a Flag State, Switzerland has the primary responsibility to implement binding international maritime law and seafarer labour law.

If Switzerland abandons its status as a Flag State, meaning, if it decides not to maintain a ship registry in accordance with art. 94 of UNCLOS, then it will also cease to have obligations as a flag State under UNCLOS, under IMO instruments and under the MLC. However, obligations other than those of the Flag State which are addressed to all member States of these conventions remain valid for Switzerland.

*(b) How does the Flag State status affect in particular the economy, the environment and Science?*

Switzerland's Flag State status, especially with respect to the merchant vessels flying its flag, does not have a direct relevance for the maritime economy of Switzerland. With currently only 18 merchant vessels, 1,600 ocean-going yachts and 350 coastal boats in its Ship Registry the revenues earned from the administrative fees charged by the SMNO is marginal. As discussed in Section 5, Switzerland's Flag State status does not appear to make any significant contribution to the Swiss economy.

With respect to the protection of the marine environment, a Flag State status means that that State has duties as a Flag State to ensure that vessels flying its flag comply with rules and regulations to prevent and reduce pollution from ships. However, even if a Flag State status is abandoned, Switzerland as a member State of UNCLOS, would still have a general obligation to protect and preserve the marine environment. (Art. 192 UNCLOS).

Marine scientific research on the high seas is a high seas freedom. (Art. 87 UNCLOS). The Flag State status of Switzerland provides Switzerland's research vessels with a legal mechanism to conduct marine scientific research on the high seas. Nevertheless, if marine scientific research is undertaken under the auspices of an international organization, Switzerland's status as a Flag State would not be of direct relevance if research is undertaken aboard other research vessels.

*(c) What is the significance of Flag State status to a Swiss fleet or ships under the Swiss flag?*

From the perspective of the law of the Flag State, the terms Swiss fleet at sea and ships under Swiss flag refer to vessels registered in the Swiss Ship Registry include the 18 merchant vessels registered in the Swiss Ship Register, plus approximately 1,600 Swiss ocean-going yachts, about 350 coastal boats, and some vessels for special purposes. As far as the law of the sea is concerned, Switzerland is the Flag State of these vessels and has the corresponding duties with respect to the administrative, technical and social matters towards these vessels under Art. 94 of UNCLOS. Switzerland has exclusive jurisdiction over these vessels on the high seas (Art. 92 UNCLOS).

As a Flag State, Switzerland has to extend diplomatic protection to its vessels that are subjected to the jurisdiction of other States. As discussed in Section 3.1, Coastal States and Port States can exercise enforcement and in some cases, judicial jurisdiction over vessels flying the flag of Switzerland

Under Art. 218, Port States can exercise enforcement measures when foreign-flagged vessels are voluntarily at their ports. Art. 218 of UNCLOS does not differentiate between merchant vessels and other type of ocean-going vessels such as yachts or coastal boats. Hence, one cannot rule out that a Port State undertakes control measures with respect to Switzerland's ocean-going yachts and coastal boats. Port State control under IMO conventions, under the MLC and under MoUs are addressed mainly to merchant seagoing vessels.



Coastal States may also exercise their jurisdiction over foreign-flagged vessels for violations of coastal State laws applicable in the territorial sea and on the exclusive economic zone when these vessels are navigating in their territorial seas and exclusive economic zones. The exercise by Coastal States and Port States of their enforcement jurisdiction triggers Switzerland's Flag State's duty to provide diplomatic protection to the vessel vis-à-vis the foreign authorities. Switzerland is currently providing diplomatic protection to M/T San Padre Pio in a pending case against Nigeria at the ITLOS.

*(d) What significance does the Flag status have for the maritime sector of the Swiss economy and the Swiss economy in general?*

Switzerland's Flag State status, especially with respect to the merchant vessels flying its flag, does not have a direct legal relevance for the maritime economy of Switzerland. With currently only 18 merchant vessels registered, the revenues earned from the administrative fees charged by the SMNO is marginal. As shown in Section 5, being a land-locked State, the maritime economy of Switzerland is not based on providing direct maritime transport services. Indeed, Section 5 of this study confirms that Switzerland's economy is built on the backs of the international shipping industry and seaborne trade. Switzerland's machinery and equipment manufacturers serve as supply industry to the international shipbuilding and ship maintenance sectors. Switzerland has also taken advantage of the economic opportunities generated by the maritime transport service sector, especially in the international merchanting sector, currently the second largest trade sector in Switzerland with revenues of 47 billion CHF in 2019 with a direct employment of roughly 19,000 people.

## 7 Political Relevance

This section will consider the relevance of Switzerland's status as a Flag State and its fleet at sea at the political level, both internationally and nationally.

The following questions will be considered:

*What is the significance of Switzerland's status as a flag state at the political level?*

*Specifically*

*(a) What are the political advantages and disadvantages? For example:*

*(i) Presence in international bodies?*

*(ii) Representation of political interests (e.g. protection of the marine environment, free sea routes and free maritime trade, etc.) / possibilities of influence?*

*(iii) Linking with other bodies, e.g. via vote swaps?*

*(b) What political issues and interests are involved in the status as a flag state, or are linked or dependent on it?*

*(c) What is the role and/or importance of a Flag State status to the commercial shipping sector?*

*(d) What is the role/importance of a Flag State status importance to the area of leisure and pleasure boating (and in other types of activities, e.g. marine scientific research, shipping in support of offshore economic activities such as deep-sea mining and offshore renewable energy?)*

This section will outline Switzerland's membership in international bodies as this will be the basis for assessing the importance of its status as a Flag State. The focus will be on the governance structures of the UN, the UNCLOS, the IMO and the ILO. A brief review of Swiss interests at the international political level will be also undertaken by looking at Switzerland's focus areas of its foreign policy in order to assess whether these are represented in international bodies where Switzerland is active in.

### 7.1 Switzerland's Membership in International Bodies

Switzerland is a member of the United Nations since 2002. Its membership in the UN is relevant for ocean-related matters. Switzerland is a member of all main ocean-related conventions. It is a member of the UNCLOS and participates in its Meetings of States Parties and in the work of the ISA. Switzerland has ratified the IMO Convention and 34 conventions under the auspices of the IMO including SOLAS, and MARPOL. It participates in the work of the IMO. Switzerland is also a member of the OSPAR Commission. It is also a member of the ILO and active in the work of this organization relating to working conditions of seafarers.

### 7.1.1 Overview of the UN Governance Structure

It is beyond the scope of this assessment to consider the governance structure of the UN in detail. Nevertheless, to provide context for the subsequent discussion, it is important to outline the central elements of the UN governance structure. The UN has six organs. These are the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the Secretariat and the International Court of Justice. For the purpose of this study, the General Assembly and the Security Council will be mentioned but only briefly.

The General Assembly is the UN's plenary organ composed of all member States. Each Member State has one vote. (Rule 82 Rules of Procedure UN General Assembly) Though not expressly mentioned in the Rules of Procedure, the General Assembly often aims to arrive at a consensus, instead of taking a vote. The Special Committee on the Rationalization of the Procedures and Organization of the General Assembly concluded that that "the adoption of decisions and resolutions by consensus is desirable when it contributes to the effective and lasting settlement of differences, thus strengthening the authority of the United Nations." (United Nations General Assembly, 2017)

The General Assembly plays a significant role in ocean governance. As outlined in more detail in section 6, the UNCLOS did not establish a plenary deliberative body. The General Assembly has taken on this role since 1984. Further, since 1994 it undertakes an annual review of the implementation of the UNCLOS. The basis of the discussions on the law of the sea at the General Assembly is the annual report of the Secretary-General on the law of the sea.

In 2000, the General Assembly established an open-ended informal consultative process aimed to facilitate the discussion of the Secretary-General's annual report on developments in the law of the sea, with focus on sustainable development elements and aspects related to international coordinate and cooperation. (United Nations General Assembly, 2000) This open-ended informal consultative process has a broader membership than the General Assembly. It is open to all States Members of the United Nations, States members of the specialized agencies, all parties to the Convention, entities that have received a standing invitation to participate as observers in the work of the General Assembly pursuant to its relevant resolutions, and intergovernmental organizations with competence in ocean affairs. The Rules of Procedures of the General Assembly apply to the open-ended consultative process.

As a Member of the UN and member of UNCLOS, Switzerland has the right to participate in the deliberations of the General Assembly and of the open-ended informal consultative process. A Flag State status is not relevant in this context.

The UN Security Council is mandated to ensure that international peace and order is maintained. (Art. 24 UN Charter) This is the only UN organ empowered to issue binding resolutions on its Member States. There are 15 seats at the Security Council consisting of 5 permanent Member States consisting of China, France, the UK, Russia, and the United States and 10 non-permanent seats. (Art. 23.1 UN Charter) The term of office for the 10 non-permanent seats is two years. (Art. 23.2 UN Charter) Each Member has one vote but

in addition to their votes, the 5 permanent Members have vetoes. (Art. 25.3 UN Charter) The UN Security Council is mentioned in this study because Switzerland is campaigning to be elected to a non-permanent seat at the Security Council in 2023. The issue of whether Switzerland's status as a Flag State would have any positive implications for vote-swapping will be dealt with below.

### **7.1.2 Overview of Governance Structures of UNCLOS Bodies**

UNCLOS did not establish a central organization. Some of the administrative and political processes that take place within the UNCLOS legal framework take place within the UNCLOS Meeting of States Parties. As mentioned in section 6, UNCLOS assigned very specific roles to its Meeting of States Parties. These are 1) to elect 1/3 of the 21 judges of ITLOS every three years, 2) to elect all 21 members of the Commission on the Limits of the Continental Shelf every 5 years, 3) to consider administrative and budgetary matters of the ITLOS every year and 4) to receive the annual law of the sea report of the UN Secretary-General, the annual statement of the Chair of the CLCS, and the annual report of the ITLOS. The Meeting of States Parties is open to all Member States. Each Member State has one vote. The Flag State status is not relevant in determining voting rights at the Meeting of State Parties.

UNCLOS established three bodies, including the ISA. The ISA is mandated to adopt and enforce rules and regulations relating to the exploration and exploitation activities in the international seabed area. (Harrison, 2010) It has a full panoply of organs, including an Assembly, a Council and committees. The ISA Assembly, which is the supreme organ of the ISA, is open to all Member States of UNCLOS (Art. 159 UNCLOS). Each Member State has one vote. Membership in the ISA Council and its committees are by election. Switzerland is not a member of the ISA Council nor of its committees.

### **7.1.3 Overview of IMO Governance Structure**

The IMO is a specialized agency of the United Nations and the recognized competent international organization on shipping matters. It is open to all States with interests in shipping. This means that it is not only Flag States or ship-owning nations that are represented at the IMO. The categories of Member States at the IMO may be gleaned from the categories of States members represented at the IMO Council. The IMO Council, which is the executive organ of the IMO has 40 Member States: These are a) 10 States with the largest interest in providing international shipping services; b) 10 States with the largest interest in international seaborne trade; and c) 20 States not elected under (a) or (b) above, which have special interests in maritime transport or navigation and whose election to the Council will ensure the representation of all major geographic areas of the world. The term of IMO Council members is two years, its election coincides with IMO General Assembly's regular session.

The IMO governance structure consists of the IMO Assembly, the IMO Council, and the following committees: the Maritime Safety Committee, the Marine Environmental Protection Committee, the Legal Committee, the Technical Cooperation Committee and the

Facilitation Committee. These committees in turn have sub-committees supporting their work. The IMO has a standing international secretariat made up of international civil servants.

The IMO Assembly is the highest governing body and consists of all Member States. (Art. 12 IMO Convention). It is competent to deal with all matters within the mandate of the IMO, including adopting the budget of the IMO, adopting regulations and guidelines on maritime safety and vessel-sourced pollution, and taking decisions to convene diplomatic conferences to adopt new conventions or amendments of existing conventions. (Art. 15 IMO Convention) It is also the body which elects the members of the IMO Council. (Art. 15 IMO Convention) The Assembly holds regular sessions every two years or extraordinary sessions when deemed necessary by one-third of Members or by the IMO Council upon notice. (Art. 13 IMO Convention)

The IMO Council's mandate is broad and comprehensive. It is empowered to perform all functions of the Organization between sessions of the Assembly to ensure that the work programme of the IMO is implemented and all bodies are functioning (Art. 26 IMO Convention). The only function it cannot undertake exception is the function of recommending to Members the adoption of regulations and guidelines relating to maritime safety, maritime security and regulations to prevent vessel-sourced pollution, a function which exclusively given to IMO Assembly. IMO Council's mandate includes drafting the budget of the IMO, and transmitting and making recommendations on the reports of committees. States that are not members of the Council have the possibility to participate in its deliberations on interests or matters that are of concern to such member States but without the right to vote. (Art. 20 IMO Convention)

### **7.1.4 Overview of ILO Governance Structure**

ILO has three bodies: the General Conference, the Governing Body and the International Labour Office, which is the Secretariat. Member States of the ILO participate at the General Conference and if elected, at the Governing Body. These two bodies have a tripartite system of governance. This means that representatives of governments, workers and employers are represented.

The General Conference is the plenary body of the ILO. Its tasks include the adoption of labour standards in the form of convention and recommendations. At the General Conference, each Member State is represented by 4 delegates: 2 from government, 1 from workers and 1 from employers. All 4 have individual votes. (ILO Constitution)

The Governing Body is the executive organ of the ILO, It has 56 titular members composed of 28 representing government, 14 representing workers and 14 representing employers. Each member of the Governing Body has one vote. (ILO Constitution). In addition to the titular members, the Governing Body also has 66 deputy members (28 Governments, 19 Employers and 19 Workers). . Switzerland is currently a deputy member of the Governing Body. The ILO's mandate is to set labour standards and develop policies for all workers, including seafarers. Switzerland participates at the ILO not as a Flag State but as a member.

## 7.2 Switzerland's Political Interests

As shown in Section 5 of this study, the political interests with maritime elements that Switzerland represents go beyond its status as a Flag State. Switzerland belongs to the global Top 20 ship-owning nations. Further, its manufacturing industry is supplier of equipment and parts important in the ship-building and ship maintenance industries. International merchanting is Switzerland's second top trading sector.

These maritime-focused political interests are embedded in Switzerland's foreign policy focus areas for 2020 to 2023 which are peace and security, prosperity, sustainability and digitalisation. (FDFA, 2020). Being a small and land-locked State, peace and security have been important and permanent components of Switzerland's foreign policy. (Graf and Lanz, 2013) Switzerland is active in peace promotion activities, activities promoting human rights and democracy, migration, human trafficking issues, humanitarian activities and non-traditional peace diplomacy including scientific diplomacy. Switzerland's priority goal under the rubric of peace and security is to secure a seat at the UN Security Council in the 2023 elections. (FDFA, 2020)

On prosperity, Switzerland seeks to address issues surrounding trade and its link with poverty. Its objective under this rubric is "to reinforce a stable, rules-based and reliable trade, financial and monetary architecture" and "promote market access and create new economic opportunities for developing States" (FDFA, 2020)

Switzerland's focus on sustainable development is part of its contribution to the UN 2030 Agenda on sustainable development. In order to implement this Agenda, Switzerland has established an interdepartmental government structure but it went beyond the "whole-of-government approach." (Babel, Thieme and Grabska, 2015) Switzerland pursues a "whole-of-stakeholders approach", bringing together not only relevant federal and local government offices together but also the private sector including industry, scientific community and civil society. (FDFA, 2020) Switzerland has been active in many activities concerning the 2030 Agenda including in climate and pollution issues.

Finally on digitalisation, Switzerland aims to raise its profile on this area, including on digital governance, and cyber diplomacy. (FDFA, 2020)

## 7.3 Conclusions

- (a) *What are the political advantages and disadvantages?*
  - (i) *What are the political advantages and disadvantages of Switzerland's status as a Flag State when it is present in international bodies?*

In general, membership in international bodies, especially those with mandates that accord with its political interests and policies, is advantageous to small States like Switzerland. As a small State, Switzerland's foreign policy agenda in peace and security, prosperity, sustainability and digitalisation are achievable only in the context of "intensive cooperation and integration" provided by international bodies. (Boehmer, Nordstrom and Boehmer, 2008) It is well-established that international organizations manage sig-

nificant areas of international political life, including, facilitating the negotiation and implementation of agreements, resolving disputes, managing conflicts, and carrying out operational activities. International organizations provide States the fora to pursue common goals in an organized or structured manner.

Switzerland's activities and potential to influence policy making via ocean-related international organisations hinges on its generic membership. Its Flag State status does not have a relevance in this context.

- (ii) *What are the political advantages and disadvantages of Switzerland's status as a Flag State in the representation of political interests (e.g. protection of the marine environment, free sea routes and free maritime trade, etc.)?*

All IMO Committees, such as the Maritime Safety Committee, the Marine Environment Committee, the Facilitation Committee, the Legal Committee, are open to Switzerland as a Member State. Switzerland will be able to represent its interests in the protection of the marine environment, freedom of navigation and trade in all these committees. Its status as a Flag State will not be of direct relevance.

Switzerland is currently not a member of the IMO Council which is the executive organ of the IMO. However, under the Rules of Procedure, non-Council members such as Switzerland are allowed to sit in their deliberations on issues of concern to the non-Council member but without the right to vote.

The ILO examines labour standard issues of all workers, not just seafarers. Switzerland's Flag State status would be of relevance with respect to ILO conventions and recommendations dealing specifically with the labour conditions of seafarers.

Switzerland's Flag State status is not of direct relevance at ITLOS. ITLOS has 21 judges who are qualified experts in the law of the sea. The judges are elected according to the UN's equitable regional grouping and the candidates' qualifications in the law of the sea. Switzerland does not have a judge at ITLOS. However, States without judges at the ITLOS are entitled to appoint a judge *ad hoc* if they have a pending case at ITLOS. Switzerland has appointed a judge *ad hoc* in the pending case concerning the M/T San Padre Pio.

Switzerland's Flag State status is also not of relevance to the CLCS. The CLCS is mandated to review the submissions of coastal States concerning the limits of their continental shelves beyond 200 nautical miles. CLCS has 21 elected members who are required to have expertise in the field of geology, geophysics or hydrography. Membership in the CLCS also takes account of the requirement of equitable geographical representation. Switzerland does not currently have a member in the CLCS but it is eligible to nominate a candidate if it so decides. In any case, the procedure of the CLCS is designed under UNCLOS not to be public and is accessible only to the coastal State making the submission. (Annex II UNCLOS) Hence, there will be no opportunities for third States such as Switzerland to promote its political interests within the CLCS process.

At the ISA, Switzerland's Flag State status will also not be of direct relevance. As a Member State of UNCLOS, Switzerland has a right to participate in the work of the ISA Assem-

bly and represent its interests. Like all Member States, Switzerland has one vote. Switzerland is also eligible to elect or be elected to become member of the ISA Council, the Legal and Technical Committee and the Finance Committee.

Like all Members States to UNCLOS, Switzerland is eligible to participate directly or as sponsoring State in deep-sea mining activities in the international seabed area. These activities include exploration and exploitation activities of three kinds of deep-sea minerals: polymetallic nodules, polymetallic sulphides, and cobalt-rich ferromanganese crusts. Currently, no commercial mining has been approved by the ISA. There are 30 exploration contracts approved involving 22 countries either as direct operator or as sponsoring States of mining companies.

Deep-sea mining in the international seabed area presents potential economic opportunities for Switzerland's manufacturing sector and trade in minerals sector. In addition to the economic opportunities, deep-sea mining activities in the international seabed area will also provide political traction for Switzerland as a landlocked State. Deep-sea mining in the international seabed area is based on the principle of common heritage of mankind. This means mining activities are to be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked, and taking into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status. (Art. 140 UNCLOS).

Further, the fundamental policies of the deep-sea mining activities in the international seabed area resonate with Switzerland's foreign policy strategy focusing on prosperity and sustainability. Deep-sea mining in the international seabed area are to be carried out:

- "in such a manner as to foster healthy development of the world economy and balanced growth of international trade, and to promote international cooperation for the over-all development of all countries, especially developing States." (Art. 150 UNCLOS); and
- in accordance with the provisions of UNCLOS to ensure effective protection for the marine environment from harmful effects which may arise from such activities. (Art. 145 UNCLOS).

*(iii) Linking with other bodies: specifically, is the status of a Flag State important for swapping of votes in elective positions in which Switzerland is interested in?*

Currently Switzerland is a member of 10 elective posts in various UN bodies (Federal Office Website). It is currently actively campaigning for the election in 2023 for one of the 10 non-permanent seats of the UN Security Council. On the whole, a comprehensive assessment of the role and significance of a Flag State status to any campaign for an elective seat at a UN body is beyond the purview of this review. However, we draw attention to a study done on past successful campaigns of other States seeking non-permanent seats at the UN Security Council. According to Malone, successful campaigns



employed several political, diplomatic and financial tools or approaches. (Malone, 2000) This means that a Flag State status, would not by itself, be sufficient to run a successful campaign. If a Flag State status plays a role, then it would only be one of the diplomatic tools that Switzerland could use. However, it also needs to be recognised that Switzerland's flag state grey listed status within the Paris Agreement certainly does not enhance the country's reputation.

In summary, regardless of its reputation as a Flag State, Switzerland will be able to leverage its votes in other elective positions in organizations and bodies in the UN and in ocean-related organizations in return for votes for a permanent seat at the UN Security Council in 2023.

*(b) What political issues and interests are involved in the status as a flag state, or are linked or dependent on it?*

The political issues associated with a Flag State status are those linked with the performance of the Flag State of its duties over vessels flying its flag. The performance of Flag States is closely monitored by the international community and partly based on records of Port State controls done on their vessels.

As already mentioned and discussed in previous sections, Switzerland is in the Grey Lists of both the Paris and Tokyo MoUs with the imminent possibility of being in the Black List of the Paris MoU. Being included in the Grey lists does not mean that Switzerland is in breach of its duties as a Flag State under international law. However, inclusion in the Grey List does indicate deficiencies which must be addressed by the Flag State.

The status of a Flag State also means that the State is under a duty to offer diplomatic protection to a vessel flying its flag subjected of enforcement measures by coastal States or Port States. One of the vessels registered in the Swiss Ship Registry, M/T San Padre Pio, was arrested and detained by Nigeria for carrying out bunkering activities in Nigeria's exclusive economic zone on 23 January 2018. Criminal cases were filed against the vessel and Master and some crew members in Nigeria's local courts.

Switzerland, exercising its diplomatic protection to a vessel flying its flag, submitted the dispute to arbitration under Annex VII of UNCLOS. At the same time, Switzerland submitted a request for provisional measures at the ITLOS for the release of the vessel and crew and cargo on 6 May 2019. On 6 July 2019, the ITLOS ordered provisional measures including the release of the vessel, crew and cargo upon the posting of reasonable bond in the amount of US\$ 14,000,000 (ITLOS, 1999). However, the vessel remains in detention in Nigeria despite the ITLOS order for the prompt release of the vessel and for Switzerland to post the required bond. (Nautilus International, 2021). According to the SMNO, the posting of the bond has so far failed due to lack of cooperation of Nigeria. Nevertheless, the ship's crew have been acquitted in the meantime in national trials in Nigeria. The detention of the ship however continues, as do the proceedings on the merits at ITLOS. Upon request, Nigeria was given an extended deadline of April 6 2021 to file its counter-memorial (ITLOS, 2021). But according to the SMNO Nigeria did not submit its counter-memorial on 6 April 2021.

The case on the merits has been transferred from an Annex VII arbitration to ITLOS and is currently pending (ITLOS, 2019). As a Flag State, Switzerland will most likely focus on the issue of bunkering on the exclusive economic zone and argue that it is an exercise of the freedom of navigation, and therefore beyond the enforcement jurisdiction of the coastal State.

Switzerland's intervention as a Flag State in the M/T San Padre Pio case confirms that it takes its duty as a Flag State seriously. Although a Flag State has a duty to provide diplomatic protection to its vessels, it is not something that Flag States automatically and willingly undertake. This is because such intervention might have implications with respect to a State's political relations with the detaining State. Moreover, in cases of long-term detentions, such intervention will also have impacts on administrative resources of the Flag State. Finally, interventions at the international level, such as filing a case at ITLOS will have financial implications for the Flag State.

*(c) What is the role and/or importance of a Flag State status to the commercial shipping sector?*

Currently, Switzerland is participating in all ocean-related conventions and international bodies including. Switzerland's status as a Flag State and the fact that its fleet at sea is small are not of direct relevance to and will not affect any opportunities to participate and even to play a leadership role at the UN, at the IMO, at the ILO and within processes of UNCLOS. All of these international bodies are open to Switzerland because as a member, Switzerland has the right to participate in these bodies.

The current status of Switzerland being in the Grey lists of two MoUs gives some cause of concern from the political perspective. Such status does not accord with Switzerland's reputation as a State where the Rule of Law is respected. However, to be included in these Lists does not mean that the Flag State is in breach of its duties. At most, it indicates a poor performance in some areas. Its continued active participation at the IMO, including the fact that it has voluntarily agreed to be audited by the IMO in 2013 indicate that the Flag State administration continues to address deficiencies in its system.

For a small and landlocked State, Switzerland's commercial shipping sector and maritime economy, as a whole is substantial. The Swiss owned commercial fleet consisted of 416 vessels in October 2020 with a total capacity of around 27 million dwt. Switzerland is in the Top 20 ship-owning nations. The fleet in Swiss ownership and/or operation is estimated to be more than 800 ships with a capacity of over 50 million dwt. In comparison to a total world fleet of 2.1 billion dwt (Clarksons, 2021) around 2.4 % of the world fleet are owned and/or operated by Swiss companies. Further, its manufacturing industry is a well-established supplier to the international shipbuilding and ship-maintenance industry. It is a leading player in international merchanting sector and in the international trade in raw materials and metals.

Seen from these perspectives, Switzerland has benefitted substantially from the shipping sector and from seaborne trade.

In this modern era of international shipping and globalised trade and enormous man-made pressures on the marine environment, being a Flag State means accepting a big chunk of the regulatory responsibilities to ensure that ships trading are seaworthy and secure and that ship pollution is reduced and prevented.

Regardless of the current size of its merchant fleet, Switzerland as a Flag State, sends a strong political signal that it does not only benefit from the commercial shipping sector. It is also committed to undertake the regulatory burdens associated with a Flag State status to ensure that the shipping sector and seaborne trade remains safe, secure and clean and the working conditions of seafarers accord with international law

*(d) What is the role/importance of a Flag State status importance to the area of leisure and Pleasure boating (and in other types of activities, e.g. marine scientific research, shipping in support of offshore economic activities such as deep-sea mining and offshore renewable energy?)*

First of all, the Flag State mechanism means that the State grants its nationality to the vessel or ship. For vessels in the area of leisure and pleasure boating, the symbolism of the flag that it flies is perhaps a relevant element. The number of vessels in the area of leisure and pleasure boating that is registered in the Swiss Flag is considerable, circa 1,600. Section 5 shows that they do not have direct positive impact on the Swiss economy but the biggest part of fees earned by SMNO come this sector.

The Flag State status of Switzerland with respect to Swiss-owned vessels undertaking philanthropic, humanitarian and cultural missions, has a relevance from the political perspective. These vessels are in essence ambassadors of Switzerland's foreign policy on peace, security and rule of law.

As for vessels in the marine scientific research and offshore economic activities or vessels in support of offshore economic activities, a Swiss Flag would be of relevance in Switzerland's foreign policy strategy areas of science diplomacy, prosperity and sustainability.

From the legal perspective, these vessels could be assessed in the framework of the high seas legal regime. When these activities are undertaken on the high seas, these are freedoms on the high seas. Freedoms on the high seas are rights of all States, whether coastal or landlocked States. (Art. 87). It is not clear how many vessels of this category are registered in the Swiss Ship Registry so that their economic importance, if any, cannot be quantified. However, there is a growing trend to utilize the marine space for emerging offshore economic activities such as offshore renewable wind parks. The Flag State mechanism is also being utilized to regulate these offshore activities.

Deep-sea mining activities in the international seabed area is governed under the principle of common heritage of mankind. As a member of UNCLOS, Switzerland has the right to participate in the mining activities as a direct operator and/or as a Sponsoring State of private mining companies.

Switzerland's Flag State status could be relevant for shipping companies interested in operating specialized vessels that provide services to the deep sea mining operators.

## 8 Cultural, Social, Scientific Relevance

This section serves as a scientific basis for the assessment of the four future scenarios with regard to the cultural, social and scientific importance of the Swiss Flag in merchant shipping but more importantly for the sporting, recreational and scientific use of Swiss seagoing vessels.

More specifically, the following questions shall be answered by the findings of this section:

What is the social, cultural, and scientific significance of Flag State status, specifically:

- a. to the sporting and recreational use of Swiss seagoing vessels?
- b. for scientific or other use of Swiss seagoing vessels?

### 8.1 Sociocultural Significance of the Swiss Flag

„Efforts to create and maintain a national merchant fleet solely for its own sake are sometimes referred to, not without good reason, as *flag sentimentality*.”

(Zuellig, 1942)<sup>23</sup>

In addition to the not always clearly conscious orientation of a national shipping policy to foreign economic and political goals, often only psychologically explainable perceptions of the importance of a national fleet, form the basis for shipping and especially subsidy policy decisions in this regard. *“National pride and prejudice, which have been important factors in promoting the growth of protective feeling, have been particularly so in regard to shipping.”* (Taussig, 1930)

In this context, the classification of the cultural or social significance of a flag at sea must be made. An assessment of the significance of a maritime flag for the national consciousness, with its positive connotations, must therefore be made independently from economic and political influences. Accordingly, the economic and supply policy significance is excluded in the following consideration of the social and cultural significance of the Swiss flag in a maritime context.

It then becomes clear that the pleasure shipping sector in particular is an important element of the Swiss flagged fleet. The identification of the citizen active in this sector with the flag at the stern of their boats and yachts is extremely relevant. This is not to be understood in terms of a national pride with negative connotations, but rather as a positive, binding element of the members of one or various shipping communities. It can also be assumed that a renunciation of the use of one's own national flag would not be

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<sup>23</sup> Freely translated; originally cited in Biebig, P. et al. (2017) *Seeverkehrswirtschaft: Kompendium*. 4th ed. Walter de Gruyter GmbH & Co KG. (Biebig, Althof and Wagener, 2017); original Quote: *“Die Bemühungen, eine nationale Handelsflotte nur um ihrer selbst willen zu schaffen und zu erhalten, werden nicht zu Unrecht mitunter als ‚Flaggensentimentalität‘ bezeichnet.”*

communicable to the citizens in this sector, or would only be communicable with great difficulty.

In the scientific, social-educational and cultural fields, the Swiss flag currently offers a number of activities. This provides the Swiss flag respectively the Swiss State a certain degree of international prestige through the presence of ships with the Swiss flag on the world's oceans.

In this context, the following examples should give an overview of the currently active endeavors at sea, with vessels flying the Swiss flag:

### **Race for Water Foundation**<sup>24</sup>

The Foundation Race for Water was founded in 2010 and is headquartered in Lausanne with the goal of preserving clean water. Race for Water is a Swiss foundation for keeping the oceans clean and for promoting access to clean water. It is particularly concerned about the oceans polluted by plastic waste and has initiated expeditions for this purpose. For this matter, the "Raceforwater Flykite", a low-carbon intensity Catamaran is travelling the world oceans, flying the Swiss flag.

### **The Ocean Mapping Expedition**<sup>25</sup>

Under the auspices of the Fondation Pacifique, a Geneva-based non-profit organization active in the realm of sustainable development, the Ocean Mapping Expedition aims to observe, understand, map and report on the state of the oceans in the light of the first circumnavigation. Its ambition is to contribute to better and wider awareness of the issues being raised by humanity's impact on this environment. For this matter, the 30-metre long sailing boat Fleur de Passion, an old German navy vessel built in 1941 but now disarmed and the biggest sailing boat flying the Swiss flag, set sail from Seville on a four-year voyage around the world in the wake of Ferdinand Magellan.

## **8.2 Conclusion**

*What is the social, cultural, and scientific significance of Flag State status?*

For Switzerland as a landlocked country, the cultural relevance of a merchant fleet has been relatively low as compared to more traditional seafaring-nations, such as Spain, Portugal or the UK. Even though the fleet/shipping flag of the aforementioned nations is not as relevant for the international merchant shipping in modern times, it can be stated that the history of those nations would always indicate a strong cultural bond. For Switzerland this is not the case. This is likely the case for the social relevance as well, especially for the relevance of merchant shipping.

*a. To the sporting and recreational use of Swiss seagoing vessels?*

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<sup>24</sup> <https://www.raceforwater.org/en/>

<sup>25</sup> <https://www.omexpedition.ch/index.php/en/>

Contrary to aforementioned, pleasure sailing and yachting has a high social relevance. The interested community in that matter is highly socially connected. Furthermore the associated relevance of the own nations' flag for this community is strong.

*b. for scientific or other use of Swiss seagoing vessels?*

There is currently not that much scientific relevance for shipping and/or marine activities within Switzerland. However, as stated, there are some activities in that field which actively participate in scientific or humanitarian enterprises.

## 9 Scenario Definition and Evaluation

This section defines the four different scenarios for the perspective future of the Swiss flag based on the functional specifications of the client and evaluates the different scenarios based on the economical, juridical and political as well as social, scientific and cultural consequences.

It can be stated that the attractiveness of a certain choice of flag is mandated by numerous individual reasons. As it could be shown in Section 4, management decisions by ship-owners regarding the choice of flag for a specific ship are made on a highly complex and highly individual decision making process with numerous criteria and sub-criteria involved. Because of this complex environment, hypothetical changes in the legal framework that go beyond the register-relevant changes specifically mentioned in the functional specifications of the client can therefore not be taken into account. That is, for each of the following four scenarios and the subsequent evaluation, in particular Switzerland's fiscal policy environment is assumed to remain unchanged.

The evaluation in terms of establishing a more attractive background for vessel owners/operators is evaluated in terms of the criteria as outlined below.

### 9.1 Scenario 1: Continuation of the Status Quo

#### 9.1.1 Outline and consequences on owned and flagged fleet

The Scenario 1 would imply that the Status Quo of the Flag State would be continued without any significant changes to its legislative or organizational structure. This would mean that the terms of admission for a vessel registry into the Swiss Flag administration would be unchanged in terms of acceptance of non-Swiss entities. It should however be stated, that the general acceptance of vessels from EU/EFTA-citizens must likely be accepted within the Swiss register, as part of the non-discrimination act for EU/EFTA-citizens. In addition, enforcement concerns have been raised by the SMNO as well as some ministries regarding outdated legislation in the (Swiss) Maritime Navigation Regulations and the Regulations on Swiss Yachts at Sea. Even if the status quo is maintained, there may be a need for minimal revision of the partly outdated regulations. Furthermore, there would be no additional incentives, e.g. measures in terms of taxation or financing, to attract more vessels to fly the Swiss Flag.

In Section 3 on Fleet development it could be shown that since the cessation of the State-backed guarantees in June 2017 the Swiss flagged merchant fleet has constantly been shrinking and not a single vessel has entered the Swiss register since then. In fact, a Swiss shipowner, who operates a large part of its fleet under the Swiss flag, has recently registered new built vessels directly in open registry States.<sup>26</sup> In addition, the Flag State performance of the Swiss flag in the Paris MoU has been worsening to an extent that a

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<sup>26</sup> See Section 3.1

blacklisting of the Swiss flag is imminent. Should a blacklisting of the Swiss flag actually occur, Swiss shipowners have been able to flag out their ships for the blacklisting period since last year. (Der Schweizerische Bundesrat, 2002)

Combined with an overall uncompetitive fiscal system at the international level, which since 2017 no longer provides incentives for shipping, it is assumed that maintaining the status quo will lead to a further decline of the merchant fleet under the Swiss flag. In this case, industry representatives assume that the Swiss merchant fleet can only last until the last guarantees expired. This assessment is shared by ISL. Should the Swiss flag indeed slip onto the Black List of the Paris MoU, it is to be expected that Swiss shipowners will leave the flag immediately in order to prevent economic damage to their companies. In this case, the shrinkage of the Swiss-flagged fleet would be significantly accelerated. The still hypothetical opening for EU/EFTA- citizens or interests because of a non-discrimination agreement in this Scenario, according to the assessment of the ISL, would also not lead to a strengthening of the Swiss flag, as the internationally uncompetitive tax and incentive system would not encourage ship owners to change flag to the Swiss register.

Still, in this scenario the Swiss fleet and register would be maintained. This would allow a possible future Swiss shipping strategy related to merchant vessels to be implemented quickly. However, the strict nationality requirements would continue to severely limit the competitiveness of the Swiss flag even in such a case.

The yachts and small crafts sector would not be affected if the status quo were maintained, so that a stable fleet can continue to be expected here.

### **9.1.2 Evaluation**

#### **9.1.2.1 Economic**

By maintaining the status quo, there are no direct effects with regard to the Swiss-owned and operated fleet and therefore no causal changes can be expected in this respect. As the Swiss flagged merchant fleet represents only a fraction of the total Swiss owned and/or operated merchant fleet, an expected further decrease in the Swiss flagged fleet is expected not to have a noticeable economic impact. As a large part of the Swiss-owned fleet already operates under foreign flags, no significant economic consequences are to be expected on the owners' side either. In fact, one shipping company that operates the majority of its fleet under Swiss flag, chose to register two new buildings directly in the Marshall Islands. Of the four companies that are currently listed as owners of Swiss flagged ships only one operates its whole fleet under Swiss flag.

In regard to the SMNO a further decline of the Swiss flagged fleet could ultimately lead to a *de facto* termination of the Swiss flag for merchant shipping, which would mean two jobs and revenues of about CHF 70,000 would be endangered. Still, the majority of fee income and jobs at the SMNO would be preserved, since the Swiss flag could be kept for the pleasure crafts and other types of small ships that are currently registered in the Swiss register.



In addition, the SMNO in its position as Flag State, could continue to carry out accreditations for IMDG-code related certifications as a sovereign task.

### **9.1.2.2 Legal**

By maintaining the status quo, there will be no direct consequences to the national and international legal framework applicable to Switzerland as a Flag State and to its fleet of ships at sea.

Switzerland's obligations as a Flag State to adopt and implement the applicable relevant international laws and regulations for maritime safety, security and the protection of the marine environment from ship pollution and working conditions of seafarers will remain. The scope of Switzerland's Flag State's duties will remain the same with respect to merchant vessels and other types of vessels in the Swiss Ship Registry. These vessels will continue to be entitled diplomatic protection in case they are subjected to enforcement measures by coastal States and Port States.

Under the law of the sea, the Flag State has the discretion to determine the conditions of the nationality of its ships. Hence, the opening up of the Swiss Ship Registry to EU/EFTA citizens is a matter for Switzerland to decide in accordance with its obligations under international law. Switzerland, however, must ensure that a genuine link between it the non-Swiss owned-and operated vessel is established. According to ITLOS, genuine link is established by the Flag State's effective exercise of its jurisdiction over the vessel as required under Art. 94 of UNCLOS.

Maintaining the status quo does not mean that the legal situation will remain stationary. On the contrary, it could be very dynamic on account of being Grey listed in the Paris MoU and Tokyo MoU. Vessels of Flags that are in the Grey list of MoUs are targets of more inspections and could be banned access to ports where Port State Control arrangements MoUs are in place.

If Switzerland is blacklisted in the Paris MoU, the remaining merchant vessels will flag-out in order to remain competitive in the market. If this were to happen, Switzerland's Flag State status does not cease from the perspective of international law. Switzerland remains responsible as a Flag State with respect to the ocean-going yachts and coastal boats and ships for special purposes.

By maintaining the status quo, there will be no consequences to Switzerland's status as member of UN, UNCLOS, IMO and ILO. As a Member State, Switzerland possesses rights to participate in the legislative processes of these conventions and in the organizations established by these conventions. Switzerland's rights are not affected by its status as a Flag State.

### **9.1.2.3 Political**

Maintaining the status quo will have no direct impact on Switzerland's political status in international bodies. Its participation at the UN, the IMO, the ILO and in UNCLOS bodies

will not be affected. Switzerland's representation of its political and economic interests in all of these bodies will continue.

Switzerland's Flag State status will not be significant for swapping votes in elective positions Switzerland is interested in. It will be able to leverage its votes in other elective positions in organizations and bodies in the UN and in ocean-related organizations in return for votes for a permanent seat at the UN Security Council in 2023.

### **9.1.2.4 Social, Scientific and Cultural**

It can be stated that there would be no direct effects from a continuation of the status quo in this scenario on the social, scientific and cultural context. All scientific and / or cultural enterprises would continue as is. Same would be true for the social field as far as effects on pleasure and sport yachting is concerned.

Taking into account that a continuation of the status quo could potentially lead to a further diminishing merchant fleet as well as potentially further needs for maritime enterprises to draw the state-backed guarantees, it could be anticipated that the general motion within the public could tend to disaffirm the political solutions within the shipping sector and could thus further lead to social pressure in terms of future resolutions within this sector. This could indirectly affect a positive turnaround for the Swiss merchant shipping sector and the Swiss fleet in general.

## **9.2 Scenario 2: Modernization and Opening of the Swiss Register**

### **9.2.1 Outline and consequences on owned and flagged fleet**

A second possible scenario for the Swiss registry would introduce a modernization of the Flag registry, by opening the register for foreign citizen and interests. The scenario would include certain measures, in terms of vessel registration, in order to attract commercial vessel owners to register their fleets within the Swiss registry. The basic principle would mean an opening towards all nationalities (not only EU/EFTA), although still subject to effective jurisdiction, i.e. based on the domicile principle. Possibly, however, this can be limited or exhausted to corresponding entities (e.g legal persons) for the administration/management, while capital and beneficiaries can also be located abroad.

Even though, the elimination of the limiting factor of strict nationality in this scenario would mean that basically every shipowner based in Switzerland, regardless of citizenship or source of funding, could register their ships in the Swiss register, the ISL does not expect a substantial flagging-in of ships into the register. This is due to the fact that despite the opening of the flag, the non-competitive fiscal system without incentives would continue to exist. Thus, no pull factors to encourage the shipowners to change their ships to the Swiss register or even to relocate their place of management to Switzerland would be established in this scenario. The Swiss register would inevitably stay in

competition with Flag States like Singapore or the Marshall Islands who simply offer a better and more all-encompassing package of benefits and incentives.

Therefore, Scenario 2 would basically lead to a similar outcome as Scenario 1, in terms of fleet size and ships flying the Swiss flag. In this scenario, ISL also assumes a further decline of the Swiss-flagged fleet, unless a comprehensive, internationally competitive fiscal regime with the intent to actually strengthen the Swiss flag is created that goes beyond the mere introduction of a tonnage tax.

Although a consultation process for the introduction of a tonnage tax has recently been launched, the actual introduction and ultimate design of a tonnage tax system in Switzerland remains hypothetical at this point in time. The planned design of a tonnage tax in Switzerland based on the EU Community guidelines on State aid to maritime transport is so broadly interpretable with regard to the choice of flag that even shipping companies operating less than 60% of their fleet under Swiss or EEA flags could opt for tonnage taxation, provided that it is demonstrated that the EWR/Swiss-flagged share of the global tonnage eligible for the tonnage taxation has not decreased on average. Thus, even companies with a very limited amount of EWR/Swiss-flagged ships, or even none, may opt for the tonnage tax.

The yachts and small crafts sector would not be affected in this scenario, so that a stable fleet can continue to be expected here.

### **9.2.2 Evaluation**

#### **9.2.2.1 Economic**

By opening the Swiss register to foreign ownership or interests, there are no direct effects with regard to the Swiss-owned and operated fleet and therefore no causal changes to be expected. As the Swiss flagged merchant fleet represents only a fraction of the total Swiss owned and/or operated merchant fleet, an expected further decrease in the Swiss flagged fleet is expected not to have a noticeable economic impact. As a large part of the Swiss-owned fleet already operates under foreign flags, no significant economic consequences are to be expected on the owners' side either.

In regard to the SMNO a further decline of the Swiss flagged fleet could ultimately lead to a de facto termination of the Swiss flag for merchant shipping, which would mean two jobs and revenues of about CHF 70,000 would be endangered. Still, the majority of fee income and jobs would be preserved, since the Swiss flag could be kept for the pleasure crafts and other types of small ships that are currently registered in the Swiss register.

In addition, the SMNO in its position as Flag State, could continue to carry out accreditations for IMDG-code related certifications as a sovereign task.

#### **9.2.2.2 Legal**

From the law of the sea perspective, opening the Swiss register to foreign-owned and controlled vessels would be within the sovereign discretion of Switzerland as a Flag State.

Art. 91 gives the Flag States the right to fix the conditions of nationality of vessels flying their flag. According to ITLOS, the requirement of “genuine link” under Art. 91 is not tied to requirements of nationality of ownership or the nationality of the controlling interests of the vessel. Switzerland, as a Flag State, will meet the genuine link by exercising effective control and jurisdiction over the vessel flying its flag in accordance with Art. 94 of UNCLOS. Changes to the requirements of nationality will mean amendments to the current Swiss law on ship nationality will have to be passed. There will be no need to introduce corresponding changes to Swiss law relating to maritime safety and rules and regulations against ship pollution and on working conditions for seafarers on account of changes to the nationality requirements

Switzerland’s Flag State status means that it has primary responsibility to exercise jurisdiction over vessels flying its flag, regardless of the nationality of ownership and nationality of controlling interests. This will also mean that Switzerland has a duty to extend diplomatic protection to vessels subjected to enforcement jurisdiction of other States.

The opening of the Ship Registry to non-Swiss nationals will not affect the scope of Switzerland’s Flag State duties towards yachts and coastal boats flying its flag.

Opening the Ship Registry to non-Swiss nationals will not have any impact on Switzerland’s right to participate in the entire legislative process of the IMO and the ILO. Switzerland has the right to propose new legislation or amendments to legislation, regardless of the type of Ship Registry it is maintaining.

Switzerland’s membership in the UNCLOS also allows it to participate in the legislative work of the ISA regardless of any changes in its Ship Registry. Participation in the work of the ISA and in deep-sea mining activities in international seabed area will be of interest to Switzerland since, among others, it is a manufacturing country supplying the heavy industries in general and it is an international trading hub for essential commodities like metals.

As for the diplomatic conferences and meetings relating to the law of the sea organized by the UN General Assembly, such processes are open to all Member States of the UN. A Flag State status is therefore also not relevant in order to participate.

### **9.2.2.3 Political**

Modernizing the Swiss Registry by opening it to non-Swiss nationals could have an impact on the reputation of the Swiss Flag State. Though not synonymous, the term “open registry” is sometimes used interchangeably with “Flags of Convenience.” Switzerland can address this issue by ensuring that it is effectively exercising its duty as a Flag State over vessels flying its flag.

The opening of the Swiss Ship Registry will not be an issue with respect to Switzerland’s representation and participation in international bodies of which it is a member. As a member of these organizations, Switzerland has the right to participate, including the right to vote and be elected to positions in these organizations. Its Flag State status does not have any bearing on this right of participation.

Switzerland is currently campaigning for a non-permanent seat at the UN Security Council for the 2023 election. Previous campaigns of other States have shown that a State must use all kinds of diplomatic tools in order to win a seat at an international body. Switzerland's Flag State status per se will not be determinant in such an election. Switzerland can swap its votes in other elective positions in organizations and bodies in the UN and in ocean-related organizations in return for votes for a permanent seat at the UN Security Council in 2023.

### **9.2.2.4 Social, Scientific and Cultural**

A modernization of the Swiss registry as outlined in this scenario would not have any direct implications for the social, scientific and cultural field. As economic effects tend to be minimal within this scenario, there is only a slight chance that a positive general notion within the public could be generated by a strengthening of the maritime sector, i.e. the public would not directly get a more positive impression of the Swiss merchant marine Flag and its maritime economy.

There would be no direct effects on scientific and / or cultural enterprises. Same would be true for the social field as far as effects on pleasure and sport yachting are concerned.

## **9.3 Scenario 3: Modernization and Limitation and/or Specialization of the Swiss flag**

### **9.3.1 Outline and consequences on owned and flagged fleet**

The third scenario is probably the most differentiated of the options considered, as it offers a wider scope in terms of design. This scenario includes possibilities for maintaining the Swiss flag by allowing the Flag State to model the design of the future fleet within certain limits. For the purposes of this report, two variants are presented.

#### **Variant 3a**

In a first variant, it would be conceivable that the fleet structure is modernized and adapted by the regulatory authority to make adjustments to the technical licensing requirements, i.e. to tighten vessel eligibility criteria. In this variant, now referred to as variant 3(a), the continued existence of the Swiss flag and thus the fleet at sea shall be secured by introducing quality restrictions, for example on classification, year of construction or efficiency standards.

Within the current environment of taxes and incentives, this scenario would lead to similar outcomes as Scenarios 1 and 2 as the attractiveness and competitiveness of the Swiss fleet are not increased by these measures. Certainly, the introduction of quality restrictions helps Flag States to filter out obviously more risky ships and by that maintaining a high quality fleet. But, in case of Switzerland, first of all, ships in general need to be attracted before a decision can be made which ships to refuse. In addition, the implementation of quality restriction usually comes with benefits and incentives offered by the Flag State to

especially attract young high quality ships. Furthermore, until today quality issues regarding age and classification standards have never been an issue in Switzerland, because the Swiss fleet has been one of the youngest and most modern fleets in the world for many years.

In case the Swiss Confederation on a political basis decided on a strategy to implement an all-encompassing and competitive fiscal and regulatory approach on international merchant shipping with the intent to strengthen the Swiss flag, the implementation of quality restrictions could certainly help the Flag State to effectively exercise control over its fleet, since many high-risk ships would be filtered out before registration. Still, as shown in Section 4.6 a young fleet does not protect against poor performance at Port State inspections.

The yachts and small crafts sector would not be affected in this scenario, so that a stable fleet can continue to be expected here.

### **Variant 3b**

In a scenario now referred to as Variant 3(b), the Swiss flag is retained in terms of administrative and political structures, but the aim is to specialize the fleet in individual segments (excluding the merchant fleet). From ISL's point of view, the most effective scenario would be the specialization of the Swiss flag in the field of yachts and small craft. This means the abandonment of the register for merchant shipping while maintaining the current structures for pleasure, sport and other small craft. Another hypothetical scenario could be a futures specialization on the registration of deep-sea mining vessel and vessels supporting the offshore renewable energy sector, as it could be shown that there might be economic possibilities in these emerging sectors.

## **9.3.2 Evaluation**

### **9.3.2.1 Economic**

#### **Variant 3a**

In this Scenario, there are no direct effects with regard to the Swiss-owned and operated fleet and therefore no causal changes to be expected. As the Swiss flagged merchant fleet represents only a fraction of the total Swiss owned and/or operated merchant fleet, an expected further decrease in the Swiss flagged fleet is expected not to have a noticeable economic impact. As a large part of the Swiss-owned fleet already operates under foreign flags, no significant economic consequences are to be expected on the owners' side either.

In regard to the SMNO a further decline of the Swiss flagged fleet could ultimately lead to a de facto termination of the Swiss flag for merchant shipping, which would mean two jobs and revenues of about CHF 70,000 would be endangered. Still, the majority of fee income and jobs would be preserved, since the Swiss flag could be kept for the pleasure crafts and other types of small ships that are currently registered in the Swiss register.

In addition, the SMNO in its position as Flag State, could continue to carry out accreditations for IMDG-code related certifications as a sovereign task.

### **Variant 3b**

The economic impact of this scenario variant would not differ from scenario Variant 3a. The only difference is that in this case the register for merchant shipping is liquidated in an official and regulated manner and it does not need to be waited until the last guarantees expire. The advantage here would be that the structures for the register of merchant ships would not have to be maintained on a long-term and costly basis, with a simultaneously shrinking fleet. In fact, such a situation could even lead to an improvement of the competitiveness of Swiss shipowners, as they could register their ships in more advantageous countries for their needs in case of abandonment of the Swiss flag, while maintaining the Swiss guarantees on their ship.

### **9.3.2.2 Legal**

#### **Variant 3a**

Variant 3a envisions a scenario where the Swiss Flag would introduce new vessel eligibility criteria. Examples are classification, year of construction or efficiency. This would address not only the quality of the Flag but also issues of poor Flag State performance. Upgrading the technical requirements of vessels allowed to be registered in its Ship Registry is within the sovereign discretion of Switzerland. Art. 91 of UNCLOS empowers the Flag State to fix the conditions of nationality of ships.

Under Variant 3a, Switzerland's obligation as a Flag State to adopt and implement the applicable relevant international laws and regulations for maritime safety, security, the protection of the marine environment from ship pollution, and working conditions for seafarers will remain. The scope of Switzerland's Flag State's duties will remain the same with respect to merchant vessels and other types of vessels in the Swiss Ship Registry. These vessels will continue to be entitled diplomatic protection in case they are subjected to enforcement measures by coastal States and Port States.

#### **Variant 3b**

Variant 3b envisions the formal closure of the Ship Registry with respect to merchant shipping but retaining the administrative structures for pleasure, sports and small crafts. There is already an existing Swiss law relating to these vessels so there is no need to introduce new legislation.

From the perspective of UNCLOS, a Variant 3b scenario will not change Switzerland's status as a Flag State. UNCLOS in any case does not make a distinction between merchant and non-merchant vessels for purposes of assigning a nationality to a vessel. Switzerland will continue to be considered a Flag State and will continue to be under a duty to exercise effectively its jurisdiction over administrative, technical and social matters in relation to such vessels.

In general, international laws and regulations from IMO conventions will not apply to these non-commercial vessels. However, provisions in respect to safety of life at sea and rules on the prevention and reduction of pollution from ships still apply. Chapter 5 of SOLAS for example is applicable to all ships and it establishes rules and standards for radar reflectors, lifesaving signals, danger messages, distress messages, voyage planning and misuse of distress signals. International navigation rules from the International Regulations for Preventing Collisions at Sea (IRPCS or COLREGs) will also apply to these vessels when they are on the high seas or on waters connected to the high seas which are navigable by seagoing vessels.

Under both scenarios Variant 3a and Variant 3b, there will be no impact with respect to Switzerland's participation in the legislative processes in international bodies such as the IMO, UN General Assembly and UNCLOS bodies.

Under Variant 3b, Switzerland could also consider actively extending its Ship Registry to highly specialized vessels undertaking activities in support of offshore economic activities such as offshore renewable energy and deep-sea mining. . Doing so will not have any impact on its Flag State duties under UNCLOS, IMO and ILO instruments.

### **9.3.2.3 Political**

#### **Variant 3a**

Upgrading the technical requirements of vessels in the Swiss Registry could have a positive impact on the reputation of the Swiss Flag State and for Switzerland as a whole.

However, this reputation will not play a role with respect to Switzerland's representation and participation in international bodies where it is a member. As a member of these Switzerland has right to participate, including the right to vote and be elected to positions in these organizations. Its Flag State status does not have any bearing on this right of participation.

While it will not be a crucial element, an improved reputation as a Flag State will likely support Switzerland activities in the international political arena. Switzerland is currently campaigning for a non-permanent seat at the UN Security Council for the 2023 election. Previous campaigns of other States have shown that a State must use all kinds of diplomatic tools in order to win a seat at an international body. Switzerland can swap its votes in other elective positions in organizations and bodies in the UN and in ocean-related organizations in return for votes for a permanent seat at the UN Security Council in 2023.

#### **Variant 3b**

Variant 3b means closing the Ship Registry from merchant shipping. This scenario will have some political implications. Switzerland's economy has benefitted substantially from the shipping sector and from seaborne trade. The shipping sector is highly regulated mainly through the legal mechanism of the Flag State. Being a Flag State of merchant vessels sends a political message that Switzerland is not only ready to enjoy the benefits from the shipping sector and seaborne trade. A Flag State status is also a political



statement that Switzerland is committed to undertake the responsibilities to ensure that the shipping sector and seaborne trade is safe, secure and a clean industry.

Closing its Ship Registry from merchant shipping will not necessarily translate into a bad reputation for Switzerland in the international political arena. Switzerland is currently campaigning for a non-permanent seat at the UN Security Council for the 2023 election. Previous campaigns of other States have shown that a State must use all kinds of diplomatic tools in order to win a seat at an international body. Switzerland can swap its votes in other elective positions in organizations and bodies in the UN and in ocean-related organizations in return for votes for a permanent seat at the UN Security Council in 2023.

### **9.3.2.4 Social, Scientific and Cultural**

The effects of both variants within this scenario could be evaluated as the most promising for this evaluation field. Within Variant 3(a) a specialization of the merchant marine flag on both young and environmental-friendly vessels or a dedicated specialization on certain promising vessel types would likely create a positive image of the sector within the Swiss public. As the negative impacts of a cessation of the yachting sector or scientific and cultural endeavors would not take place, it can be assumed that this variant could create a positive social feedback within the public.

For Variant 3(b) the evaluation tends to be not as positive as within the Variant 3(a), as an abandonment of the merchant fleet/registry could create an image that Switzerland is losing part of its sovereignty.

## **9.4 Scenario 4: Abandonment of the Swiss Ship Register and the Status as a Flag State**

### **9.4.1 Outline and consequences on owned and flagged fleet**

The fourth scenario would mean a complete abandonment of the Swiss registry and the status as a Flag State. This means, Switzerland would give up its status as Flag State with all accompanying rights and duties.

This scenario can be described as the most drastic of the four scenarios. It would mean that the registry for both commercial and non-commercial vessels would not be continued. Furthermore, Switzerland would abandon its status as a Flag State.

### **9.4.2 Evaluation**

#### **9.4.2.1 Economic**

In this Scenario, there are no direct effects with regard to the Swiss-owned and operated fleet and therefore no causal changes to be expected. As the Swiss flagged merchant fleet represents only a fraction of the total Swiss owned and/or operated merchant fleet, the cessation of the Swiss flagged fleet will not have a noticeable economic impact. As a large part of the Swiss-owned fleet already operates under foreign flags, no significant

economic consequences are to be expected on the owners' side either. In fact, such a situation could even lead to an improvement of the competitiveness of Swiss shipowners, as they could register their ships in more advantageous countries for their needs in case of an abandonment of the Swiss flag, while maintaining the Swiss guarantees on their ships.

In regard to the SMNO this scenario would mean that the administration would be shut down. The impact would be the loss of all jobs at the administration including a loss of all fee income, including fees from the yachts and small crafts sector. In addition, the accreditations for IMDG-code related certifications, that the SMNO currently exercises as a sovereign task, needs to be transferred to another organization, e.g. the Swiss Accreditation Service SAS.

### 9.4.2.2 Legal

From the international law perspective, an abandonment of a Flag State status would not mean that Switzerland loses its right or freedom of navigation and other freedoms of the high seas. However, for the freedoms to be exercised, the State is required to establish a legal mechanism in order to regulate its activities on the high seas. For freedom of navigation and other freedoms that require ships or vessels, UNCLOS requires States to establish the Flag State mechanism. Hence, without a Flag State mechanism, Switzerland cannot enjoy its freedom of navigation nor the freedom to undertake other offshore economic activities and marine scientific research.

However, reference is made to the ongoing negotiations for a binding agreement to address gaps in UNCLOS relating to marine genetic resources as well as regulation of other economic and development activities in areas beyond national jurisdiction. The effects on the Flag State mechanism on the high seas remains to be seen.

If Switzerland abandons its status as a Flag State, it will cease to have obligations as a flag State under UNCLOS, under IMO and ILO instruments. It will continue to be under a duty to adopt and comply with duties addressed to all contracting States. This includes the duty to protect and preserve the marine environment (Art. 192 UNCLOS).

Obligations addressed to all contracting States such as the implementation of the IMDG Code under SOLAS will continue to be binding on Switzerland (IMO, 2020). These obligations may include classifying dangerous goods, approval of packaging of dangerous goods and establishing quality assurance programs. Under the MLC, Switzerland will also continue to have obligations relating to the effective exercise of jurisdiction over recruitment and crewing agencies operating within its territory.

A complete abandonment of its Flag State status would not have implications for Switzerland's membership in UNCLOS, at the IMO, at the ILO and at the UN. These conventions will continue to be binding on Switzerland. Switzerland will continue to have the right to participate in the legislative processes of these bodies.

### **9.4.2.3 Political**

A complete abandonment of the Flag State status could send a problematic political signal. It might be perceived that Switzerland has benefitted substantially from the shipping sector and from seaborne trade. But is not willing to shoulder associated regulatory burdens that come with the shipping sector and seaborne trade sector.

The shipping sector is one of the most regulated industries. The Flag State mechanism is principal mechanism established by the international community to enable shipping and seaborne trade. Being a Flag State not only means granting nationality to the ship flying its flag, it also means accepting the associated responsibilities to ensure that ships that are trading are compliant with regulations relating to vessel safety, reduction and prevention of ship pollution and international labour standards for seafarers.

In addition, Switzerland's intervention as a Flag State in the M/T San Padre Pio case has shown that such intervention may have impacts on administrative resources. Finally, interventions at the international level, such as filing a case at ITLOS will have financial implications for the Flag State. An abandonment of its Flag State status would thus eliminate the risk of financial losses from such interventions.

The abandonment of Flag State status will, however, not affect Switzerland's memberships and participation in international bodies. Switzerland will be able to continue to represent its interests and foreign policy in these bodies.

Switzerland's lack of a Flag State status would not be significant for swapping votes in elective positions Switzerland is interested in. Switzerland will continue to be able to leverage its votes in other elective positions in organizations and bodies in the UN and in ocean-related organizations in return for votes for a permanent seat at the UN Security Council in 2023.

### **9.4.2.4 Social, Scientific and Cultural**

The entire abandonment of the Swiss ship registry and its status as a Flag State would likely have the gravest impact on social, scientific and cultural entities. It could be anticipated that the general public would not support a political will of abandoning the flag for small and pleasure crafts. Furthermore it could be anticipated that the general notion of the public in terms of abandoning scientific and cultural enterprises at sea would not be positive, since it is generally be assumed that a developed nation such as Switzerland would have a certain grade of activity in this field.

## 10 Summary and Recommendations

### 10.1 Summary

Switzerland belongs to the top 20 ship-owning nations in the world. As of October 2020, there are 416 merchant vessels with a total capacity of 16.0 million dwt to 27.0 million dwt in Swiss ownership. In addition, the number of ships operated by Swiss nationals or are under their control is considerable. As of October 2020 the fleet in Swiss ownership and/or operation is estimated to be more than 800 ships with a capacity of over 60 million dwt and almost 52 million GT.

However, from the perspective of the law of the sea, Switzerland does not have a legal relationship with the majority of Swiss-owned and controlled merchant vessels. This situation is not unique to Switzerland. The situation is similar for other top ship-owning nations including Japan and Greece. Switzerland exercises Flag State duties and powers only with respect to the 18 merchant vessels and the 1,600 pleasure yachts, 350 coastal boats, and some vessels for special purposes.

The present study has shown that fiscal considerations are of utmost importance and a favorable tax regime with strong incentives is a prerequisite to attract businesses and ship's tonnage in order to strengthen the maritime cluster. The international competition between national and open registry States led to a situation where mainly every maritime nation today offers a competitive fiscal system with incentives to hold and/or attract shipping and ship management firms alike. Because of the high-quality and strong incentives of open registry States today, countries with national registers have to make an ever greater effort to remain competitive. Today 70 % of the world fleet in terms of gross tonnage is registered in open registers, which clearly shows the strong affiliation of the shipowners towards these registries. In case of Switzerland, around 97 % of the Swiss owned fleet are operated under foreign flags, whereas the Liberia, Panama, and especially the Marshall Islands seem to be the flags of choice.

With the termination of the guarantee system in 2017, to-date Switzerland offers no fiscal incentives to either attract nor to hold ships in their register and since 2017 no new ships have entered the Swiss flag. Instead, inter alia bankruptcies led to a constant shrinking of the Swiss flagged fleet with the subsequent situation where the remaining fleet could face a potential black-listing in the Paris MoU in the near future. Keeping this environment in mind, the Swiss register as it is now, is seen as internationally non-competitive. However, except of the mediocre performance in Port State controls, this situation is explicitly not seen as lying in the responsibility of the registry, i.e. in the area of the administration, but rather at the State level. In particular, the lack of an all-encompassing shipping strategy can serve as an explanation here. It could be shown, that very strict nationality requirements to register ships in the Swiss register are certainly a factor lessening the register's competitiveness, but are not causal for its actual state. Nor would a liberalization of the nationality requirements as a first measure lead to regaining inter-

national competitiveness and a subsequent flagging-in of ships, but needs to be embedded in an overall, interministerial long-term strategy with the intent to actually strengthen the Swiss flag.

### Economic Relevance

The importance of the maritime economy for the Swiss national economy as a whole, especially the seaborne trade of goods, goes way beyond the effects directly generated within Switzerland. The Swiss economy is heavily reliant on the shipping industry, because of their understanding as an export country, but more importantly because of the leading role in international commodities trading. In addition, 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. Here, one can say with certainty that several thousand jobs of the machinery and equipment manufacturers are directly dependent on the international maritime economy. Finally, the Swiss economy as a whole is only functioning because of the maritime sector. Even though Swiss trade statistics assign only a small amount of the imported and exported trade volumes to the shipping sector, it could be shown that this is only true because of the place of statistical recording, namely at the Swiss border. The importance of the means of transport *ship* is in fact a lot bigger if not only the point of border crossing would be considered.

With a fleet of more than 800 ships in ownership and/or operation, the Swiss commercial shipping contributes a not inconsiderable share to the value added and employment in the Swiss economy. The share of ships under the Swiss flag only makes up a very small part and is negligible in its importance for the Swiss economy. Same is true for the importance of Switzerland's status as a flag state in this regard. The vast majority of Swiss owned ships are being operated under foreign flags, mainly in open registers. Even the four companies that operate the 18 remaining ships in the Swiss register, already operate 50 % of their fleets under foreign flags and the owners tend to register new buildings directly in open registers. In addition, whereas for traditional maritime nations with direct access to the sea, the preservation of maritime know-how, and thus a strong fleet under national flag for the training of young seafarers, is of utmost importance for maintaining a competitiveness and smooth import and export of goods by seagoing vessels, this necessity does not arise for a landlocked country like Switzerland. The fact, that several Swiss associations within the Swiss maritime economy are actively promoting the introduction of a tonnage tax system that should be linked to the flags of EU/EFTA or of other trading partners, rather than to the Swiss flag alone, underlines the secondary importance of the Swiss flag for the Swiss economy.

### Legal Relevance

The applicable international legal framework to Switzerland and its fleet of ships at sea is the UNCLOS, IMO instruments, ILO instruments and other ocean-related agreements. The international regulatory framework for shipping is primarily anchored on the Flag State mechanism. The Flag State mechanism enables the State to enjoy its freedom of navigation and to undertake seaborne trade.

For the Flag State, it is not only about enjoying a right on the high seas, it also means being primarily responsible to ensure that the vessels flying its flag are compliant with international laws and regulations under UNCLOS, IMO and ILO instruments.

The Flag State mechanism also establishes the jurisdictional powers of the Flag State vis-à-vis the vessels flying its flag. The Flag State holds primary jurisdiction over vessels flying its flag, regardless of which maritime zone the vessel finds itself in. On the high seas, the Flag State possesses exclusive jurisdiction over its vessels. Depending on the location and activity of the vessel, the UNCLOS, however, also allocates jurisdiction over vessels or ships to the Coastal State and Port States. In this regard, the Flag State has the right and the duty to extend diplomatic protection to vessels that are subjected to the enforcement measures of coastal States or Port States.

Currently, two issues which are of legal relevance for the Switzerland as a Flag State are highlighted here: 1) the pending case with Nigeria involving the *MT San Padre Pio* and 2) Switzerland's inclusion in the Grey lists of the Paris MoU and Tokyo MoU. Switzerland's intervention in the *MT San Padre Pio* arrest and detention confirms it is taking its responsibility as a Flag State seriously. As for its inclusion in the Grey Lists, the same is not indicative of a breach of duties as a Flag State. It could indicate at the very least a mediocre performance in some areas of implementation. Switzerland participated in the IMO voluntary audit scheme of Flag State implementation of duties in 2013. This confirms that Switzerland is addressing issues of its Flag State performance and is currently trying to reestablish its reputation as a quality flag state in this regard.

Be that as it may, this study has shown that Switzerland's Flag State status is not of direct relevance to its the right to participate in the legislative processes of international bodies involved in shipping and ocean matters.

At the IMO, Member States can propose new legislation or amendments to legislation, regardless of whether they are Flag States or not. When decisions are taken at the committees by voting, each Member shall have one vote. (Art. 57, IMO Convention) As a general rule, however, the IMO bodies strive to arrive at a consensus rather than vote. At the IMO, Switzerland is not only representing its interests as a Flag State but more importantly, it is representing the interests of Swiss industries associated with the shipping sector and seaborne trade.

With respect to the UNCLOS, Switzerland as a Member State has a right to participate in the amendment process of the UNCLOS (Art. 314 UNCLOS). Switzerland's membership in the UNCLOS also allows it to participate in the legislative work of the ISA. Participation in the work of the ISA and in deep-sea mining in international seabed area might be of interest to Switzerland since, among others, it is a manufacturing country supplying the ship-building and ship-maintenance sectors and it is a leading international trading hub for essential commodities like metals.

As for the diplomatic conferences organized by the UN General Assembly, such process is open to all sovereign States. A Flag State status is not directly relevant in order to participate in this process. A binding agreement on marine biodiversity in areas beyond

national jurisdiction is currently being negotiated at the UN General Assembly. Switzerland has been participating in its negotiations, exercising its right as a sovereign State and as a member State of the UN and UNCLOS.

### *Political Relevance*

Switzerland's Flag State status does not play a crucial role in the international political arena. Switzerland's maritime economic interests go beyond the interests of Flag States. In addition to Flag State issues, Switzerland has an interest in representing the Swiss ship-owners, the Swiss manufacturing industry supplies the international shipbuilding sector and the international seaborne trade, and the Swiss seaborne trading sector. Switzerland's representation of these political and economic interests at the IMO will not necessarily be adversely affected by any change of status as a Flag State. As a Member of the IMO, Switzerland is entitled to participate in the work of the Assembly and of all IMO Committees, such as the Maritime Safety Committee, the Marine Environment Committee, the Facilitation Committee, or the Legal Committee. Regardless of any change in its Flag State status, Switzerland will be able to continue to represent its interests in the protection of the marine environment, freedom of navigation and trade in all these committees.

In bodies established under UNCLOS, Switzerland's Flag State status will not have a direct relevance to its right to vote judges of ITLOS and members of CLCS and to nominate candidates to these two bodies. Switzerland does not have a judge at ITLOS. However, States without judges at the ITLOS are entitled to appoint a judge ad hoc if they have a pending case at ITLOS. Switzerland has appointed a judge ad hoc in the pending case concerning the M/T San Padre Pio.

As a Member State of UNCLOS, Switzerland has a right to participate in the work of the ISA Assembly and be elected to the Council and its committees. Like all Member States to UNCLOS, Switzerland is eligible to participate directly or as sponsoring State in deep-sea mining activities in the international seabed area. Deep-sea mining in the international seabed area presents potential economic opportunities for Switzerland's manufacturing sector and trade in minerals sector. Switzerland's Flag State status will also not be of issue at the ISA.

Switzerland's Flag State status does not play a role in its entitlement to participate in meetings and diplomatic conferences organized by the UN General Assembly. Switzerland is participating in the on-going negotiations for a binding agreement on marine biodiversity in areas beyond national jurisdiction. This agreement will be significant not just for the conservation of marine biodiversity in areas beyond national jurisdiction. The agreement will also be the Flag State mechanism which currently applies to other economic activities undertaken on the high seas.

Finally, the political relevance of Switzerland as a Flag State was examined with respect to its interests in elective positions in international bodies. Switzerland's Flag State status is not directly relevant to this issue. Switzerland will be able to leverage its votes in other elective positions in organizations and bodies in the UN and in ocean-related organizations in return for votes for a permanent seat at the UN Security Council in 2023.

### *Cultural, Social, Scientific Relevance*

For Switzerland as a landlocked country, the cultural relevance of a merchant fleet has been relatively low as compared to traditional seafaring-nations with direct access to the sea, where the history of those nations would always indicate a strong cultural bond. This is likely the case for the social relevance as well, especially for the merchant shipping sector. Contrary to aforementioned, pleasure sailing and yachting has a high social relevance. The interested community in that matter is highly socially connected. Furthermore the associated relevance of the own nations' flag for this community is strong. The high and stable number of yachts and small crafts in the Swiss register reflects the importance of the Swiss flag for this sector. Even though, the general scientific significance of shipping and the maritime economy within Switzerland is relatively low, there still is a smaller number of scientific, social-educational and cultural activities under Swiss flag.

### *Scenario Evaluation*

In addition to evaluating the four scenarios in terms of their impact on economic, legal, political and sociocultural aspects, an attempt was also made to assess the respective impact on the size of the Swiss flagged merchant fleet and the yachts and small crafts sailing under the Swiss flag. It could be shown that due to the unattractive conditions of the Swiss flag with regard to the tax and fiscal system in international comparison, it is not expected that any of the scenarios investigated would lead to a significant increase in the number of merchant ships under the Swiss flag. Except for the scenarios that envision an immediate elimination of the Swiss flag for merchant vessels, every other scenario would lead to a gradual decline in the merchant fleet under the Swiss flag. Ultimately, with the expiration of the last state-backed guarantees, it can be expected that there will be no more merchant ships under Swiss flag. Except in the scenario that foresees the complete abolition of the Swiss flag, the demand for registration of yachts and small crafts is expected to remain high and the number of vessels flying the Swiss flag should be stable.

As described, the status as a Flag State has only a very marginal importance for the Swiss economy and the further decline of the Swiss-flagged merchant fleet is not expected to have noticeable impact on the overall economy. The SMNO currently performs sovereign tasks that are important for the Swiss economy, for example as an accreditation organization for IMDG-code related certifications. However, these tasks can easily be performed by other organizations, e.g. the Swiss Accreditation Service SAS. Thus, none of the scenarios examined should have any appreciable impact on the Swiss economy.

In terms of legal aspects, only the complete abolition of the Swiss flag would have an impact worth mentioning. In the scenarios that provide for the continuation of the Swiss flag, even in the case of partial abolition, e.g. of the register for merchant ships, Switzerland's obligations as a Flag State to adopt and implement the applicable relevant international laws and regulations for maritime safety, security and the protection of the marine environment from ship pollution and for the working conditions relating to seafarers will remain. The scope of Switzerland's Flag State's duties will be the same with respect to merchant vessels and other types of vessels in the Swiss Ship Registry. These vessels



will continue to be entitled diplomatic protection in case they are subjected to enforcement measures by coastal States and Port States. Since UNCLOS does not make a distinction between merchant and non-merchant vessels for purposes of assigning a nationality to a vessel, Switzerland will continue to be considered a Flag State, even when specializing the register on yachts and small crafts.

Even the cessation of a Flag State status does not mean that Switzerland loses its right or freedom of navigation and other freedoms of the high seas. However, UNCLOS requires States to establish a Flag State mechanism to enjoy its freedoms of navigation and other economic activities on the high seas. Cessation of Flag State status will mean that Switzerland will cease to have obligations as a flag State under UNCLOS and under IMO and ILO instruments. However other duties addressed to all contracting States will remain binding. Cessation of Flag State status would not have implications for Switzerland's membership in UNCLOS, at the IMO, and at the UN. These conventions will continue to be binding on Switzerland. Switzerland will continue to have the right to participate in the legislative processes of these bodies.

In regard to political aspects, an abandonment of Flag State status will not affect Switzerland's memberships and participation in international bodies. Switzerland will be able to continue to represent its interests and foreign policy in these bodies. Switzerland's lack of a Flag State status will not be significant for swapping votes in elective positions. Still, closing the ship registry for merchant ships or even a complete abandonment of the Flag State status could send a problematic political signal. It might be perceived that Switzerland has benefitted substantially from the shipping sector and from seaborne trade. But that it is not willing to shoulder associated regulatory burdens that come with the shipping sector and seaborne trade sector.

In addition, the Flag State status of Switzerland with respect to Swiss-owned vessels undertaking philanthropic, humanitarian and cultural missions, has a relevance from the political perspective. These vessels are in essence ambassadors of Switzerland's foreign policy essentially focused on peace, security and rule of law. As for vessels in the marine scientific research and offshore economic activities or vessels in support of offshore economic activities, a Swiss Flag would be of relevance in Switzerland's foreign policy strategy areas of science diplomacy, prosperity and sustainability.

On the other hand, opening the register to non-Swiss nationals, and even extending it beyond the eligibility of EU/EFTA-citizens could have an impact on the reputation of the Swiss Flag State. Though not synonymous, the term "open registry" is sometimes used interchangeably with "Flags of Convenience." Switzerland can address this issue by ensuring that it is effectively exercising its duty as a Flag State over vessels flying its flag.

Assuming that, after many years of no effective Swiss shipping policy, policymakers can eventually decide and agree to establish an all-encompassing, internationally competitive shipping policy with the intent to strengthen the Swiss flag, this could eventually lead to the flagging-in into the Swiss registry again. Under these conditions, the upgrading of the technical requirements of vessels in the Swiss Registry could have a positive impact on the reputation of the Swiss Flag State and for Switzerland as a whole.

In regard to socio-cultural aspects, abandoning the merchant fleet could potentially create a feeling of lost sovereignty within the public. But, especially the abandonment of the overall Swiss flag would inevitably lead to a negative public image by abandoning the possibility to register small/pleasure crafts within the Swiss Flag and by that losing a part of "Swissness" (national pride).

A detailed tabular summary is provided in the annex.

### **10.2 Recommendations**

Under the current conditions with internationally uncompetitive framework conditions for shipping under the Swiss flag and the lack of an all-encompassing Swiss shipping policy, recommendations regarding the future direction of the Swiss flag and fleet at sea are difficult. The desolate state of the merchant fleet under the Swiss flag, brought about by fraudulent and mismanaged shipping companies, has been accompanied by losses of millions of francs for the Swiss Confederation and its citizens, and has thus led to a loss of reputation at national and international level. Political decision-makers have been unable to agree on a shipping policy for years, allowing the Swiss flag to slowly perish.

The planned, but at this point still hypothetical, introduction of a tonnage tax without a binding link to the Swiss flag, as promoted by the Swiss Shipowners Association or the STSA, would most likely lead to a significant improvement for the competitiveness of Swiss shipping companies and possibly other areas of the Swiss maritime economy, but could have only minimal impacts on the Swiss flag.

Although the importance of the flag state status is marginal for a landlocked country like Switzerland, it could be shown that the Swiss flag has its *raison d'être* in socio-cultural, but especially in political terms. First of all, the Swiss-flagged vessels undertaking philanthropic, humanitarian and cultural missions are in essence ambassadors of Switzerland's foreign policy essentially focused on peace, security and rule of law. In addition, the cessation of the Flag State status could send a problematic political signal. It might be perceived that Switzerland has benefitted substantially from the shipping sector and from seaborne trade, but is not willing to shoulder associated regulatory burdens that come with the shipping sector and seaborne trade sector.

For the aforementioned reasons, ISL is currently of the opinion that at least the register for yachts and small crafts under the Swiss flag should remain in existence and, due to political aspects, ideally also the register for merchant shipping. Due to the current limited competitiveness of the Swiss Register and the young age of the merchant fleet under the Swiss flag, a wait-and-see attitude, i.e. maintaining the status quo, would currently be an appropriate measure. Should there be significant changes in Swiss shipping policy in the short or medium term, which could lead to an increase in the flagging-in of ships under the Swiss flag, the introduction of the quality criteria described in scenario 3 should be considered in order to counteract a renewed slide in the Paris and Tokyo MoU lists at an early stage. Here, additional thought should be given to extending the nationality criteria to foreign interests.

During the examination of the current state and the possible future of the merchant fleet under the Swiss flag, it became apparent that there is currently no cross-stakeholder and all-encompassing discussion of a future shipping strategy for the Swiss Confederation at the political level. The current discussion is characterized by a fragmented discourse, with numerous studies on various segments of Swiss shipping policy commissioned by different organizations and associations. In order to develop a sustainably successful shipping strategy, ISL believes that a large-scale, cross-ministerial and cross-organizational study is necessary, with the involvement of the relevant associations and interest groups.

## Annex

Scenario 1: Continuation of the Status Quo		
Area	Impact	
<b>Size of Swiss-flagged merchant fleet</b>	Swiss flagged fleet and register would be maintained. This would allow a possible future Swiss shipping strategy related to merchant vessels to be implemented quickly. However, the strict nationality requirements would continue to limit the competitiveness of the Swiss flag even in such a case.	Uncompetitive fiscal regime without incentives leads to a further decline of the Swiss-flagged merchant fleet.
<b>Number of Swiss-flagged yachts and small crafts</b>	The Number of Swiss-flagged yachts and small crafts is deemed to stay stable	
<b>Economic aspects</b>	No direct effects on the Swiss-owned and operated fleet and thus no causal impact on the Swiss economy. The further decline of the Swiss-flagged merchant fleet is not expected to have noticeable impact on the overall economy.	
<b>Legal aspects</b>	There will be no direct consequences to national and international legal framework applicable to Switzerland as a Flag State and to its fleet of ships at sea. The scope of Switzerland's Flag State's duties will remain the same with respect to merchant vessels and other types of vessels in the Swiss Maritime Registry. These vessels will continue to be entitled diplomatic protection in case they are subjected to enforcement measures by coastal States and Port States.	
<b>Political aspects</b>	Maintaining the status quo will have no direct impact on Switzerland's political status in international bodies. Its participation at the UN, the IMO and in UNCLOS bodies will not be affected. Switzerland's representation of its political and economic interests in all of these bodies will continue.	
<b>Sociocultural aspects</b>	Continuation with a stagnant or slowly diminishing merchant fleet in combination with potentially necessary state-backed funding could create a negative image of the sector within the public.	

Scenario 2: Modernization and Opening of the Swiss Registry		
Area	Impact	
Size of Swiss-flagged merchant fleet	Swiss fleet and register would be maintained. This would allow a possible future Swiss shipping strategy related to merchant vessels to be implemented quickly.	Uncompetitive fiscal regime without incentives leads to a further decline of the Swiss-flagged merchant fleet. Opening of Swiss flag is not expected to attract a flagging-in.
Number of Swiss-flagged yachts and small crafts	The Number of Swiss-flagged yachts and small crafts is deemed to stay stable	
Economic aspects	No direct effects on the Swiss-owned and operated fleet and thus no causal impact on the Swiss economy. Cessation of the Swiss-flagged merchant fleet is not expected to have noticeable impact on the overall economy.	
Legal aspects	Opening the Swiss register to foreign-owned and controlled vessels would be within the sovereign discretion of Switzerland as a Flag State. Switzerland, as a Flag State, will meet the genuine link by exercising effective control and jurisdiction over the vessel flying its flag in accordance with Art. 94 of UNCLOS.	The opening of the Ship Registry to non-Swiss nationals will not alter the scope of Switzerland's Flag State duties to merchant vessels, yachts and coastal boats flying its flag. It will also not have any impact on Switzerland's right to participate in the legislative processes at the IMO, at the UN, and in UNCLOS bodies. Switzerland's ability to swap votes to win elective positions in organizations and bodies in the UN and in ocean related organizations will not be affected.
Political aspects	The opening of the Swiss Maritime Registry will not be an issue with respect to Switzerland's representation and participation in international bodies. Switzerland has the right to participate, including the right to vote and be elected to positions in these organizations. Its Flag State status does not have any bearing on this right of participation.	Opening it to non-Swiss nationals could have an impact on the reputation of the Swiss Flag State. Though not synonymous, the term "open registry" is sometimes used interchangeably with "Flags of Convenience." Switzerland can address this issue by ensuring that it is effectively exercising its duty as a Flag State over vessels flying its flag.
Sociocultural aspects	No direct implications for sociocultural aspects. No changes in the small and pleasure crafts regulatory regime.	

Scenario 3a: Modernization and Limitation			
Area	Impact		
<b>Size of Swiss-flagged merchant fleet</b>		Swiss fleet and register would be maintained. This would allow a possible future Swiss shipping strategy related to merchant vessels to be implemented quickly.	Uncompetitive fiscal regime without incentives leads to a further decline of the Swiss-flagged merchant fleet. Opening of Swiss flag is not expected to attract a flagging-in.
<b>Number of Swiss-flagged yachts and small crafts</b>		The Number of Swiss-flagged yachts and small crafts is deemed to stay stable	
<b>Economic aspects</b>		No direct effects on the Swiss-owned and operated fleet and thus no causal impact on the Swiss economy. Cessation of the Swiss-flagged merchant fleet is not expected to have noticeable impact on the overall economy.	
<b>Legal aspects</b>	Upgrading the technical requirements of vessels allowed to be registered in its Ship Registry is within the sovereign discretion of Switzerland under Art. 91 of UNCLOS.	There will be no direct consequences to the international legal framework applicable to Switzerland as a Flag State and to its fleet of ships at sea. The scope of Switzerland's Flag State's duties will remain the same with respect to merchant vessels and other types of vessels in the Swiss Maritime Registry. These vessels will continue to be entitled to diplomatic protection in case they are subjected to enforcement measures by coastal States and Port States.	
<b>Political aspects</b>	Upgrading the technical requirements of vessels in the Swiss Registry could have a positive impact on the reputation of the Swiss Flag State and for Switzerland as a whole.	As a member, Switzerland has the right to participate, including the right to vote and be elected to positions at the UN, the IMO and in UNCLOS bodies. Switzerland's reputation as a Flag State does not have any bearing on this right of participation but it could be a positive element. While not a crucial element, an improved reputation as a Flag State could also support Switzerland election campaigns. Switzerland is currently campaigning for a non-permanent seat at the UN Security Council for the 2023 election.	
<b>Sociocultural aspects</b>	Positive public image by modernizing the fleet towards environmentally and/or specialized vessels.	No changes in the small and pleasure crafts regulatory regime.	

## Future Prospects for the Swiss Flag and Fleet at Sea

Scenario 3b: Modernization and Specialisation			
Area	Impact		
<b>Size of Swiss-flagged merchant fleet</b>			Cessation of the Swiss-flagged merchant fleet
<b>Number of Swiss-flagged yachts and small crafts</b>		The Number of Swiss-flagged yachts and small crafts is deemed to stay stable	
<b>Economic aspects</b>		No direct effects on the Swiss-owned and operated fleet and thus no causal impact on the Swiss economy. Cessation of the Swiss-flagged merchant fleet is not expected to have noticeable impact on the overall economy.	
<b>Legal aspects</b>	Switzerland could also consider extending its Ship Registry to vessels undertaking activities in support of emerging offshore economic activities such as offshore renewable energy, deep-sea mining, and harvest of marine genetic resources.	Switzerland will continue to be considered a Flag State under UNCLOS. In general, IMO conventions will not apply to non-commercial vessels. However, some SOLAS provisions on safety of life at sea, MARPOL rules on the ship pollution prevention, and COLREG anti-collision rules, will apply to non-commercial ships. There will be no impact with respect to Switzerland's participation in the legislative processes in international bodies such as the IMO, UN General Assembly and UNCLOS bodies.	
<b>Political aspects</b>		Closing its Ship Registry from merchant shipping will not necessarily translate into a bad reputation for Switzerland in the international political arena. Switzerland's ability to swap votes to win elective positions in organizations and bodies in the UN and in ocean-related organizations will not be affected.	Closing the Ship Registry from merchant shipping could have some political implication. A Flag State status which includes merchant shipping is a political statement that Switzerland is committed to undertake regulatory responsibilities to ensure that the shipping sector and seaborne trade is safe, secure and a clean industry and the working conditions of seafarers accord with international law.
<b>Sociocultural aspects</b>		No changes in the small and pleasure crafts regulatory regime.	Abandoning the merchant fleet could potentially create a feeling of lost sovereignty within the public

Scenario 4: Abandonment of the Swiss Ship Registry and the Status as a Flag State		
Area	Impact	
<b>Size of Swiss-flagged merchant fleet</b>		Cessation of the Swiss-flagged merchant fleet
<b>Number of Swiss-flagged yachts and small crafts</b>		Cessation of the register for Swiss-flagged yachts and small crafts
<b>Economic aspects</b>		No direct effects on the Swiss-owned and operated fleet and thus no causal impact on the Swiss economy. Cessation of the Swiss-flagged merchant fleet is not expected to have noticeable impact on the overall economy.
<b>Legal aspects</b>		By abandoning its Flag State status, Switzerland does not lose its right or freedom of navigation and other freedoms of the high seas. Switzerland will cease to have obligations as a flag State but duties addressed to all contracting States will remain binding. This could include the duty to implement the IMDG Code under SOLAS and Switzerland's duty relating to recruitment and crewing agencies in its territory under the MLC.
<b>Political aspects</b>	An abandonment of its Flag State status would eliminate the risk of financial losses from diplomatic interventions.	The abandonment of Flag State status will not affect Switzerland's memberships and participation in international bodies. Switzerland will be able to continue to represent its interests and foreign policy in these bodies. Switzerland's lack of a Flag State status will not be significant for swapping votes in elective positions.  Cessation of Flag State status could send a problematic political signal. It might be perceived that Switzerland has benefitted substantially from the shipping sector and from seaborne trade, but is not willing to shoulder associated regulatory burdens that come with the shipping sector and seaborne trade sector.  The Flag State status with respect to vessels undertaking philanthropic, humanitarian and cultural missions, has a relevance from the political perspective. These vessels are ambassadors of Switzerland's foreign policy on peace, security and rule of law.
<b>Sociocultural aspects</b>		Negative public image by abandoning the possibility to register small / pleasure crafts within the Swiss Flag. Loss of "swissness" (national pride)



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