



Establishing an institutional conceptual framework for effective delivery of the United Nations SDGs: an application of grounded theory to assist IMO stakeholders

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Abstract

This paper builds upon the empirical findings of the research work that was conducted to identify the issues and challenges which the stakeholders at the International Maritime Organization (IMO) are facing when implementing the United Nation's 2030 Agenda for sustainable development and the sustainable development goals (SDGs) in the international maritime transport domain (<https://doi.org/10.1007/s13437-018-0147-2>). The first paper, which outlined the findings, introduced grounded theory as the research methodology that was used, explained the research and analytical process undertaken, presented the key findings, and put forward six propositions based on empirical data gathered from 47 interviews. The present paper examines the IMO stakeholders' stance toward a more strategic SDG-related action and a governance approach within IMO. It provides an assessment of the extent to which the representatives attending IMO meetings believe in the importance of strategizing towards attaining sustainable development and the SDGs. The paper outlines the key constructs, which emerged as a result of the gaps that were identified, and proposes an institutional conceptual framework that can be adopted by IMO as a structure to mitigate the severity of the issues identified by this research, thereby facilitating the effective implementation of the SDGs by IMO and its stakeholders. The institutional conceptual framework, as one of the major outcomes of this study, brings together the most critical elements that were found to be important and need to be implemented so that issues that this study has identified can be addressed, and the implementation of the 2030 Agenda and the SDGs within the international maritime transport domain can be accelerated and mainstreamed.

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1 Introduction

Since the 2030 Agenda is primarily based on sustainable development, the international maritime stakeholders within the International Maritime Organization (IMO) would need to identify the activities to be undertaken to achieve a sustainable maritime transportation system by way of identifying the actions and outcomes needed by the relevant bodies and the various maritime stakeholders. It is essential for nation States to cooperate in a proactive way to deliver on the 2030 Agenda. The United Nations Development System (UNDS) brings together the activities of around 30 agencies, such as the IMO as a specialized agency of the United Nations (UN). To enable the UN development system to be more coherent and effectively guided and supported in the implementation of the 2030 Agenda for sustainable development, on 21 December 2016, the UN General Assembly adopted a landmark resolution on the Quadrennial Comprehensive Policy Review (QCPR) of operational activities for the development of the United Nations system (UN 2017c). Through the QCPR, Member States emphasized the importance of and the urgent need for positioning the United Nations development system to be able to effectively address the wide spectrum of development challenges, and to better support the implementation of the 2030 Agenda. To this end, the Member States have instructed the UN entities forming part of the UN development system, such as IMO, to align its functions and capacities with the 2030 Agenda, in order to be “more strategic, accountable, transparent, collaborative, efficient, effective, and results-oriented” (UN 2017, p.5).

In an attempt to assess the system’s present functions and capacities to support the 2030 Agenda, the Secretary-General of the UN did not mince his words about the UN’s current state of play. In his first report on the repositioning of the United Nations development system (“Repositioning the United Nations Development System to Deliver on the 2030 Agenda: Ensuring a Better Future for All”), he explained how the existing UN model had failed to provide the means for the effective delivery required by the 2030 Agenda (UN 2017b). The Secretary-General of the UN also insisted on the importance of mainstreaming the three dimensions of sustainable development throughout the United Nations system by highlighting the importance of breaking down silos to enhance coordination across sectors, both within and among organizations (UN 2017c). The need for restructuring the UN’s management practices was further highlighted by another report of the Secretary-General of the UN (“Shifting the Management Paradigm in the United Nations: Implementing a New Management Architecture for Improved Effectiveness and Strengthened Accountability”) (UN 2018). Considering the number of challenges and issues that the UN system is facing in delivering on the 2030 Agenda, it is indeed also a challenge for IMO as a UN system body to step up its work, thereby delivering more effectively on the 2030 Agenda and being one of the first organizations within the UN system bodies to reposition itself, as requested by the UN Secretary-General. The important role that IMO has in the achievement of the 2030 Agenda and the SDGs and how the international shipping and the maritime community contribute to sustainable development in relation to SDGs

are highlighted by a brochure, which the IMO Secretariat published (IMO 2017c). During the period that the field work was being conducted, discussions on how IMO could contribute towards the fulfilment of the SDGs had started only within one of its organs—the Technical Cooperation Committee (TC).

As reported in one of the TC documents, in respect of the implementation of the 2030 Agenda and the SDGs, in 2017, IMO was 2 years behind other United Nations system bodies (IMO 2017d). It is worthwhile to mention a notable report entitled “Evaluation of the IMO’s Contribution to the Achievement of the Millennium Development Goals (MDGs),” which was presented during the 68th session of the TC held in June 2018 (IMO 2018a). The report, which was prepared by a consultant for the Internal Oversight and Ethics Office of IMO, also dealt with how IMO is addressing the SDGs. More specifically, it states that, “as noted by senior managers in the Secretariat, the delay in starting with the MDGs is now being repeated with the SDGs” (IMO 2018b, p.18). This certainly does not augur well as to how IMO handled the SDGs soon after the 2030 Agenda officially came into force. It seems that the IMO stakeholders had a slow-paced approach towards implementing the SDGs within the work of IMO. As a matter of fact, with respect to monitoring and evaluation, the report says: “In particular, it is not clear whether and when baselines will be defined for key indicators, interim milestones identified, and targets set that are capable of being measured and attributed to the IMO. Without this basic infrastructure it seems likely that the IMO will continue to adopt a *de minimis* approach to the SDGs” (IMO 2018b, p.18). Tellingly, this statement clearly sends out a stark message to all stakeholders within IMO to step up their approach towards the implementation of the SDGs and rise to the occasion by way of changing the way IMO is addressing the SDGs, as otherwise very little is expected to be achieved in respect of the 2030 Agenda. From the outset, the study had established that within the IMO context, the IMO stakeholders must be wholly engaged and coherent, and must adopt an integrated approach by coming up with sound proposals on sustainable development and on the SDGs—an important step that has not yet materialized within the five main organs of IMO. Indeed, the research work revealed that SDG-related work was being conducted only within the TC.

Nonetheless, it is worth noting the sterling work the IMO Secretariat is doing directly within the context of the 2030 Agenda through a resident agenda item under the TC, and the support the IMO Secretariat is providing to Member States in developing their National Maritime Transport Policies (NMTPs) by means of the development of a maritime transport policy training package and the provision of training sessions (IMO 2018c). Similar support is also being provided by the IMO Secretariat to Member States on aspects related to Country Maritime Profiles (CMPs). The IMO Secretariat is also encouraging Member States to fully participate in their national or regional United Nations Development Assistance Framework (UNDAF) processes since this would ensure that maritime issues are at the forefront in the country-wide implementation of the SDGs (IMO 2018c). The TC is now in the process of establishing indicators related to technical cooperation. To this end, a correspondence group was established to work on this matter and so far good progress has been registered (IMO 2018a). The TC is serving as a shining example for the other four IMO Committees of how the TC, as an IMO organ, is tackling the SDGs that are considered to be relevant to its remit. As highlighted by the IMO Secretariat in its paper to the 68th session of the TC, the process of establishing SDG-related indicators should start as

soon as possible if IMO “[d]oes want to be involved with SDG indicators, either via its own indicators or through contributions to the global indicators, that process should begin very soon, so as to meet the next indicator review scheduled for 2020” (IMO 2018a, p.4). A decision, therefore, needs to be taken by the other four IMO Committees on their level of involvement in developing potential SDG indicators within their domain, which must be actionable in support of the 2030 Agenda. More recently, in order to raise more awareness of the 2030 Agenda, the IMO Secretariat and the United Nations System Staff College (UNSSC) Knowledge Centre for Sustainable Development held a seminar at IMO on the 2030 Agenda, entitled “Executive Briefing on the 2030 Agenda for IMO Member State Representatives and Other Stakeholders” on the 11th of January 2019, during which, among other topics, IMO’s narrative and potential contributions to the implementation of the 2030 Agenda were examined (IMO 2019). In addressing one of the recommendations of the seminar, the IMO Secretariat developed a strategy to improve its approach to support Member States in the implementation of the 2030 Agenda (2019b). During 2020, more awareness is expected to be raised on the SDGs by IMO and its stakeholders, particularly because the World Maritime theme for 2020 is—“Sustainable shipping for a sustainable planet” (2019c).

The importance of shipping to support and sustain today’s global society gives IMO’s work a certain degree of significance that transcends the industry itself. The attainment of any sustainable development program, including the three dimensions of sustainable development (social, economic, and environmental) is known to be inherently complex, particularly across horizontal and vertical boundaries in policy-making processes. Member States would like to see more coordination, coherence, effectiveness, and efficiency in the operational activities for development within and among all levels of the UNDS. The Secretary-General of the UN is fully committed to repositioning the UNDS to deliver on the 2030 Agenda by becoming more structured and less fragmented to support the achievement of the SDGs and the 2030 Agenda. Similarly, the IMO, as part of the UNDS, must be effective through its stakeholders in contributing tangibly towards the implementation of the SDGs in the international maritime transport domain as shipping plays a key role in the world economy.

Since studies of this nature within the context of IMO are very scarce, this paper seeks to provide valuable contribution to the current academic literature and knowledge on sustainable development. This paper further expands on the research work that Sciberras and Silva (2018) conducted at IMO, using a grounded theory approach. It aims to propose an institutional conceptual framework, which could be adopted by IMO to deliver the SDGs in the maritime transport domain. The paper further aims to assist IMO and its stakeholders to step up their work towards attaining the SDGs in an effective and coherent manner, thus aligning with the UN’s Secretary-General’s call to organizations of the United Nations development system to mainstream the SDGs in their strategic working activities at all levels.

The prime objective of this paper is to reveal latent patterns among IMO stakeholders and to put together all the pieces to create a better understanding of how challenges in relation to the implementation of the 2030 Agenda and the SDGs in the maritime transport domain can be best addressed in practical terms. These insights are valuable for the stakeholders at IMO in preparing the necessary groundwork for a sustainability course within IMO and at national level, to effectively implement the SDGs. If well engaged, IMO stakeholders can be the frontrunners in contributing

towards achieving sustainable development on a global level. This can be achieved by mainstreaming the SDGs through the work of IMO and by successfully integrating the economic, social, cultural, and environmental dimensions of sustainable development of vital importance in the struggle to eradicate poverty and promote prosperity on a global scale through the maritime transport domain.

This paper is structured in two parts. The first part, which comprises Sections 1 and 2, provides the background to the research, introduces the aims and objectives of the paper, and explains the methodological model applied. Subsequently, the second part, (Sections 3, 4, 5, and 6), assesses the IMO stakeholders' stance towards a more strategic SDG-related action within IMO and determines the extent to which the stakeholders attending IMO believe in the importance of strategizing towards attaining the SDGs by presenting the resultant matrix. An institutional conceptual framework, which integrates the propositions put forward by Sciberras and Silva (2018) into a Stakeholder-IMO Dimensional Model is then presented. The paper explains how such a model can be further considered and put into practice through an extended institutional conceptual framework adapted for IMO¹. The paper also identifies the implications to the IMO stakeholders and the IMO Secretariat, which must be taken into consideration; the limitations of this research study; and recommendations for future research.

2 Research methodology

2.1 Grounded theory

As further elaborated by Sciberras and Silva (2018), this research used grounded theory as research methodology. Grounded theory permits the use of all types of data during the course of the research and provides rich insights into organizational behavior, which in turn allows for the construction of reality grounded in data (Flick 2009). Moreover, as Holton and Walsh explains, "Grounded theory offers a transcending view of a main concern in substantive area and the social behavior that explains how that concern is processed, managed, or resolved" (Holton and Walsh 2016, p.10). As this study focused on a particular substantive area of interest to the researchers, namely the international maritime transport domain within the context of IMO, the approach adopted by the researchers in this research aligns with the form of grounded theory advocated by Glaser and Strauss (1967). A constructivist approach was adopted to assist the researchers' reflexivity to better understand the phenomena under scrutiny (Charmaz 2006). Using the constructivist approach, the researchers were able to theorize in the interpretive tradition based on their working experience in international affairs, particularly in maritime and shipping policy-related matters². By virtue of their experience, the researchers were alert and highly sensitive to numerous conditions under which differences and distinctions may arise through the rich data that was gathered. This approach to grounded theory method linked the concepts of abduction and reflexivity, and gave the grounded theory its rigour through the emergence of

¹ Both frameworks have been validated with interviewees as part of the research process. This is in line with Birks and Mills' (2017) view on applying grounded theory research.

² One of the authors has over 20 years of experience of active participation in meetings at IMO in London and at other UN bodies within the international fora dealing with international maritime policy matters.

theory from empirical data. Such data was gathered from participants, who have experienced the process at first hand at IMO and who have explained the practice in the substantive area of study directly to the researchers.

2.2 Data issues

As indicated by Sciberras and Silva (2018), almost all 47 face-to-face interviews were conducted at IMO headquarters in London during several field work sessions undertaken specifically for this research. The research work was conducted over a period of 15 months following a grounded theory research cycle. The category schema that was developed was transposed into the conditional/consequential matrix, known as the “Conditional and Consequential Matrix” (Strauss and Corbin 1998, 2008), which consisted of three main features: contextual conditions, actions and reactions, and consequences and outcome. The matrix enabled the researchers to determine the context that had a bearing on the situation and circumstances under study, the actions and the interaction that took place to attain the desired outcomes, and the consequences that followed the actions taken (Sciberras and Silva 2018). This provided the higher level of analytic meaning, which in most cases was generated through descriptive or process coding (Miles et al. 2014). The MAX Qualitative Data Analysis (MAXQDA 18 Analytics Pro)³ was used for data management, storage, and analysis. MAXQDA provided an ideal opportunity to gauge the coding intensity on particular constructs. In order to enable the researchers to better organize the interviewing process, the representatives attending IMO meetings were classified in three groups of Agents.

- First-order Agents: Member States elected to the IMO Council. This is a very important structure and organ within IMO. 40 Member States in total are classified under three categories, some of which are the main financial contributors to IMO’s budget;
- Second-order Agents: Member States that did not form part of the IMO Council; and
- Third-order Agents: intergovernmental organizations (IGOs) and the non-government organizations (NGOs), which lobby for the Member States for the region, entity, or the cause they represent. Interviews conducted with representatives from a UN specialized agency were also considered to fall under this category.

Interviews were the researchers’ preferred method for gathering empirical data directly from the field and for illustrating findings in support of the developed grounded theory based on simultaneous collection and analysis of data. The researchers conducted face-to-face, semi-structured, open-ended, and in-depth conversational interviews. Except for a small number of interviews, almost all the interviews were digitally recorded using a high-quality digital recorder. The digitally taped recordings were transcribed, and the transcribed text generated more than 170,000 words of transcribed data. The interview prompt list and guidelines used during the interviews are presented as an [Appendix](#) to this paper.

³ <http://www.maxqda.com>

3 Data analysis and discussion

3.1 The key findings

The findings under the conditional and consequential matrix helped the researchers compare data and acquire a deeper understanding of the categories and their complexities that emerged under each component, particularly in respect of the importance of strategy and governance for sustainable development. Additionally, the analysis of the findings of each component of the matrix identified some of the important conditions that may influence the input of Member States at IMO towards a cohesive SDG-related IMO strategic plan and consequently the outcome. Of significant importance for the scope of the study is the extent to which the Agents attending IMO believe in the importance of governance and of strategizing towards attaining the SDGs. Governance and strategy within the context of the 2030 Agenda and the SDGs were deemed significantly important elements during the study and were viewed within the context of the IMO strategic plan⁴. The following sub-sections focus on the underlying factors of the key findings in relation to the importance of governance and strategy on sustainable development from the Agents' point of view.

3.2 Agents' engagement towards a strategic SDG-related action and a governance approach

It is evidently clear that both political and policy incoherence and lack of coordination faced by stakeholders at national level have affected how the stakeholders attending IMO meetings undertake action, i.e. the level of intensity of their engagement. On SDGs, they were found to be uncommitted during the period of this research work. The findings suggest that there is a weak SDG governance structure within IMO to trigger action-interaction on the 2030 Agenda within IMO's five main Committees. This shortcoming has resulted in an outcome that had adverse consequences, i.e. lack of alignment of IMO strategic plan's corresponding strategic directions and outputs with the SDGs and the paucity of concrete SDG-related outputs (Sciberras and Silva 2018). This has put IMO behind other UN bodies in the implementation of the 2030 Agenda as highlighted by the IMO Secretariat (IMO 2017d).

The study found that due to political and policy incoherence (conditions) at national level, on the implementation of the SDGs, IMO ended up lagging behind (consequence) from an IMO strategic plan point of view, IMO was not yet prepared to work on the 2030 Agenda, thus limiting its efforts to work on the SDGs. Now that the IMO's vision statement refers to the 2030 Agenda, the condition for IMO to work on the 2030 Agenda (the latter as the context) is clearly set. Therefore, in this respect, the research concludes that there is a possibility that a chain of actions and reactions can be triggered at IMO on the SDGs. This may result in discussions to facilitate progress towards the development of concrete SDG-related outcomes through IMO's strategic plan outputs, which in turn generate positive consequences on sustainable development

⁴ The strategic plan is the IMO's strategic platform by virtue of which any desired SDG outcome is to be attained and any trade-offs with the environmental, societal and economic dimensions of sustainable development are to be made.

in the maritime transport domain. The findings of this research suggest, however, that this would require changes to address the gaps that were found to exist within the IMO organs to ensure that the stakeholders are properly engaged to deliver on the 2030 Agenda. The analysis of the data underscores the importance of putting in place a strategy for sustainable devolvement flanked by a sound governance framework within IMO. Using the MAXQDA Code Matrix Browser for analyzing the different areas of high coding intensity, the researchers studied in detail the findings under the three components of the matrix of each interviewee. The MAXQDA Text Retrieved Segments provided the possibility for reviewing the transcribed text of each interviewee to be analyzed in detail. This rigorous process provided the means for the researchers to understand the Agents' behaviors and the current situation they were in, and shed light on the necessary elements for outlining through a diagram their present readiness to contribute to a more concrete SDG strategic action at IMO. Figure 1 presents the Code Matrix Browser showing the coding density of all the interviewees for the two properties namely Putting an IMO Sustainable Development Strategy in Place and Governance Structure—Steering Mechanism under sub-category Bridging the Gap of category IMO of the Contextual Conditions component of the matrix. It confirms the need for putting into effect an IMO sustainable development strategy and a governance structure to serve as a steering mechanism in the course of implementing the 2030 Agenda and the SDGs.

In the absence of a sustainable development strategy and of a governance structure within the context of the 2030 Agenda at IMO, the study found that the stakeholders had ended up in a locked-in state, unable to contribute on the SDGs; this has affected the intensity of their level of participation, as shown in Fig. 2. The resulting coding segment indicates that the properties of this sub-category suggest that all the IMO stakeholders who were interviewed experienced issues in relation to governance, which to some extent are rendering them ineffective in initiating action. Therefore, these issues need be addressed at IMO by improving the governance structure to reduce the gap that exists.

3.3 Understanding the latent pattern of the Agent's behavior

Through the relationships of Figs. 1 and 2, it was possible to discern a latent pattern of the Agent's behavior, which sheds light on their drive towards working for a more SDG strategic approach at IMO. This helped the researchers to be congruent with Corbin and Strauss (2015, p.374), who emphasize that according to grounded theory, the “unit of analysis is the concept,” and through the variables (sub-categories, properties, and dimensions), the researchers could identify variations in data to establish where the Agents stand in their present drive towards a more strategic approach at IMO. This can be best illustrated in Fig. 3, which depicts the present state of the interviewees' stance

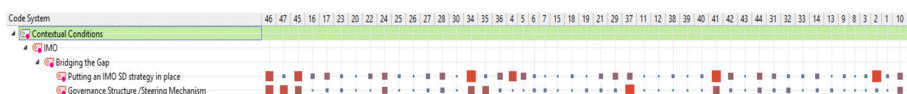


Fig. 1 Code Matrix Browser—resultant coding intensity for putting an IMO sustainable development strategy in place and governance structure—steering mechanism

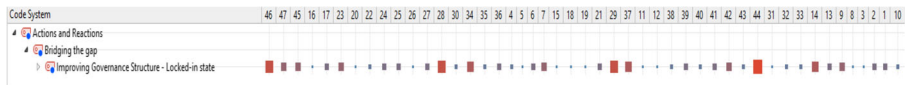


Fig. 2 Code Matrix Browser—resultant coding intensity for improving governance structure—locked-in state

toward a more strategic action, taking into account their views on how effectively the present governance structure (y -axis) and the current strategic framework are supporting sustainable development (x -axis). As per Fig. 3, the findings suggest that the pattern of behavior of the Agents follows a cyclic process which puts the IMO stakeholders in a locked-in state, unable to contribute on the 2030 Agenda in an effective manner by integrating the SDGs into IMO's work. This was mainly attributed to lack of knowledge and visibility of SDGs at national level, often due to issues related to political and policy incoherence between government ministries and departments, and also due to a lack of expertise. This locked-in state stems from the ineffectiveness of the present SDG governance structure within IMO and also the low level of drive and commitment to establishing a strategic framework for sustainable development displayed by IMO stakeholders. As a result of this state, IMO stakeholders were unprepared and unable to contribute effectively at IMO to devise concrete SDG-related strategic directions by way of integrating sustainability considerations and SDG outputs under the IMO strategic plan.

Due to these circumstances, the IMO Secretariat, without the contribution of Member States and their agreement, was not in a position to consider explicitly how sustainability can be woven into equitable SDG measures to achieve sustainable development—the essence of the 2030 Agenda, through the IMO strategic plan by means of SDG-based outputs. The resulting impact of this pattern was that representatives of Member States found themselves unable to contribute effectively towards the implementation of the 2030 Agenda and the SDGs. As a consequence of this inaction, they could not expedite the process at IMO to put in place a robust framework for the effective implementation of the 2030 Agenda and the SDGs. This happened at a time when the strategic plan of IMO was being reviewed during the period 2016–2017. Consequently, an ideal opportunity to mainstream the SDGs in all the seven IMO strategic directions and to introduce specific SDG outputs in 2018–2019 biennium of the strategic plan of IMO for the 6-year period 2018–2023 was missed⁵. Only the vision statement, the overarching principles, and two outputs of the IMO strategic plan were reviewed to include references to the SDGs. This level of inactivity in seeing how international and national shipping can contribute towards meeting the SDGs in concrete terms, thus accelerating SDG progress at IMO, was a widespread phenomenon, which impacted on the contribution of the interviewees. As a consequence, their level of engagement on the 2030 Agenda and the SDGs at IMO during the period that the research work was being conducted was minimal with scant active participation as they lacked the knowledge of and policy direction on the SDGs. Although this combination manifested itself in a cyclic movement, the Agents have evinced a strong

⁵ On a level of the IMO's strategic plan, the list of outputs for the 2018–2019 Biennium of the strategic plan of IMO for the six-year period 2018–2023 contained only two outputs related to SDGs listed under two Strategic Directions out of a total of seven Strategic Directions (IMO 2017b).

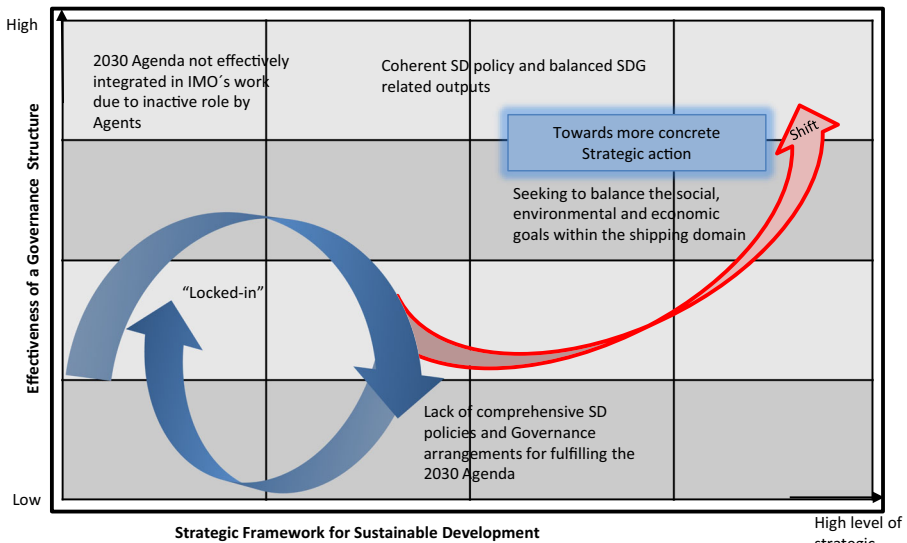


Fig. 3 Agents' present state towards contributing for a more SDG concrete strategic action (source: self-designed)

desire to break the cycle they are currently in and move forward towards a more SDG strategic orientation through concrete action for tangible SDG-related outcomes at IMO. The analysis of the data unequivocally establishes that all the 47 IMO interviewed stakeholders indicated:

- A positive stance towards a strategized approach on SDGs at IMO to move away from the locked-in state they are in, as a result of an ineffective governance structure; and
- Willingness to bridge the gap that exists in terms of strategy on Agenda 2030 and the SDGs by establishing a sustainable development strategy within IMO's strategic plan.

The study established that the sustainable development strategy should incorporate as a framework the following elements: IMO SDG indicators; SDG-oriented strategic directions with corresponding outputs, and performance indicators. These elements should pave the way for an IMO-driven sustainable development policy in relation to shipping on a global scale.

3.4 Resultant Agents' matrix—a need for a strategic framework for sustainable development

The key findings indicate the importance of establishing a strategic framework for sustainable development within the IMO's strategic plan, supported by an effective governance structure, which were both found to be relatively important among the three types of Agents who were interviewed. Following the same approach that was used to determine the Agents' present state towards contributing to a more SDG-concrete strategic action, as shown in Fig. 3, it was possible to determine the response of the

Agents to the need for a strategic framework for sustainable development at IMO. This process was conducted for each group of Agents by using the MAXQDA Code Matrix Browser and the MAXQDA Text Retrieved Segments, which provided the means for rigorously reviewing the transcribed text of each interviewee of each Agent group. This offered a clear way of visualizing the intensity of coding for each type of Agent group. Through this process, the researchers were able to gauge the Agents’ position vis-à-vis the need for a strategic framework for sustainable development at IMO by sketching a resultant Agents’ matrix.

This Agents’ matrix can be best demonstrated through Fig. 4, which shows how the three tiers of Agents who were interviewed namely, the First-order Agents (FOAs), the Second-order Agents (SOAs), and the Third-order Agents (TOAs) were found to be in terms of their drive in shifting from the current state of affairs—the “locked-in state”—to a more strategized approach within IMO. The resultant Agent’s matrix shows that the three types of Agents are on the same trajectory of wishing to unlock from the current passive state of affairs—that of being inactive on SDGs at IMO in most of the IMO Committees—and move towards a more concrete SDG strategic action, which will provide the necessary means for putting in place coherent policies for sustainable development at IMO. Such a strategic action can also provide the means for balancing the economic, social, and environmental dimensions of sustainability within IMO’s work. The findings also suggest that through such SDG strategic action within the context of IMO work, these Agents, especially the representatives of Member States (FOAs and SOAs) can be in a better position to give SDGs a national profile and status by incorporating the SDGs in national strategic development polices and plans within the maritime transport domain. As shown in Fig. 4, among the three groups of Agents, the FOAs were found to be in possession of the highest

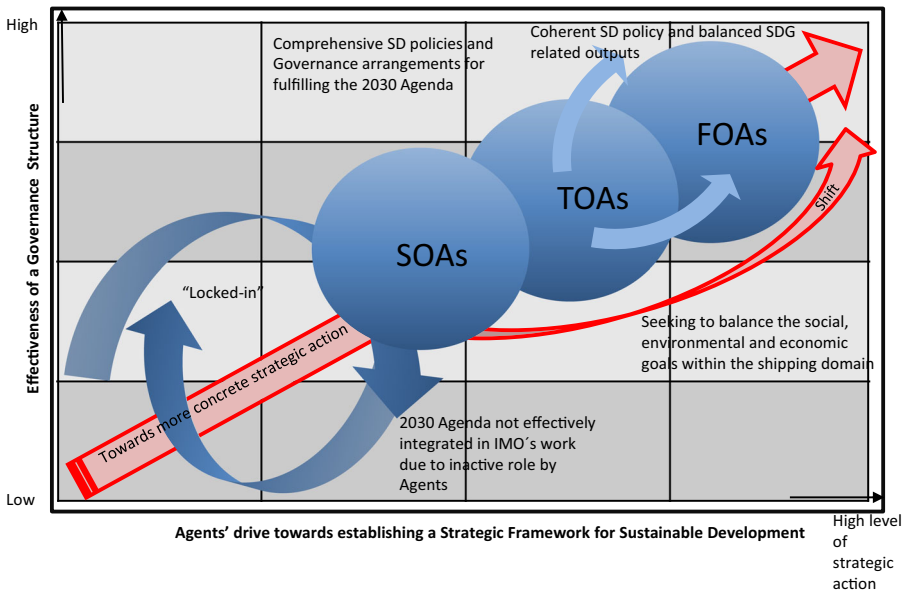


Fig. 4 The Agents’ drive towards establishing a strategic framework for sustainable development through an effective governance structure (source: self-designed)

inclination towards establishing a strategic framework for sustainable development with a strong governance structure in place.

The FOAs were followed by TOAs who, despite not being Member States, can play an important role in creating and coordinating a common front between the FOAs and the SOAs, (the latter were found to be trailing behind the TOAs), in unleashing the transformative process that IMO needs to undergo to effectively address the SDGs through its strategic plan. Although they lack the visibility of the FOAs largely because they do not form part of the IMO Council and therefore may have limited knowledge of the IMO strategic plan, SOAs were also found to be ready to improve on the IMO's strategic approach towards sustainable development, thus moving away from the locked-in stage. The need for a strategic framework for sustainable development can also be demonstrated through the resulting coding segments of each Agent group using the Code Matrix Browser. Figure 5 shows the Code Matrix Browser with the resulting coding intensity of FOAs for the property establishing a sustainable development strategy and its three dimensions under sub-category At IMO level, of category Bridging the Gap of the consequences and outcome component for all the 21 interviewees classified as First-order Agents.

As is evident in Fig. 5, FOAs' understanding of the importance of the elements of IMO's strategic plan and their relevance to sustainable development is very visible through the intensity of the coding of the three dimensions, as the red ellipse shows. This strongly indicates that there is a need for establishing a strategy on sustainable development. This also implies that the FOAs are well versed in the IMO's strategic plan as they regularly deal with matters related to it at the IMO Council. FOAs were found to be keen on balancing the social, environmental, and economic goals within the shipping domain through a coherent approach on sustainable development and SDG-related outputs under the IMO strategic plan.

SOAs were found to have less drive towards having a more SDG-related strategic action at IMO when compared to the FOAs. The findings suggest that this can be attributed to less supportive elements among their national administrations on policy direction due to poor inter- and cross-sectoral ministerial coordination, and a lamentable lack of clear political commitment in shipping-related matters, which makes them less active at IMO, particularly on matters related to the strategic direction of IMO. The SOAs were found to want to move out of the current locked-in state in order to promote sustained and inclusive economic growth, social development, and marine environmental protection within the maritime transport domain, a state of affairs that is akin to FOAs' present mind set. Contrary to FOAs, SOAs are not elected to the IMO Council and are not actively involved in the development of the strategic plan at the Council. Therefore, SOAs are not quite familiar with the elements of the IMO strategic plan.

Notwithstanding this, SOAs showed eagerness to see a strategy on sustainable development being established at IMO.

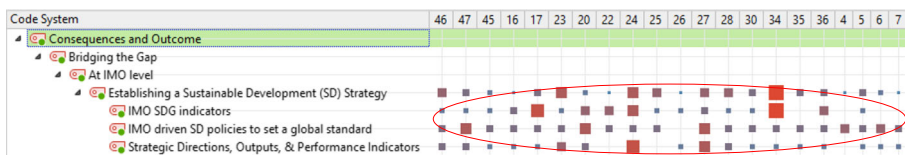


Fig. 5 Code Matrix Browser—resultant coding intensity for property establishing a sustainable development strategy for FOA

As shown in Fig. 4, TOAs, in general, were found to have a reasonable level of drive towards having a more SDG-related strategic action at IMO, superior to SOAs but falling short of FOAs, with the industry trade associations giving more importance to the economic dimension of sustainable development, but who may be at times less active on environmental policy issues such as climate policy (long-term greenhouse gases, energy efficiency regulations, and carbon pricing policies). Of considerable importance is the role that the TOAs play and the level of drive they displayed, which was found to be crucial in bridging and aligning the SOAs with FOAs, particularly when seeking the approval of IMO's work program at the IMO Assembly, the highest governing body of the IMO, as the SOAs and the FOAs are permitted to vote unlike the TOAs. TOAs only have observer status but enjoy a consultative status (NGOs) and may have agreements of cooperation on common interest with IMO (IGOs). TOAs, particularly industry trade associations representing shipping⁶ and intergovernmental bodies representing Member States at regional level, were found to be quite influential at IMO. The reason is that they lobby strongly during policy making processes, often by contributing directly in meetings, and by supporting Member States through the co-sponsoring of policy paper submissions or also by forming part of their delegations due to Member States' lack of expertise.

TOAs also displayed a considerable understanding of some of the elements of IMO's strategic plan, which are deemed important when undertaking strategy making for creating policy coherency among the different IMO organs. TOAs have the potential to assist Member States in the implementation of the SDGs either at national or regional level as they are often asked to advise Member States on matters on which they do not have sufficient competence. TOAs were found to play an important role in debates at IMO on many topics and have the potential to be active on matters related to the implementation of the 2030 Agenda and the SDGs. They can influence the process by which the Member States agree on how to include the SDGs within the IMO strategic plan. They were also found to have the potential to be frontrunners in providing specific advice on sustainable development objectives or SDG-related outputs when implementing the 2030 Agenda, particularly the IGOs representing regional areas. The findings also indicate that TOAs are well established within IMO and respected by Member States. They have the potential to support, encourage, and mobilize SOAs, thus bringing them more closely aligned with FOAs for better policy coherence on the implementation of the SDGs, and the SDGs' strategic orientation IMO should adopt. Therefore, TOAs can play a significant role in directing SOAs along the trajectory spearheaded by FOAs towards sustainability to secure the effective implementation of the 2030 Agenda and the SDGs.

3.5 Laying down the key foundations

Drawing directly from the results of "Bridging the Gap" and its constructs under the contextual conditions as shown in Fig. 6 for all the interviewees, using the Code Matrix Browser, it is evidently clear that, for conditions to be right within the context of IMO, a strategy on sustainable development has to be put in place, and this strategy must be

⁶ In some cases, Member States with open registers are represented at IMO by private companies operating their ship register, thus being able to exert a strong influence on the development of maritime law.

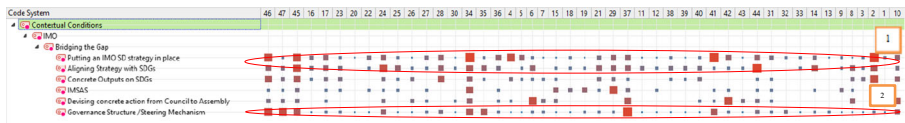


Fig. 6 Code Matrix Browser—bridging the gap and its constructs under the contextual conditions component of the matrix

aligned with the SDGs and would be expected to deliver concrete SDG outputs. This is illustrated by ellipse 1.

It can be noted that from the contextual conditions' perspective, the need for a governance structure and a steering mechanism was already being felt as shown by ellipse 2. Such a need was rendered more evident through the intensity and consistency of the coding under the actions and reactions component of the matrix, as Fig. 7 shows for all the interviewees. The first ellipse in Fig. 7 shows how important it is to have an articulated and integrated governance structure that provides the means for the realization of the SDGs, thus triggering action within IMO. Complemented by the need to have a strategic actor/coordinator at Member State level, a sound governance structure increases policy coherence, the efficiency and effectiveness of stakeholders for improved actions, and desirable outcomes at IMO. Such a need is demonstrated by ellipse 2.

Based on the in-depth analysis of these constructs, and further elaborating on the propositions put forward by Sciberras and Silva (2018), the analysis of the findings concludes that there is a need for laying down the following key foundations to effectively fulfil IMO's vision statement on the 2030 Agenda by:

- Establishing a sustainable development strategy that mainstreams the SDGs into IMO strategic plan, and which incorporates an SDG action plan that identifies and fills existing gaps;
- Strengthening the IMO strategic plan and its associated elements with concrete reference to SDGs, including in the Strategic Directions and through the creation of SDG-related indicators and outputs;
- Having a governance framework in place that reinforces the IMO's institutional framework for attaining the SDGs, and which creates an enabling environment for a

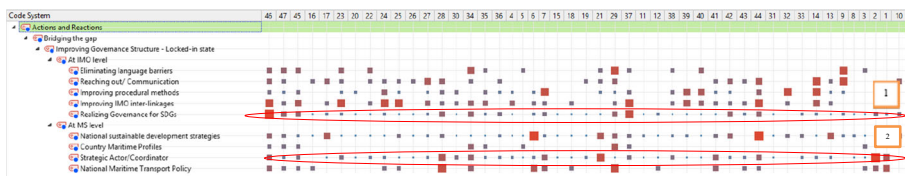


Fig. 7 Code Matrix Browser—bridging the gap and its constructs under the actions and reactions component of the matrix

coherent and integrated approach towards the implementation of the 2030 Agenda by the main IMO organs;

- Incorporating the SDGs into the work of all IMO's main Committees to fill gaps in relation to SDGs;
- Having IMO assuming the leadership on SDGs through a dedicated Task Force seeking primarily to ensure governance on sustainable development for SDG policy coordination and oversight of the IMO SDG-related activities in close collaboration with all interested IMO stakeholders—the Agents; and
- Securing the support of a strategic actor on SDGs at national level, which in turn will actively contribute within the Task Force to narrow the gaps on SDGs.

4 Stakeholder-IMO dimensional model

Based on empirical findings, the preceding section presented the key foundations that must be laid down to effectively fulfil IMO's vision statement on the 2030 Agenda. Drawing from the analysis made by the researchers, and in line with the objective of this paper, this section presents an integrated Stakeholder-IMO Dimensional Model, which takes the form of an institutional conceptual framework. It can be adopted by IMO to mitigate the shortcomings identified by this research when tackling and implementing the key foundations mentioned further above. The institutional conceptual framework aims to facilitate the implementation of the SDGs by IMO and its stakeholders and provides the means for IMO to be in a better position to deliver the desired level of action in relation to the 2030 Agenda. Furthermore, it aims to provide the platform sorely needed by the IMO stakeholders to be more proactive towards attaining the 2030 Agenda and the SDGs through concrete SDG outputs by addressing sustainability gaps in the work of IMO within its five Committees. Consequently, the institutional conceptual framework can promote more SDG-related action within the work activities of IMO and at national level. As explained by Sciberras and Silva (2018), the conditional matrix was used as a tool to clarify and elucidate the process of action-interaction of the IMO stakeholders in respect of how they respond and interact to changes depending on the situation they are in, stemming from the conditions and consequences. The three components of the matrix that were developed following a rigorous analysis of the empirical data provided the insight needed into what must be done to achieve a truly transformative action that mobilizes the whole of IMO to be meaningfully committed towards achieving sustainable development. The researchers identified the following three key thematic linkages connecting the three components of the matrix in a way to further streamline the aforementioned key foundations. To this end, there is

- A need for a more strategized approach through an effective IMO strategic framework to create the right context and conditions for the stakeholders to engage at IMO and at national level on SDGs;
- A need for a governance structure to facilitate the actions for the implementation process of the SDGs; and

- A need for a firm commitment towards the 2030 Agenda through a holistic approach for concrete SDG-related outcome.

These thematic linkages form the foundation for creating an institutional conceptual framework that is key to achieving the desired outcome. The above three key points indicate that strategy and governance for sustainable development were found to be two equally important determinants that should be considered by the IMO stakeholders if they are to effectively implement the SDGs to maintain a sustainable shipping transportation system. It also establishes the most important constructs and variables needed to construct the building blocks of a feasible institutional conceptual framework, which is being proposed in the next sub-section.

4.1 Institutional conceptual framework

The three key thematic linkages connecting the three components identified in the preceding sub-section underpin the core building blocks that form the institutional conceptual framework, which could be put in place to facilitate the realization of the propositions put forward by this research. The research found that in order for the international shipping to contribute towards the attainment of the SDGs on an international and national scale, several concrete actions are required. In this way, the context and conditions will be clearly set for a concrete outcome, as otherwise shipping may

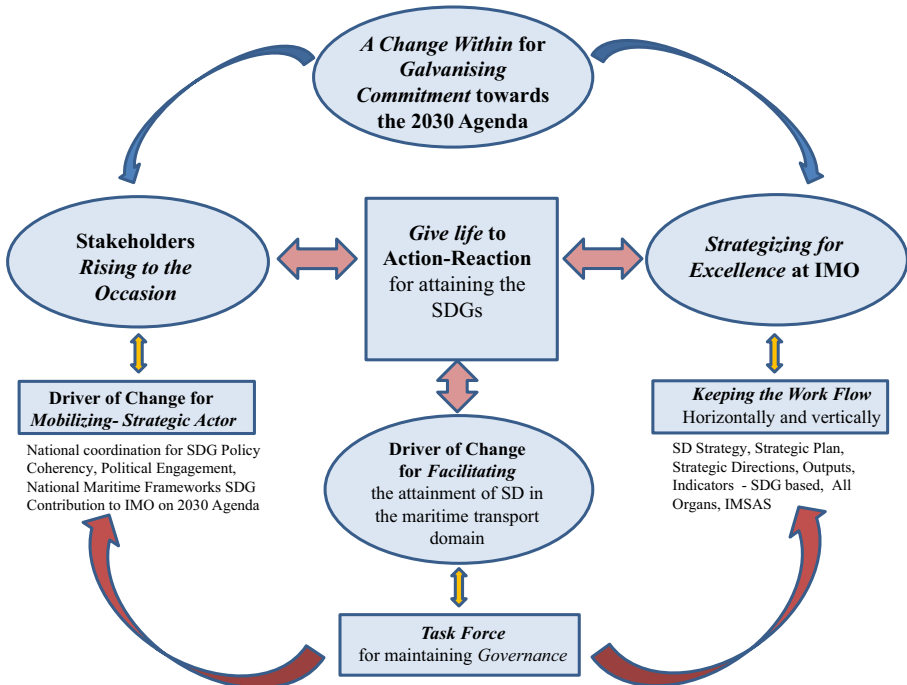


Fig. 8 An institutional conceptual framework for the implementation of the 2030 Agenda and the SDGs in the international maritime transport domain (source: self-designed)

continue to lag behind in contributing towards the attainment of the 2030 Agenda. Based on these research findings, this paper presents an institutional conceptual framework, a Stakeholder-IMO dimensional model, which can serve as a model for the implementation of the 2030 Agenda and the SDGs within the international maritime transport domain. The institutional conceptual framework shown in Fig. 8 was developed by the researchers and is a validated representation of the outcome of this study elicited from the substantive area of inquiry—the IMO and its stakeholders. It is based on the researchers' analysis and understanding of how the key thematic linkages, the key foundations, and the propositions as identified by this research study, and their variables connect with each other to lay the foundations for the much desired SDG-related action-reaction within the IMO and at national level.

The institutional conceptual framework can be adopted by the IMO and its stakeholders if they wish to effectively pursue sustainable development. The institutional conceptual framework as depicted in Fig. 8 shows that, in order to achieve the much needed change within existing practices at national level and at the IMO for galvanizing commitment towards the 2030 Agenda, the stakeholders must rise to the occasion to mobilize action at national level by appointing a strategic actor to coordinate SDG-related policy in a coherent manner to secure political commitment and direction. This, in turn, will give rise to an effective action-reaction approach on SDG-related policy making process between the stakeholders and the IMO through increased engagement by Member States and possibly by NGOs and IGOs. The framework suggests that the resulting effect will manifest itself in a much-improved strategy at IMO with particular emphasis on sustainable development by way of having the IMO's strategic directions aligned with the SDGs. It facilitates action towards the creation of concrete SDG outputs under each of the IMO organs with corresponding SDG-related indicators that can be monitored, measured, and evaluated. This action-reaction based process is facilitated by a Task Force, which provides the necessary governance structure to generate the impetus needed to keep the stakeholders and the IMO "in concert" on the implementation of the 2030 Agenda and the SDGs. This will ensure the attainment of sustainable development through effective high-level policy making process in the maritime transport domain.

The findings also suggest that the maritime stakeholders attending IMO meetings would need to identify the activities that are to be undertaken for each organ of the IMO vis-à-vis the SDGs, following which existing sustainability gaps must be identified and narrowed to achieve a sustainable shipping transportation system by coherently reflecting this in the outputs of the IMO strategic plan. This can be best addressed within the Task Force led by strategic actors, who can support and help the IMO Secretariat, in particular, identify sustainability gaps in relation to the work of the IMO organs. The institutional conceptual framework provides the IMO and its stakeholders with a potential solution to the challenging task of how to strategically align all its work and agree on what needs to be done to narrow existing gaps with a view to achieving a more sustainable maritime transport system through an effective strategy on sustainable development and an appropriate governance structure. These two measures are bound to provide the means for the fulfilment of the SDGs. IMO must take the necessary steps to ensure that if a sustainable development strategy is developed, as being proposed by this paper, it must strike a balance among the three dimensions of sustainable development. The sustainable development strategy should be the fulcrum around which

gaps in relation to the SDGs are addressed through concrete and balanced SDG outputs under the IMO strategic plan. As the institutional conceptual framework shows, this whole process should be implemented through a governance architecture led by the Task Force, which could be the steering mechanism that engages the IMO stakeholders more effectively through the strategic actor, thus creating more awareness and ownership at national level.

4.2 An extended institutional conceptual framework for IMO

Based on the analysis of the data and the core categories that emerged, the institutional conceptual framework for the implementation of the 2030 Agenda and the SDGs, as shown in Fig. 8, sets the main building blocks that must be put in place as a framework if the IMO stakeholders together with the IMO Secretariat seek to effectively pursue sustainable development at IMO with a view to implementing the SDGs in the maritime transport domain. From an IMO perspective, and to some extent from a national point of view, the institutional conceptual framework can be put in practice by

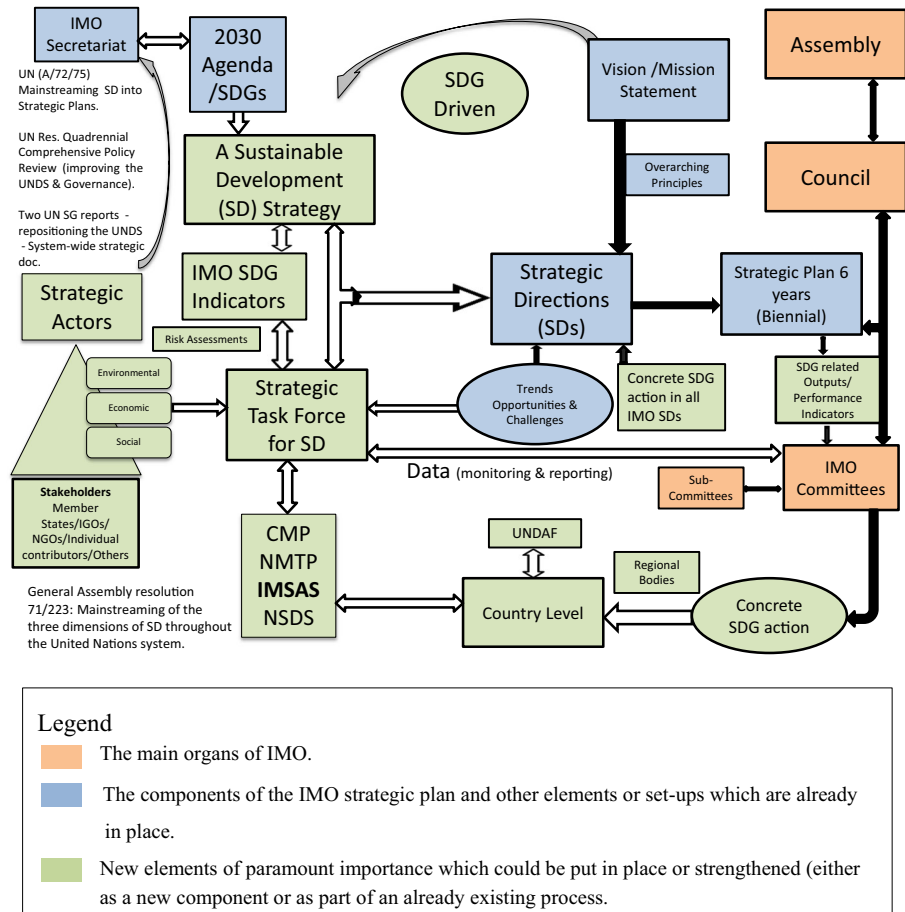


Fig. 9 An extended institutional conceptual framework adapted for IMO (source: self-designed)

including additional key elements, which are based on the empirical findings of this research. This will enable the institutional conceptual framework to be transformed into an extended institutional conceptual framework that encompasses IMO's working processes, thus making it more adaptable to IMO's work practices. The extended institutional conceptual framework, as illustrated in Fig. 9, was developed by the researchers and builds further on the institutional conceptual framework for the implementation of the 2030 Agenda and the SDGs in the international maritime transport domain, as shown in Fig. 8.

The extended institutional conceptual framework sets the structure needed for expediting action on the implementation of the SDGs in the international maritime transport domain led by IMO. As can be observed in Fig. 9, the extended institutional conceptual framework encapsulates in an integrated approach the main organs of IMO (orange shaded) and the components of the IMO strategic plan and other elements, which are already in place (blue shaded) connected with black arrows. It further frames new elements (green shaded and connected with unshaded arrows), which this research found to be of paramount importance to be put in place or strengthened, either as new components or as part of an already existing process, if the IMO Secretariat and the IMO stakeholders are to implement the SDGs in an effective and concrete manner through the IMO strategic plan. Figure 9 shows that the extended institutional conceptual framework for IMO builds on the role that the IMO stakeholders can play through their strategic actor and leverage on the importance of establishing a strategy on sustainable development within IMO. The strategic actor can be instrumental in bringing together all interested parties at national level by removing any existing silos among different government departments and ministries, thus working towards SDG policy coherence within the national setting. This will enable Member States to become more proactive towards the 2030 Agenda and the SDGs, particularly in coming up with input to IMO in relation to the three dimensions of sustainable development within the context of the SDGs.

Such input can then be fed to a Task Force, strategically instituted and purposely established under the aegis of IMO Secretariat, to provide the sorely needed governance to oversee the development of a strategy on sustainable development that will facilitate the implementation of the SDGs by IMO. The Task Force, which in principle could be open to any participant who is a member of IMO, should undertake to develop a draft sustainable development strategy, which should include IMO SDG indicators and concrete SDG-related outputs based on the gaps that would be identified in relation to IMO's work and the SDGs after a risk assessment is conducted. Ideally, this Task Force should comprise a small number of strategic actors.

The sustainable development strategy would at some stage need to be agreed at Council level and approved by the Assembly before being put in force. Guidance from the IMO Secretariat to the members of the Task Force is therefore considered to be crucial, not only from an IMO procedural point of view but also in light of several important UN Resolutions on the 2030 Agenda. The UN requires the IMO and any other UN organization forming part of the UN development system to be more coherent and effective in the implementation of the 2030 Agenda, including the mainstreaming of the three dimensions of sustainable development in its work. There are a number of issues that could be related to the concerns expressed by the Secretary-General of the UN, as referred to in Section 1 of this paper, and which therefore merit attention—

particularly those issues that have undermined the attempts by IMO to deliver on the SDGs. Therefore, the IMO Secretariat has to keep abreast with any development from a UN perspective with a view to implementing any recommendations the UN system proposes through Resolutions and other means. Apart from receiving feedback from the IMO stakeholders and the IMO Secretariat, the Task Force may receive relevant input as a result of feedback gathered from stakeholders working on Country Maritime Profiles (CMP), National Maritime Transport Policies (NMTP), IMO Member State Audit Scheme (IMSAS), and National Sustainable Development Strategies (NSDS). Input from the exercise, which the IMO Secretariat conducts to identify trends, opportunities and challenges could also be considered, whenever available. The extended institutional conceptual framework proposes that the work which the Task Force generates in relation to the SDGs in close coordination with IMO stakeholders and the IMO Secretariat, i.e. identification of sustainability gaps and IMO-based SDG performance indicators, together with the respective proposed actions under the proposed strategy on sustainable development, should be forwarded to the IMO Council for further consideration and approval. Such proposed input and suggested action by the Task Force could include concrete SDG-related work under the IMO 6-year strategic plan and its components (mission and vision statements, overarching principles, strategic directions, performance indicators, and outputs). Once the IMO Assembly approves the proposals of the Task Force, the Council will then coordinate and possibly oversee the SDG-related activities of the five IMO organs as derived from the strategy on sustainable development and its related biennial outputs. The Task Force will follow closely the process, also in terms of data monitoring, measuring, and evaluation, i.e. IMO-based SDG performance indicators, and reports back to the five IMO Committees or sub-Committees as necessary. This will ensure that through concrete SDG-related outputs, the gaps that are identified by the Task Force in relation to SDGs would be narrowed. In this way, IMO would effectively and concretely be implementing the 2030 Agenda in the maritime transport domain. This whole process would intensify the engagement of the IMO stakeholders at IMO and their efficacy in dealing with the implementation of the SDGs within their national administration and national setting, thus assisting the Member States in transforming the vision of the 2030 Agenda into real policies from a maritime transport point of view.

Through such concrete SDG action, the IMO Secretariat, together with representatives of the Member States and with the support of the strategic actor, would be in a better position to provide support at country level on how they can implement the 2030 Agenda by taking into consideration the concrete SDG action taken by IMO as a leading example. Regional bodies could be involved to further create awareness of the SDGs. The IMO Secretariat, in particular, would be ideally placed to continue ensuring that the maritime transport domain would be integrated into the United Nations Development Assistance Framework (UNDAF) also from an SDG perspective, as UNDAF is the UN's coordination mechanism at country level. Through this support, Member States would be able to understand better how they should establish their institutional arrangements in terms of national priorities on the SDGs within the context of national maritime transport and how they can ensure policy coherence when implementing the SDGs at national level. Such support would assist maritime administrations in securing government support towards the implementation of the SDGs at national level. Furthermore, Member States would be better informed on

how to mainstream the SDGs in national policies, including national maritime transport policies, Voluntary National Reviews (VNRs) on SDGs in terms of maritime policies and data, and national sustainable development strategies. Member States could also be supported in tackling challenges and in identifying cross-cutting issues, interlinkages between the SDGs, existing sustainability gaps, and areas for development. Through this level of SDG activity at country level, Member States would not only be ensuring their contribution to meeting the SDGs at national level but would also be able to mobilize action at IMO by providing feedback to the Task Force on lessons learnt at country level and on how IMO can further intensify its work on the SDGs through the strategy on sustainable development woven into the IMO strategic plan. This whole process as described above and as illustrated by Fig. 9 would galvanize the commitment of the IMO stakeholders and the IMO Secretariat towards the implementation of the 2030 Agenda and the SDGs in the maritime transport domain, hence keeping in tune with the core principle underpinning the 2030 Agenda—“leaving no one behind.”

The extended institutional conceptual framework and the process described above were developed by the researchers following further discussions with key interviewees during the period when the institutional conceptual framework for the implementation of the 2030 Agenda and the SDGs which the researchers developed was being validated. The main validation process was undertaken at IMO headquarters in London between December 2018 and January 2019 with a number of interviewees that have made a massive contribution to the research work.

5 Implications for IMO stakeholders and Secretariat

The key research findings suggest that it is of paramount importance to develop a strategy for sustainable development within the context of the SDGs in the IMO strategic plan flanked by a sound governance structure. This section frames key potential implications that should be taken into consideration by the IMO stakeholders and the IMO Secretariat in creating a more SDG orientation at IMO and at national level, chief among which are the following:

- New budgetary allocations for additional resources must be made available in the IMO business plan for the IMO Secretariat to ensure consistence in working towards meeting the goals of sustainable development as an IMO Secretariat and through each of the IMO Committees;
- IMO in general is more likely to contribute to sustainable development within the context of the 2030 Agenda, only if Member States will engage themselves for increased SDG-related action through the submission of papers i.e. proposal for the inclusion of a strategy for sustainable development in the IMO strategic plan and SDG-related outputs; input papers to IMO Committees, Council, or Assembly, etc.;
- In terms of the governance framework and the Task Force put forward by this research, it still needs to be established what the most plausible pathway for IMO to adopt such an approach would be, i.e. the Task Force could fall directly under the responsibility of the Office of the IMO Secretary-General or could form part of the

- IMO Council Strategy Working Group (CSWG) or else it could work outside the CSWG but reporting to it or reporting directly to the Council or to the Assembly;
- The strategies used in the collection, processing, analysis, and monitoring of reliable SDG-related data must be determined by IMO;
 - Although IMSAS⁷ was recognized by several interviewees as a tool that could potentially be used to assess to what extent the SDGs are implemented in a Member State, its impact on IMSAS and how such a reference to the SDGs can be incorporated within the current framework of IMSAS and its future role must still be examined at IMO;
 - The longer the delay in identifying a key strategic actor at national level for dealing with SDGs in the maritime transport domain to increase SDG-related policy coherence among government ministries, the more likely it is to have the Member State engaging dysfunctionally with SDGs at national level and at IMO;
 - Synergies, trade-offs, inter-linkages, and SDG-related gaps in and between IMO Committees must be established. This may, however, increase the current workload on some IMO Committees, such as the MEPC and the MSC, as within the context of sustainable development and the 2030 Agenda these remain largely ignored

6 Conclusion

Through this research study, the researchers have acquired deeper and broader knowledge on the issues and the challenges, which are either encountered or may be encountered during the implementation of the 2030 Agenda in the maritime transport domain within the context of IMO and, to some extent, at national level. This research is the first study that has investigated such issues using a grounded theory approach during which interviews were mainly conducted at IMO headquarters in London with key representatives of Member States, IGOs, and NGOs. The study identified what needs to be done from a strategic and governance point of view to narrow the gap in order to generate awareness of the SDGs and engagement with the IMO stakeholders through a coherent approach. This research study has identified the following limitations, some of which could not be addressed due to the focus and scope of the study but may be considered for future research. The research study did not

- Look into the details of how the SDG interaction at national level, as mentioned by the interviewees particularly those representing maritime administrations, is taking place in a national setting as this would have required further fieldwork within each Member State that was interviewed, i.e., with different government entities;
- Identify sustainability gaps or which SDGs can be dealt with by different IMO Committees;
- Identify which current outputs under the IMO strategic plan can be aligned with the SDGs;
- Delve into what kind of SDG outputs could be developed under the strategic directions of the IMO strategic plan and the timeframes required;

⁷ The IMO Member State Audit Scheme (IMSAS) provides an audited Member State with a possibility of an assessment of how effectively it implements and administers the mandatory IMO instruments falling under the Scheme (IMO, 2017a)

- Look into the steps that Member States have taken to implement the 2030 Agenda in their country; and
- Examine Member States' SDG institutional arrangements such as coordinating mechanisms or the extent to which the SDGs were incorporated into their national policies or strategies.

Furthermore, while the proposed institutional conceptual framework and the extended institutional conceptual framework that this research is presenting have both been validated with several key interviewees, both frameworks still require to be applied in real practice. The literature on SDGs within the context of the maritime transport domain is still an emergent field of research, and there is limited literature available on how the implementation of the 2030 Agenda in the shipping sector can be achieved. In terms of future research, the researchers believe that more research is required, particularly at national level, within maritime administrations and with cross-sectoral entities to shed revealing light on the underlying factors underpinning the issues. It is clear that the level of performance of Member States at IMO is not consistent among Member States, and the degree of engagement varies depending on where the prime interest of the Member State lies—a stance that is quiet common in other UN system bodies. It is suggested that more in-depth studies be carried out to further analyze how the grounded propositions can be best addressed and put in practice through the proposed institutional conceptual framework. Such studies could further identify what is additionally needed to effectively implement the 2030 Agenda for sustainable development and the SDGs in the maritime transport domain in accordance with best practices in the field. It would also be very revealing and insightful to see this study extended to other contexts with multiple stakeholders operating in different domains and other substantive areas with different legislative set-ups.

Disclaimer The content of this paper does not necessarily reflect the official opinion of the European Maritime Safety Agency. Responsibility for the information and views expressed in this study lies entirely with the authors.

Appendix

Interview prompt list and guidelines

These semi-structured questions/prompts were developed after the first interviews were conducted. During the first interviews, unstructured questions were also asked, and which then led to the development of the following prompt list for the interviews that followed. The use of these semi-structured questions/prompts enabled more flexibility and ensured that the emerging concepts and constructs were fully developed and saturated as required by grounded theory.

The UN 2030 Agenda for Sustainable Development—strategy and governance

- The UN 2030 Agenda for Sustainable Development, its substantial role in establishing a sustainable maritime transportation system, the importance of sustainable development for shipping, shipping's global impact on world's economy;

- Challenges that the stakeholders (Contracting Governments–IMO Member States, NGOs, IGOs) are facing in respect of the 2030 Agenda, sustainable development strategies (i.e., plan of action);
- Challenges in respect of governance (process of decision-making and the process by which decisions are implemented);
- Issues encountered at the level of maritime administrations, national set-up, policy coherence, cross-cutting issues, and coordination matters;
- Need for an international strategic response towards implementing the SDGs in the maritime transport domain, led by whom (i.e., IMO) and how;
- National sustainable development strategies, relevant strategic determinants/factors for the development of a sustainable maritime transportation system;
- Importance of the three dimensions of sustainable development - the economic, the environmental, and the social dimensions. The importance of addressing them equally and in a balanced way;
- Country/entity's alignment with sustainable development strategies, strategy in place at national level, governance mechanisms;
- Effectiveness of sustainable development strategies adopted by the country/institution, impact on the development of the national maritime transportation;
- Importance of governance frameworks (international and national), approaches to sustainable development strategies for the implementation of the SDGs.

IMO's strategic plan

- Need for IMO to align its strategic plan and strategic directions, and corresponding outputs (all or partially) to respond to the 2030 Agenda. Policy coherency, complementarity, and efficiency;
- IMO strategic plan: enabling its Agents to respond to the 2030 Agenda/requires an institutional change within IMO;
- SDG action plan (should there be one), IMO's support to contracting governments in the translation of the SDGs into national policy through the Country Maritime Profiles (CMP) and the National Maritime Transport Policies (NMTPs);
- IMO Organs, TC's work on the 2030 Agenda SDGs vis-à-vis other IMO Committees, i.e. MSC, MEPC, FAL;
- Best international governance structure for IMO to realize the SDGs; IMO vis-à-vis other UN bodies;
- SDG milestones that may be set to be effectively and efficiently reached, importance of contracting governments' contribution at IMO, implementation of an SDG action plan (or another mechanism) to clearly set out the SDG outputs, IMO's transformation to support Member States in the achievement of the SDGs;
- Need for IMO's existing initiatives to be fine-tuned to better support the achievement of the SDGs at national and international level;
- IMO's support to developed/developing countries, least developed countries (LDCs), and Small Island Developing States (SIDS);
- IMO Secretariat's contribution in the review of SDGs at the UN, in its work program and sessions;

- IMO Council/Assembly's work on SDGs: (i) focus only on some SDGs, i.e. Goal 14: conserve and sustainably use the oceans, seas, and marine resources for sustainable development); (ii) evaluate any progress made on all the 17 SDGs such as gender equality, life below water, climate action, and quality education; or (iii) address several SDGs every year, as may be decided;
- IMO's support for the participation by the relevant stakeholders in the follow-up and review processes conducted at the global/regional/national level, including the thematic and country reviews on SDGs, i.e. working group/task force on SDGs.

Contribution of contracting governments/Member States/IGOs/NGOs

- Member States' contribution to the work of IMO towards implementing the SDGs, issues encountered, support from national government entities, coordination, etc.;
- Challenges/issues the country and/or contracting governments/IGO/NGOs are experiencing or can experience, i.e., when implementing the SDGs, when providing SDG input to IMO in respect of the IMO strategic plan and work within the IMO organs.

Follow-up

- Ways for IMO and the Member States/IGOs/NGOs to work coherently on SDGs, follow-up and review of the 2030 Agenda and the SDGs;
- Role of the IMO in the follow-up and review of the implementation of the 2030 Agenda;
- Steps which IMO or contracting governments may take to best support/follow-up and review the implementation of SDGs at international, regional, or national in a coherent and effective manner.

References

- Birks M, Mills J (2017) *Grounded theory: a practical guide*, 2nd edn. Sage Publications Inc, London
- Corbin J, Strauss A (2015) *Basics of qualitative research. Techniques and procedures for developing grounded theory*. 4th ed. Thousand Oaks, California, Sage Publications, Inc
- Charmaz K (2006) *Constructing grounded theory: a practical guide through qualitative analysis*. Sage Publications, London
- Flick U (2009) *An introduction to qualitative research*, 4th ed. London: Sage Publications, Inc
- Glaser B, Strauss A (1967) *The discovery of grounded theory: strategies for qualitative research*. Aldine Publishing Company, Chicago
- Holton J, Walsh I (2016) *Classic grounded theory: applications with qualitative and quantitative data*. USA: Sage Publications Inc
- Miles M, Huberman M, Saldaña J (2014) *Qualitative data analysis*, 3rd edn. Sage Publications Inc, USA
- IMO (2017a) IMO Member State Audit Scheme. <http://www.imo.org/en/OurWork/MSAS/Pages/AuditScheme.aspx>. Accessed 21 March 2017
- IMO (2017b) Assembly 30th Session: Consideration of the Report of Committee 1 <https://docs.imo.org/Category.aspx?cid=30>. Accessed 2 December /2017
- IMO (2017c) How international shipping and the maritime community contribute to sustainable development: International Maritime Organization. <http://www.imo.org/en/MediaCentre/HofTopics/Documents/IMO%20SDG%20Brochure.pdf>. Accessed 03 April 2018

- IMO (2017d) Report of the technical cooperation committee on its sixty-sixth session. <https://docs.imo.org/Category.aspx?cid=51&session=66>. Accessed 02 February 2017
- IMO (2018a) The 2030 Agenda for sustainable development. Implementation of the 2030 Agenda for Sustainable Development Note by the Secretariat. <https://docs.imo.org/Category.aspx?cid=51>. Accessed 16 August 2018
- IMO (2018b) Implementation of the 2030 Agenda for sustainable development. Summary report on the evaluation of the international maritime organization's contribution to the achievement of the millennium development goals <https://docs.imo.org/Category.aspx?cid=51>. Accessed 27 December 2018
- IMO (2018c) Report of the technical cooperation committee on its 68th Session. <https://docs.imo.org/Category.aspx?cid=51&session=68>. Accessed 21 December 2018
- IMO (2019) IMO helps Member States with sustainability targets. <http://www.imo.org/en/MediaCentre/WhatsNew/Pages/default.aspx>. Accessed 30 January 2019
- IMO (2019b) Council 122nd session summary of decisions. <https://docs.imo.org/Category.aspx?cid=36>. Accessed 10 August 2019
- IMO (2019c) World Maritime theme for 2020: sustainable shipping for a sustainable planet. <http://www.imo.org/en/MediaCentre/PressBriefings/Pages/17%2D%2Dworld-maritime-theme-for-2020.aspx>. Accessed 28 July 2019
- Sciberras L, Silva J (2018) The UN's 2030 Agenda for sustainable development and the maritime transport domain: the role and challenges of IMO and its stakeholders through a grounded theory perspective. *J.R. WMU J Marit Affairs* 17:435. <https://doi.org/10.1007/s13437-018-0147-2>
- Strauss A, Corbin J (1998) *Basics of qualitative research: techniques and procedures for developing grounded theory*, 2nd edn. California, Sage Publications Inc, Thousand Oaks
- Strauss A, Corbin J (2008) *Basics of qualitative research: techniques and procedures for developing grounded theory*, 3rd edn. California, Sage Publications Inc, Thousand Oaks
- United Nations (2017) Resolution adopted by the general quadrennial comprehensive policy review of operational activities for development of the United Nations system. <http://undocs.org/A/RES/71/243>. Accessed 06 May 2017
- United Nations (2017b) Repositioning the United Nations development system to deliver on the 2030 Agenda: ensuring a better future for all, Report of the Secretary-General https://digitallibrary.un.org/record/1298793/files/A_72_124%26E_2018_3-EN.pdf. Accessed 06 June 2018
- United Nations (2017c) Report of the Secretary-General mainstreaming of the three dimensions of sustainable development throughout the United Nations system. http://www.un.org/ga/search/view_doc.asp?symbol=A/72/75&Lang=E. Accessed 28 June 2017
- United Nations (2018) Shifting the management paradigm in the United Nations: implementing a new management architecture for improved effectiveness and strengthened accountability. <http://undocs.org/A/72/492>. Accessed 17 November 2017

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