Abstract: This paper explores the extent to which an integrated approach to oceans regulation is embodied within the law of the Sea Convention, and how subsequent developments in international law and at a regional level have advanced this approach. By examining how integration operates normatively, spatially, sectorally, and temporally, as well as across intellectual disciplines and between multiple users, it suggests that considerable progress has been made in realising this fundamental goal. However, it also notes until proper institutional support for integration is provided then we are unlikely to make more significant progress.
The Law of the Sea Convention and the Integrated Regulation of the Oceans

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Abstract
This article explores the extent to which an integrated approach to oceans regulation is embodied within the Law of the Sea Convention, and how subsequent developments in international law and at a regional level have advanced this approach. By examining how integration operates normatively, spatially, sectorally, and temporally, as well as across intellectual disciplines and between multiple users, it suggests that considerable progress has been made in realising this fundamental goal. However, it also notes that until proper institutional support for integration is provided, we are unlikely to make more significant progress.

Keywords
Law of the Sea Convention (LOSC); integration; institutions

Introduction
“Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole, …”

Despite its modest location within the preamble to the Law of the Sea Convention (LOSC), integration is an essential feature of the law of the sea. The call for integration does not of itself establish a legal requirement to adopt an ‘integrated approach’. It sets out a broad policy objective. Within the body of the LOSC a number of specific provisions allude to integration, but they do not establish a general requirement to integrate, nor do they flesh out the meaning of integration. At best, the LOSC indirectly or partially accommodates an integrated approach. In light of this, is it meaningful to talk of a legal duty to adopt an integrated approach? Or is it perhaps best conceived of as an organising principle akin to sustainable development? Or is it merely rhetoric? This article explores the meaning of integration and how it operates within the law of the sea. In the 30 years since the adoption of the LOSC, integration has been improved through a number of instruments, especially at the regional and national level.

Integration in the LOSC
Integration can be conceptualised in six ways: normative, spatial, sectoral, disciplinary, temporal and ‘user’ integration. By understanding how integration operates in these ways, we can build up a better picture of the extent to which the LOSC has contributed to an integrated regime, and how integration can be strengthened.

Normative integration refers to the way in which legal norms should be considered as part of a system’s rules; one which entails that the meaning and application of individual

rules be considered in light of related rules. This approach is accommodated within Article 311 of the LOSC, and is an important feature of subsequent, related instruments, such as Article 4 of the Fish Stocks Agreement or Article 22(2) of the Convention on Biological Diversity. Normative integration cannot be assessed exclusively within the LOSC, although it is well served by its flexible and adaptive framework.

Spatial integration requires regulation according to the nature of activities and environments. Despite the zonal approach taken by the LOSC, mechanisms exist that facilitate regulation across different maritime zones. For example, Article 195 provides that States shall act so as not to transfer pollution from one area to another. Article 123 requires cooperation between States bordering enclosed or semi-enclosed seas in respect of living resources, protection of the marine environment, and scientific research. Cross-jurisdictional regulation of fisheries is required variously by Articles 63, 64, 66 and 67. Navigational rights are not identical in discrete maritime zones, hence the inclusion of regimes for innocent/transit/archipelagic passage and freedom of the high seas. However, the actual navigation of vessels is standardised through the Collision Regulations. Also, the fact that shipping regulation is predicated upon flag State jurisdiction generally ensures that spatial boundaries do not impede harmonised shipping rules, even if the responsibilities of some flag States are wanting. There have been regional deviations from generally accepted international standards for the regulation of shipping, for example, in the context of European Union (EU) requirements for single-hull vessels. However, these are occasional, and, arguably, function as a temporary means of accommodating different interests in much the same way as the ‘persistent objector’ rule operates.

The key challenge is to improve spatial integration between the high seas and coastal waters, or between the coastal waters of different States, where institutional support for regulation is much reduced compared to wholly domestic spatial scenarios. Spatial integration across jurisdictions demands meaningful and effective cooperation between States. Varying degrees of success have been achieved through the UN Environment Programme’s regional seas programme, and to a lesser extent through regional fisheries management organisations (RFMOs). However, these measures are confined to sectoral issues and are not always successful. For example, even though the OSPAR Commission for the Protection of the Environment of the North East Atlantic is often lauded, it lacks the authority to address a full range of issues affecting the marine environment, and RFMOs have been subject to criticism for their inability to achieve the sustainable management of transboundary living resources.

Sectoral integration requires the coordination of discrete activities, such as fishing or shipping, and that consideration is given to their cumulative impacts. This, alongside spatial integration, represents the most important aspect of substantive integration of oceans regulation. Unfortunately, as Elferink notes, scant attention is given to this in the LOSC. It is occasionally required, as in the case of the impacts of offshore installations on navigation, or more generally with the principle of due regard in the exercise of high seas freedoms. There is some crossover in respect of protection of the marine environment and fisheries regulation,

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although this is a simple consequence of the physical relationship between pollution and marine life, rather than a properly constituted framework for coordinating activities.

Closely related to this sectoral integration is the idea of disciplinary integration. A lack of interdisciplinary knowledge can impede regulation of marine areas. Although the LOSC is a legal regime, implementation and development of its provisions requires action by lawyers, policy-makers, and technical experts from a range of disciplines, such as economics, marine biology, and geology. Knowledge-based regulation permeates every aspect of the LOSC, meaning that it is inappropriate to adopt a narrow legalistic approach to interpreting and applying the LOSC. This is most apparent within the context of maritime delimitation, which is fundamentally contingent on natural factors. Disciplinary integration is generally supported by the LOSC. For example, Article 243 requires cooperation through binding agreements, to establish favourable conditions for research and including the integration of research. However, it seems that the most productive initiatives occur through informal processes, largely because disciplinary integration is not something easily fixed within a substantive rule of law. These informal processes include the TRAIN-Sea-Coast programme, the Technical Cooperation Fund, and the Technical Assistance Programme hosted by the UN Division of Ocean Affairs and Law of the Sea (DOALOS). Also, the Ad-hoc Open-ended Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction is well populated by a range of technical experts, lawyers and representatives of States and other agencies. These examples point towards the importance of institutional support for integration, and not merely legal duties or principles.

Temporal integration is concerned with the way in which the same or different activities interact over time. Thus cumulative adverse impacts can be identified and avoided. There is no explicit call for activities to be considered over time within the LOSC, although this much could be regarded as implicit in any of the discrete requirements to manage resources sustainably, or to protect the marine environment. Neither does the LOSC specifically consider future generations. Temporal integration requires institutions capable of assessing the impacts of current and prospective activities and putting in place measures to regulate this.

The final element of integration is ‘user’ integration. The LOSC is principally concerned with regulating inter-State relations. However, on a day-to-day basis the use of the oceans involves individuals and other legal persons. A truly integrated approach would be able to engage such users in the regulation of ocean space. To some extent, the LOSC acknowledges other users, and it also distinguishes between classes of user (developing states, land-locked States, geographically disadvantaged States). However, it lacks the institutional capacity to accommodate a wider range of participants and to structure their input into the management of ocean space.

One of the key issues that is uncertain about integration in whichever form it takes is the question of how to weight different activities occurring in the same space or at the same time. The LOSC is facilitative in this respect and offers little by way of guidance on the weighting or balancing of activities. For example, Article 59 notoriously refers to equity and all relevant circumstances, taking into account the importance of interests of the parties and of the international community as a whole. Flexibility is required here; in the absence of institutional support there is the risk that optimal solutions may be missed.

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Integration Beyond the LOSC

Since the adoption of the LOSC, the notion of integrated marine regulation has received further attention. The need for integrated, multi-disciplinary and multi-sectoral management was recalled in paragraph 30 of the World Summit on Sustainable Development Johannesburg Plan of Implementation, and features in Chapter 17 of Agenda 21. The meaning of integration has been developed in various guidelines. Article 6(b) of the Convention on Biological Diversity requires parties to adopt an integrated approach to the conservation of biodiversity, as far as possible and in accordance with their particular conditions and capabilities. However, these instrument are either non-binding, or programmatic, and so do not establish specific requirements for integration. The nature and complexity of integration are such that it cannot easily reduced to a singular legal duty. It is too contextual, conditional, and incapable of being measured in terms of a specific outcome. This requires the use of a range of instruments operating at different levels.

Normative integration is generally required under the law of treaties. Thus, the International Law Commission (ILC) has stated that there is a presumption that treaties remain shaped by custom and general principles of law for matters not explicitly resolved in a treaty, and that treaty rules are intended to be consistent with existing principles of international law. This is an important feature of recent decisions by a number of international tribunals. However, it does not always prevail. For example, the Court of Justice of the EU has adopted a rather more formalistic approach that has occasionally marginalised the relevance of some law of the sea instruments when considered in light of EU law. Despite this and the fear of fragmentation, general international law can sustain the integration of norms. Of relevance here is the idea that subsequent rules of law can be more readily taken into account in the interpretation of treaties that contain open or evolving concepts. Since the LOSC is a relatively open framework agreement, it is quite amenable to development through other instruments, especially in the context of fisheries and protection of the marine environment. Of course, as Boyle notes, an integrated approach does not permit the rewriting of treaties. Nor does it legitimise the application of law beyond its appropriate context. Although the potential of the domestic and EU approaches are noted below, a degree of caution must be exercised about how much this could shape an integrated approach to the law of the sea in other regions.

17 Ibid., para 23.
States are beginning to harness more sophisticated approaches and improve institutional capacity to support an integrated approach to marine regulation. The Marine and Coastal Access Act 2009 in England and Wales\(^\text{19}\) and the EU Integrated Maritime Policy\(^\text{20}\) and Marine Strategy Framework Directive (MSFD)\(^\text{21}\) are perhaps the most important such developments. What is important about these integration projects is how they manifest the above elements of integration, and demonstrate the importance of institutional capacity that can plan, regulate and enforce integrated measures.

A commitment to integration is both explicit and implicit within the MSFD. The Directive forms part of a system of EU law predicated upon the integration of environmental protection. This includes advancing EU commitments under the LOSC and related instruments.\(^\text{22}\) It commits Member States to achieving good environmental status for European seas by 2020. The regime is prospective and intended to enable “the sustainable use of marine goods and services by future generations”. It operates at the level of regional seas, and specifically requires account to be taken of transboundary effects. The Directive requires measures to be coherent and coordinated across regions. The Directive does not expressly integrate regulation across different sectors. However, this is implicit in its focus on ecosystem-level functions and processes, and on human-induced changes. Interdisciplinary research and management underpin this regime. Although the Directive does not expressly require research, this is implicit within the provisions on monitoring and assessment. Beyond the Directive, the EU has been particularly committed to developing interdisciplinary research to underpin its maritime policies, and has invested €80 billion in research projects under its ‘Ocean of Tomorrow’ programme.\(^\text{23}\) User engagement is also a feature of the Directive, with “communication, stakeholder engagement and raising public awareness” required in the regional programmes. Member States are also required to ensure “all interested persons” can participate in the implementation of the Directive. Although it does not establish formal management bodies, it does establish institutional procedures and will build on existing agencies, such as OSPAR, or domestic institutions where they exist. In this respect the creation of a dedicated marine management institution under the Marine and Coastal Access Act is a crucial development, and illustrates how integration can be operationalized in all its forms.

The UK Marine Management Organisation (MMO)\(^\text{24}\) is obliged to regulate coastal waters “taking account of all relevant facts and matters... and in a manner which is consistent and co-ordinated”. This cross-sectoral approach is reinforced by the power of the MMO to manage most marine activities, with the exception of offshore oil and gas. Although navigation matters are not directly regulated by the MMO, this must be considered as part of its remit in respect of marine spatial planning and licensing. In any event, the absence of a single coordinating authority for all activities can be accommodated through inter-departmental cooperation. Thus the MMO has concluded a series of memoranda of understanding with other lead agencies whose remit touches upon marine matters. Central to the operation of the regime is a system of marine spatial planning that will begin to structure the whole range of activities occurring in coastal waters. This means that regulation will be fundamentally forward looking and capable of accommodating temporal concerns about marine activities. Although cooperation with States with adjacent maritime zones is not


\(^{20}\) http://ec.europa.eu/maritimeaffairs/.


\(^{24}\) http://www.marinemanagement.org.uk/.
formally required under the Act, this is occurring during the development of the marine plans. More generally the MMO will have to support the implementation of the MFSD, which reinforces spatial integration at a regional level. Also, under the MMO licensing guidance, cross-border issues must also be taken into account when determining license applications.\textsuperscript{25} Licences are required for most activities that involve a deposit or removal of a substance or object from the sea. As regards disciplinary integration, it may be noted that the MMO is given extensive powers to undertake or commission research relating to its broad functions. It has also established a Science Advisory Community, which is a network of experts from whom the MMO can obtain advice on a flexible basis. Finally, user integration is achieved through strong consultation requirements and participatory decision-making. The Act requires participation of interested persons in the development of marine plans, and various provisions require consultation with appropriate authorities. If nothing else, this helps ensure both the legitimacy and acceptability of decisions concerning how best to accommodate increasing uses of limited ocean resources.

**Conclusion**

In the 30 years since the adoption of the LOSC, there has been a strengthening of integration. The LOSC is generally conducive to integration, although some of its provisions have required ‘refinement’. What is now required is stronger institutional support to put these into practice and this can best be addressed at the domestic or regional levels.

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Abstract
This article explores the extent to which an integrated approach to oceans regulation is embodied within the law of the Sea Convention, and how subsequent developments in international law and at a regional level have advanced this approach. By examining how integration operates normatively, spatially, sectorally, and temporally, as well as across intellectual disciplines and between multiple users, it suggests that considerable progress has been made in realising this fundamental goal. However, it also notes until proper institutional support for integration is provided then we are unlikely to make more significant progress.

Keywords
Law of the Sea Convention (LOSC); integration; institutions

Introduction

Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole.¹

Despite its modest location within the preamble to the Law of the Sea Convention (LOSC), integration is an essential feature of the law of the sea. The call for integration does not of itself establish a legal requirement to adopt an ‘integrated approach’. It sets out a broad policy objective. Within the body of the LOSC a number of specific provisions allude to integration, but they do not establish a general requirement to integrate, nor flesh out the meaning of integration. At best, the LOSC indirectly or partially accommodates an integrated approach. In light of this, is it meaningful to talk of legal duty to adopt an integrated approach? Or is it perhaps best conceived of as an organising principle akin to sustainable development? Or is it merely rhetoric. This article explores the meaning of integration and how it operates within the law of the sea. In the 30 years since the adoption of the LOSC, integration has been improved through a number of instruments, especially at the regional and national level.

Integration in the LOSC

Integration can be conceptualised in six ways: normative, spatial, sectoral, disciplinary, temporal and ‘user’ integration. By understanding how integration operates in these ways, we can build up a better picture of the extent to which the LOSC has contributed to an integrated regime, and how integration can be strengthened.

Normative integration refers to the way in which legal norms should be considered as part of a system rules; one which entails that the meaning and application of individual rules be considered in light of related rules. This approach is accommodated within Article 311 of

the LOSC, and is an important feature of subsequent, related instruments, such as Article 4 of the Fish Stocks Agreement\(^2\) or Article 22(2) of the Convention on Biological Diversity.\(^3\) Normative integration is something that cannot be assessed exclusively within the LOSC, although it is well served by its flexible and adaptive framework.

Spatial integration requires regulation according to the nature of activities and environments. Despite the zonal approach that taken by the LOSC, mechanisms exist that facilitates regulation across different maritime zones. For example, Article 195 provides that States shall act so as not to transfer pollution from one area to another. Article 123 requires cooperation between States bordering enclosed or semi-enclosed seas in respect of living resources, protection of the marine environment, and scientific research. Cross jurisdictional regulation of fisheries is required variously by Articles 63, 64, 66 and 67. Navigational rights are not identical in discreet maritime zones, hence regimes of innocent/transit/archipelagic passage and freedom of the high seas. However, the actual navigation of vessels is standardised through the Collision Regulations. Also, the fact that shipping regulation is predicated upon flag State jurisdiction generally ensures that spatial boundaries do not impede harmonised shipping rules, even if the responsibilities of some flag States is wanting. There have been regional deviations from generally accepted international standards for the regulation of shipping, for example, in the context of EU requirements for single hull vessels. However, these are occasional, and, arguably, function as temporary means of accommodating different interests in much the same way as the persistent objector rule operates.

The key challenge is to improve spatial integration between the high seas and coastal waters, or between the coastal waters of different States, where institutional support for regulation is much reduced compared to wholly domestic spatial scenarios. Spatial integration across jurisdictions demands meaningful and effective cooperation between States. Varying degrees of success have been achieved through UNEP’s regional seas programme, and to a lesser extent through regional fisheries management organisations. However, these measures are confined to sectoral issues and are not always successful. For example, even though OSPAR is often lauded, it lacks the authority to address a full range of issues impacting on the marine environment, and RFMOs have been subject to criticisms for their inability to achieve the sustainable management of transboundary resources.\(^4\)

Sectoral integration requires the coordination of discrete activities, such as fishing or shipping, and that consideration is given to their cumulative impacts. This alongside spatial integration represents the most important aspects of substantive integration of oceans regulation. Unfortunately, as Elferink notes, scant attention is given to this in the Convention.\(^5\) It is occasionally required, as in the case of the impacts of offshore installations on navigation, or more generally with the principle of due regard in the exercise of high seas freedoms. There is some crossover in respect of protection of the marine environment and fisheries regulation, although this is a simple consequence of their physical relationship between pollution and marine life, rather than a properly constituted framework for coordinating activities.


\(^3\) (1992) 31 ILM 818.


Closely related to this sectoral integration is the idea of disciplinary integration. A lack of interdisciplinary knowledge can impede regulation of marine areas.\(^6\) Although the LOSC is a legal regime, implementation and development of its provisions requires action by lawyers, policy-makers, and technical experts from a range of disciplines, such as economics, marine biology, and geology. Knowledge-based regulation permeates every aspect of the LOSC, meaning that it is inappropriate to adopt a narrow legalistic approach to interpreting and applying LOSC. This is most apparent within the context of maritime delimitation, which is fundamentally contingent on natural factors. Disciplinary integration is generally supported by the LOSC. For example, Article 243 requires cooperation through binding agreements, to establish favourable conditions for research and including the integration of research. However, it seems that the most productive initiatives occur through informal process, largely because disciplinary integration is not something easily fixed within a substantive rule of law. These informal processes include the TRAIN-Sea-Coast programme, the Technical Cooperation Fund, and Technical Assistance Programme hosted by DOALOS. Also, the Ad-hoc Open-ended Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, is well-populated by a range of technical experts, lawyers and representatives of States and other agencies. These examples point towards the importance of institutional support for integration, and not merely legal duties or principles.

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The final element of integration is ‘user’ integration. The LOSC is principally concerned with regulated inter-State relations. However, on a day to day basis the use of the oceans involve individuals, and other legal persons. A truly integrated approach would be able to engage such users in the regulation of ocean spaces. To some extent, the LOSC acknowledges other users, and it also distinguishes between classes of user (developing states, land-locked States, geographically disadvantaged States. However it lacks the institutional capacity to accommodate a wider range of participants and to structure their input into the management of oceans spaces.

One of the key issues that is uncertain about integration in whichever form it takes is the question of how to weight different activities occurring in the same space or at the same time. The LOSC is facilitative in this respect and offers little by way of guidance on the weighting or balancing of activities. For example, Article 59 notoriously refers to equity and all relevant circumstances, taking in account the importance of interests to the parties and the international community as a whole. Flexibility is required here, absent institutional support there is the risk that optimal solutions may be missed.

Integration beyond the LOSC

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Since the adoption of the LOSC, the notion of integrated marine regulation has received further attention. The need for integrated, multidisciplinary and multisectoral management was recalled in paragraph 30 of the World Summit on Sustainable Development Johannesburg Plan of Implementation, and features in Chapter 17 of Agenda 21. The meaning of integration has been developed in various guidelines.  

The ILC has noted that the LOSC requires parties adopt an integrated approach to the conservation of biodiversity, as far as possible and in accordance with their particular conditions and capabilities.  However, these instrument are either non-binding, or programmatic, and so do not establish specific requirements for integration. The nature of complexity of integration is such that it cannot easily reduced to a singular legal duty. It is too contextual, conditional, and incapable of being measured in terms of a specific outcome. This requires the use of a range of instruments operating at different levels.

Normative integration is generally required under the law of treaties. Thus, the ILC have stated there is a presumption that treaties remain shaped by custom and general principles of law for matters not explicitly resolved in a treaty, and that treaty rules are intended to be consistent with existing principles of international law. This is an important feature of recent decisions by a number of international tribunals. However, it does not always prevail. For example, the Court of Justice of the European Union has adopted a rather more formalistic approach that has occasionally marginalised the relevance of some law of the sea instruments when considered in light of EU law. Despite this and the fear of fragmentation, general international law can sustain the integration of norms. Of relevance here is the idea that subsequent rules of law can be more readily taken into account in the interpretation of treaties that contain open or evolving concepts. Since the LOSC is a relatively open framework agreement, it is quite amenable to development through other instruments, especially in the context of fisheries and protection of the marine environment. Of course, as Boyle notes, an integrated approach does not permit the rewriting of treaties. Nor does it legitimise the application of law beyond its appropriate context. Although the potential of the domestic and EU approaches are noted below, a degree of caution must be exercised about how much this could shape an integrated approach to the law of the sea in other regions.

States are beginning to harness more sophisticated approaches and improve institutional capacity to support an integrated approach to marine regulation. The Marine and Coastal Access Act 2009 in England and Wales, the EU Integrated Maritime Policy and Marine Strategy Framework Directive (MSFD) are perhaps the most important such

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13 Ibid., para 23.

developments. What is important about these integration projects is how they manifest the above elements of integration, and demonstrate the importance of institutional capacity that can plan, regulate and enforce integrated measures.

A commitment integration is both explicit and implicit within the MSFD. The Directive forms part of a system of EU law predicated upon the integration of environmental protection. This includes advancing EU commitments under the LOSC and related instruments. It commits Member States to achieving good environmental status for European seas by 2020. The regime is prospective and intended to enable ‘the sustainable use of marine goods and services by future generation’. It operates at the level of regional seas, and specifically requires account to be taken of transboundary effects. The Directive requires measures to be coherent and coordinated across regions. The Directive does not expressly integrate regulation across different sectors. However, this is implicit in its focus on ecosystem level functions and process, and human induced changes. Inter-disciplinary research and management underpin this regime. Although the Directive does not expressly require research, this is implicit within the provisions on monitoring and assessment. Beyond the Directive this is the EU been particularly committed to developing interdiscipli


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Conclusion

In 30 years since the adoption of the LOSC, there has been a strengthening of integration. The LOSC is generally conducive to integration, although some of its provisions have required ‘refinement’. What is now required is stronger institutional support to put these into practice and this is something that can best be addressed at the domestic or regional levels.