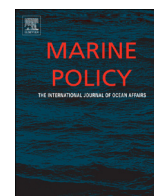


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## Marine spatial planning in reality: Introduction to case studies and discussion of findings

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### ABSTRACT

This paper explores the realities of marine spatial planning (MSP'ing), drawing on 12 case studies around Europe, employing a structured qualitative empirical approach. The findings indicate that (1) MSP'ing is often focused on achieving specific sectoral objectives, related to nationally important strategic priorities, and might better be termed 'strategic sectoral planning'. (2) MSP'ing processes tend to be complex, fragmented and emergent on an *ad hoc* basis, rather than cyclical, adaptive and prescribed on an *a priori* basis. (3) Top-down processes tend to dominate, more participative platforms tending to be 'dis-connected by design' from executive decision-making. (4) Blue growth is the dominant overall priority, often aligned with strategic sectoral priorities, despite growing indications that the target for Good Environmental Status (GES) by 2020 is unlikely to be met. This is consistent with growing concerns about the tensions between the Marine Strategy Framework Directive and the Directive Establishing a Framework for Maritime Spatial Planning. It is concluded that the realities of how MSP'ing is working contrast with widely recognised concepts and ideals as to how MSP'ing should work, as integrated-use MSP'ing based on political expedience and blue growth priorities is diverging from and potentially competing with ecosystem-based MSP'ing, including marine protected area networks, based on GES priorities. It is argued that a more empirical approach should be taken to MSP'ing research, whereby conceptual approaches which integrate sustainable blue growth and GES co-evolve with marine spatial planning practices through critical analyses of whether the realities of MSP'ing are consistent with these concepts.

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## 1. Introduction

Marine spatial planning (MSP'ing, i.e. verb) "is a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process" [1]. This paper explores the realities of MSP'ing, drawing on 12 case studies around Europe and neighbouring seas (Fig. 1, Table 1, [2–13]). These case studies were undertaken through the governance element of a European Commission (EC) funded research project on the 'monitoring and evaluation of spatially managed marine areas' (MESMA). The case studies are employed to explore: (a) how different approaches to MSP'ing have developed to achieve different aims in different contexts, (b) how these realities diverge from theoretical ideals and constructs of MSP'ing, and (c) how they illustrate some of the synergies and tensions in

the emerging policy landscape for MSP'ing in Europe [14]. There are many conceptual and policy frameworks for MSP'ing, along with related theoretical issues, but rather than reviewing these, this paper will take an empirical approach, focused on reporting the findings on the realities of the case studies, with some comparisons to particularly relevant elements of conceptual and policy frameworks, and related theoretical issues. These findings are discussed in detail in the three technical reports derived from the governance work programme of the MESMA project [15–17]. This paper will focus on four main themes that emerged from these findings: (1) strategic sectoral planning; (2) *ad hoc* processes; (3) top-down approaches; (4) blue growth priorities. A brief description of the methods employed in the case studies follows, leading to a discussion of the findings, employing these four themes.

## 2. Methods

This research employed a structured case studies analysis approach, whereby a qualitative empirical framework was developed

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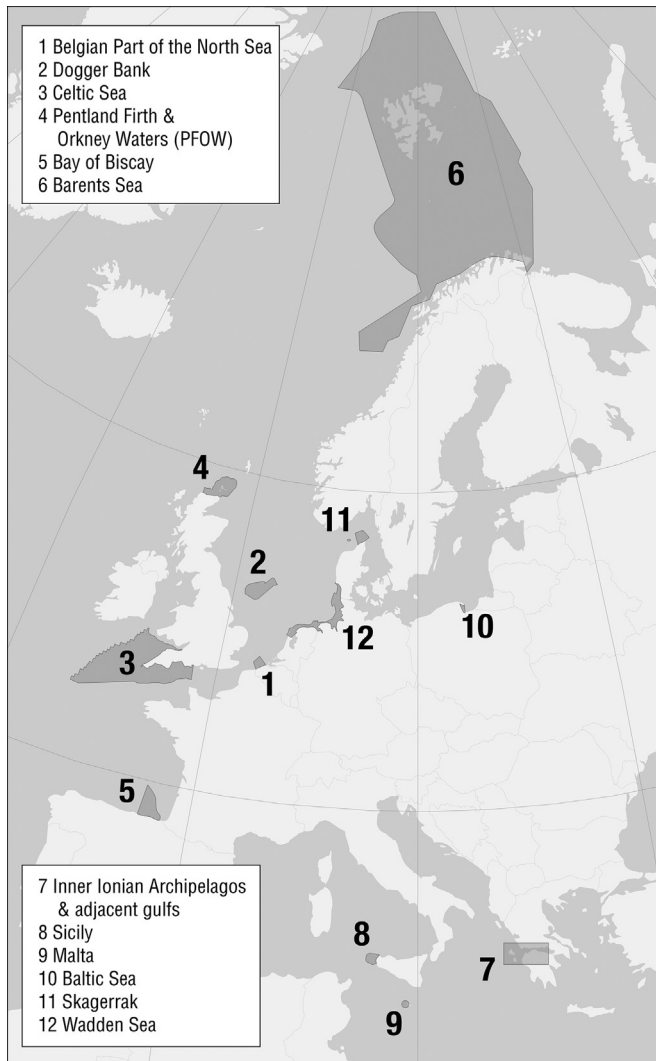


Fig. 1. Map of the 12 case studies.

as part of the research process and then applied to the 12 MSP'ing case studies through the MESMA project. Initially an approach was pursued whereby a detailed structure incorporating a 'taxonomy' of themes and incentives was applied to each case study, drawing on the MPA governance analysis approach [18], but it soon became clear that such a detailed prescriptive approach was not appropriate given the diversity of contexts and of objectives that were driving MSP'ing in the case studies. The diversity of objectives was a particular problem as it meant that the case studies had divergent aims, so there was no consistent 'direction' that the MSP'ing processes were taking, e.g. in some cases the effective achievement of MSP'ing objectives meant progress towards achieving renewable energy targets, whilst in other cases it meant progress towards designating and/or effectively managing MPAs. Some wider challenges of this diversity of objectives are discussed subsequently, but from a methodological perspective it meant that a detailed structured analysis was neither feasible nor appropriate. There was no consistent way of analysing the relative effectiveness of different MSP'ing process as a basis for a structured analysis of why some approaches were more effective than others, as 'effectiveness' depends on the 'direction' of the MSP'ing process in question. It could be argued that the effectiveness of MSP'ing is focused on achieving optimum trade-offs between a diversity of ecological, economic and social objectives [1,19], this being one of the main overall aims of many conceptual and policy frameworks

for MSP'ing, but the reality of the case studies is that they were driven primarily by a particular priority objective, and effectiveness was thereby mainly assessed by the fulfilment of the priority objective in question.

A more thematic empirical structure was therefore developed for application to all the case studies, which included the main objective that the MSP'ing process in each case study was focused on achieving, amongst other headings designed to analyse generic themes that were common to all the case studies (Table 2). These themes link to widely recognised issues and questions in natural resource governance research, however, the focus of this paper is on the empirical findings of the case studies, including their links to conceptual and policy frameworks that are more directly related to MSP'ing. The thematic empirical structure emerged from a four-year programme of research in the MESMA work programme on governance in the context of MSP'ing. This research involved several workshops around Europe with MESMA participants over a four-year period (November 2009–October 2013), some of which served to develop and apply the overall theoretical and empirical framework, and some of which were dedicated to exploring individual case studies employing this framework. Reports were produced for each of the case studies and eight of the case studies subsequently prepared a paper for this special section. These discussions draw on the report or paper listed in Table 1, along with insights gained by the authors during the workshops.

All but four of the case studies were primarily focused on the planning and management of MPAs. Of the remaining four case studies – Belgian Part of the North Sea (BPNS) Master Plan [2], Pentland Firth and Orkney Waters (PFOW) Pilot Regional Marine Spatial Plan [5], Bay of Biscay Marine Energy Project [6] and Barents Sea Integrated Management Plan [7] – all were driven by a specific sectoral priority but took, to varying degrees, a broader MSP'ing approach. At the time of this research, several of the countries participating in the MESMA project did not have broader MSP'ing processes, or these processes had only recently been initiated and were not at the stage where they could be assessed from a governance perspective. Eight of the case studies were therefore focused on MPA initiatives (Table 1), one being a process to design a network of MPAs (Celtic Sea Finding Sanctuary project [4]), one being a complex of three separate MPA designations in the offshore seas of three European countries (Dogger Bank [3]) and one being a transnational MPA across the coastal zone of three European countries (Wadden Sea [13]). Multiple-use, multiple objective MPAs have long been seen as a means of developing and demonstrating the overall benefits of management approaches which enable multiple uses to co-exist on a sustainable basis in marine areas which are subject to a diversity of development pressures, i.e. small-scale models of integrated marine resource management approaches which should be practised at a wider scale (Kenchington and Agardy 1990, Agardy 1994 cited in [20]), and to many they still are. Whilst MSP'ing has more recently been developed to extend such approaches to wider seas, related initiatives in several of the countries participating in MESMA had not yet progressed to developing and implementing marine spatial plans (MSPs: actual outputs, i.e. noun, to distinguish from the process of MSP'ing, i.e. verb), MPAs being the main focus for the development and demonstration of MSP'ing approaches.

Whilst MPAs are primarily focused on biodiversity and ecosystem conservation objectives, the processes by which MPAs are planned, established and managed inevitably also have to address other sectoral objectives, and in many cases MPAs accommodate multiple human uses. The eight MPA initiatives analysed here therefore represent appropriate case studies for analysing emerging MSP'ing approaches. Furthermore, networks of no-take and partially protected MPAs are increasingly seen as essential elements of ecosystem-based MSPs [20]. It is worth noting that the

**Table 1**  
Overview of case studies.

Main inter-sectoral conflict (s)	Main objective in governance analyses	Case study	Main drivers of conflicts	Case study reference
Biodiversity conservation, off-shore energy, fishing	Biodiversity conservation: designation of MPAs	Belgian Part of the North Sea (BPNS) Master Plan	Competition for space	Pecceu et al. [2]
		Dogger Bank - MPAs	Competition for space, lack of integration between fisheries management and conservation	Goldsborough [3]
	Development of tidal/wave energy	Celtic Sea - Finding Sanctuary project - MPAs	Competition for space, uncertainty regarding how the designated sites will be managed	Lieberknecht et al. [4]
		Pentland Firth and Orkney Waters (PFOW) Pilot Regional Marine Spatial Plan	Competition for space, uncertainty, centralised control over marine planning	Johnson et al. [5]
Development of wave energy	Bay of Biscay Marine Energy Project	Competition for space, the exclusion of local environmental NGOs from the consultation process	Galparsoro et al. [6]	
Development of oil & gas resources	Barents Sea Integrated Management Plan	Competition for space, uncertainty regarding the environmental and social impacts of oil & gas activities.	Olsen et al. [7]	
Biodiversity conservation, fishing, tourism	Biodiversity conservation: management of national and European ( <i>Natura 2000</i> ) MPAs	Inner Ionian Archipelagos & adjacent gulfs - MPA	Competition for space	Panayotidis et al. [8]
		Sicily - MPA	Competition for space	D'Anna et al. [9]
		Malta - MPA	Competition for space	Pace [10]
		Baltic Sea - MPA	Competition for space, distrust among stakeholders	Piowarczyk and Wróbel [11]
Biodiversity conservation, fishing	Biodiversity conservation: management of European ( <i>Natura 2000</i> ) MPAs	Skagerrak - MPA	Competition for space, different sources of knowledge about the impacts of bycatch	Sørensen and Kindt-Larsen [12]
		Wadden Sea - MPA	Competition for space, different approach to managing fisheries in individual countries; lack of integration between fisheries management and conservation	Slob et al. [13]

**Table 2**  
Empirical framework for the case study analyses.

Introduction	Context Focus of case study: priority objective History and nature of initiative Main legal policy basis
Case study process and governance	Main sectors and relevant organisations Roles and responsibilities of main organisations and their inter-relationships Role of different governance approaches: top-down, bottom-up and market led, whether any one dominates, ways in which approaches combined
Conflict analysis	Main conflicts: those with most important impacts on process: – primary conflicts between use and conservation – secondary conflicts between uses Main drivers of these conflicts – legislative obligations – strategic sectoral priorities, etc Approaches and mechanisms in place to address conflicts
Degree of integration	Degree of horizontal integration amongst main sectors Degree of vertical integration between different levels of government Links between the two planes of integration, e.g. role of government in addressing conflicts between main sectors Effectiveness of approaches and mechanisms for addressing conflicts Whether the process has progressed to actually influencing decisions and changing practices Main barriers to effective integration
Participation, transparency and accountability	Approaches and platforms for stakeholder participation Formal role of stakeholders: information receiving – consultation – collaboration – devolved decision making Roles and influences that stakeholders actually have Degree of transparency and influence of this on the process Accountability of government officials and sectoral organisations in reaching and implementing decisions Role of leadership in promoting effective participation, transparency and accountability
Equity and justice	Main winners and losers from the outcomes of decisions Power struggles between different sectors and stakeholders Mechanisms for ensuring equal participation and influence amongst sectors and stakeholders in the process and fair outcomes Role of access to judicial appeal platforms to promote equity and justice
Uncertainty	Different types of uncertainty, e.g. about the process, about the science to inform the process Role of uncertainties about the outcomes of decisions, e.g. – impacts in future on particular sectoral interests, activities and livelihoods – distribution of future costs and benefits

current coverage of MPAs across Europe is 5.9%, and they cannot be considered to be ecologically representative, coherent or effective [21], whilst the international target under the Convention on Biological Diversity and the Sustainable Development Goal for Oceans is 10% coverage through effective, equitable, representative and coherent networks by 2020. It is also notable that some of the MPA case study areas were more extensive than three of the MSP'ing case study areas, with only the Barents Sea Integrated Management Plan being more extensive than all the MPAs (Fig. 1).

### 3. Results and discussion

#### 3.1. Strategic sectoral planning

MSP'ing is a process that is defined as being focused on achieving a diversity of ecological, economic, and social objectives [1], but the reality is that many MSP'ing processes are initiated and are driven by a specific sectoral objective. This is usually a nationally important strategic objective, often related to energy projects, these being particularly important from energy security and economic development perspectives. For example, the BPNS Master Plan was driven by the strategic objective of minimising

the impact of MPAs on the development of offshore wind energy [2], the PFOV Pilot Regional Marine Spatial Plan and Bay of Biscay Marine Energy Project were driven by the strategic objective of promoting wave and tidal energy [5,6], and the Barents Sea Integrated Management Plan was driven by the strategic objective of promoting oil and gas production [7]. In all these cases, the driver of the MSP'ing process was to identify and open up new areas for the siting of energy generation developments at sea. Of course, other objectives were considered as part of these MSP'ing processes, but the strategic sectoral objective was the primary driver, main focus and over-riding priority of the processes, and any trade-offs and compromises were aligned to ensure that the strategic sectoral objective was achieved. As such, all four case studies that were more widely focused on 'marine spatial planning' (MSP'ing) might more accurately be described as being focused on 'strategic sectoral planning', i.e. a process that focuses on the need to expand a particular maritime sector, such as marine renewables, in order to fulfil particular requirements and visions [22].

Whilst Davies et al. [22] argue that strategic sectoral planning is driven mainly by the Strategic Environmental Assessment and Marine Strategy Framework Directives (see Qiu and Jones [14] for details), particularly to set environmental objectives from the

latter in the former, and that “spatial outputs of the sectoral planning process are considered within the context of the national marine planning regime”, the four MESMA MSP’ing case studies indicate that strategic sectoral planning actually is the national marine planning regime. Whilst the PFOW MSP was promoted as a pilot for a Scottish marine planning regime, which is itself part of an emerging marine planning regime for the whole of the UK, the reality is that the decisions taken under the PFOW MSP [5] precede the national regime, and that the concessions granted to wave and tidal energy companies, along with related marine planning consent decisions, are extremely unlikely to be retrospectively affected by any subsequent marine planning regime. It would seem that these four MSP case studies are not unusual in this respect, other MSP case studies similarly indicating a single sectoral objective as being the instigating and driving force behind MSP’ing processes, e.g. wind farm development driving Rhode Island’s MSP [23], so many MSPs might more accurately be referred to as strategic sectoral plans.

Whilst it could be argued that the strategic sectoral objective need not over-ride other objectives, the reality is that the MSP’ing processes in these cases are primarily driven by such objectives and that the achievement of such objectives is the main criterion by which effectiveness of the MSP is defined. This means that attempting to evaluate MSP’ing is challenging as ‘effectiveness’ depends on your sectoral perspective and your priorities, so a process and outcome that appears to be effective from one perspective could be considered to be ineffective from another perspective, depending on whether a given actor’s main priority is good environmental status, blue growth, renewable energy capacity, maintaining traditional activities, etc. In reality, MSP’ing often actually represents strategic sectoral planning and effectiveness will be evaluated primarily on the basis of the achievement of the strategic sectoral objective.

Another consequence of this is that the focus on achieving the strategic sectoral objective means that some conflicts are not resolved, as stakeholders have to compromise and accept negative impacts on their sectoral interests, e.g. traditional inshore fishermen displaced from zones allocated for the development of wave and tidal power developments, many locals also objecting to the aesthetic impacts of the installations (PFOW [5]), environmental values of citizens and related NGO interests undermined by granting of development consents for oil & gas developments (Barents Sea [7]) and wave energy testing (Bay of Biscay [6]), commercial fishermen also being displaced from development zones in both cases.

The BPNS Master Plan [2] is particularly interesting in that the MSP’ing process led to a diversity of outstanding conflicts, as it was initiated by the obligation to designate Special Protected Areas (SPAs) under the Birds Directive and Special Areas of Conservation (SACs) under the Habitats Directive. This was despite the main objective of the process being to minimise the impacts of such designations on other sectors, particularly the offshore wind farm industry. One outcome of this MSP’ing process was that the Vlakte van de Raan SAC designation, which had been accepted by the EC, was ‘de-designated’ at a national level in order to open up the area for wind farm development, officially due to a lack of scientific evidence to support the designation, but arguably also because the marine renewable energy company was concerned that SAC designation would foreclose the option to develop wind farms in the area. However, the EC has not accepted the de-designation and still consider the Vlakte van de Raan SAC to be designated. At the same time, the marine renewable energy company has, to date, not been permitted to build a wind farm in the area by the relevant national authorities, primarily due to objections based on the environmental concerns of coastal citizens and environmental NGOs raised during the public consultation stage of the national

renewables planning and consenting process [2]. Arguably, this represents a ‘lose-lose’ rather than a ‘win-win’ outcome. Whilst it is possible that the area will eventually be allocated as a wind farm zone by the relevant national authorities, providing for the development to be permitted, it is also possible that the EC will instigate infraction proceedings against the Belgian government for not designating and protecting the Vlakte van de Raan SAC as required under EU legislation, given that the EC does not consider the nationally instigated de-designation of the SAC to be legal under the EU Habitats Directive.

The objective of MSP’ing, according to existing theoretical frameworks, “should be to achieve consensus on priority actions”, or at least to ensure that all stakeholders are aware of the consequences of inaction if consensus is not achievable [1]. However, these case study findings indicate that MSP’ing initiatives, as currently implemented in reality, often cannot be considered to be striving towards cross-sectoral conflict resolution, as the strategic sectoral planning priority leads to conflicting sectoral interests being undermined in order to ensure that the strategic priority is achieved. Processes are not designed in a way that allows conflicts to be ‘planned away’. Arguably, they cannot realistically be expected to do so, in that trade-offs are often required when planning decisions are made, and there inevitably are losers as well as winners in every decision. These case study findings indicate that, at present, the distribution of the losses and wins is often closely related to the over-riding importance of strategically important infrastructure development projects, which are often drivers of MSP’ing initiatives, which might, indeed, be more accurately described as ‘strategic sectoral planning’.

### 3.2. *Ad hoc processes*

Existing theoretical frameworks recommend a step-by-step participative approach as good practice in MSP’ing [1], this being a variation on the generic management cycle [24] and adaptive co-management [20] processes that have been long been recognised as good practice in coastal zone, MPA and natural resource governance. However, these case studies indicate that such step-wise linear processes are rarely implemented in reality. The case study initiatives followed a wide variety of formal and informal sectoral and cross-sectoral approaches, resulting in overall processes that were complex, fragmented and emergent on an *ad hoc* basis, rather than cyclical, holistic and prescribed on an *a priori* basis.

There were stages or elements of the MSP’ing processes in some of the case studies that did more closely adhere to the step-by-step participative approach, e.g. facilitated deliberations amongst stakeholders to agree the design of a regional network of MPAs in SW England [4] and to agree management measures amongst stakeholders from three European countries for the management of the Dogger Bank SACs [3]; forums amongst stakeholders to exchange views and help inform the development of management measures for the Skagerrak SAC [12] and Wadden Sea World Heritage Site [13]. However, these deliberative stakeholder platforms, which often employed more step-wise facilitated processes, were limited in their actual influence on decisions taken on more formal platforms and through executive decision-making powers, leading to apathy, disappointment and frustration amongst some stakeholders at the *ad hoc* and disconnected role of such platforms.

### 3.3. *Top-down approaches*

The findings of the case studies indicate that one important way in which MSP’ing in reality is not consistent with MSP’ing in theory is that the approach tends to be more top-down, with limited stakeholder participation in terms of actual influence on

decisions. As discussed above, the case studies indicate that there are platforms for deliberations amongst stakeholders as part of the MPA processes, e.g. SW England MPAs [4], Dogger Bank [3], Skaggeak [12] and Wadden Sea [13], but that these are disconnected from the actual decision-making platforms, some arguing that such lack of participation breaches the ‘public participation in decision-making’ obligations of the Aarhus Convention [25]. This lack of influence on decisions is also leading some participants to become critical of the minimal influence of such tokenistic ‘talking shops’. This is consistent with findings from other MSP’ing case studies that some stakeholders are questioning the utility of continuing to engage with MSP processes over which they actually have very little influence, given the dominance of certain powerful sectors [26].

In the BPNS Master Plan process, stakeholder participation was through a variety of channels, such as bi-lateral meetings between sectoral agencies and representatives of stakeholders from each sector, as well as consultations by email, etc, but the process was top-down, inter-sectoral issues mainly being discussed through ‘shuttlecock diplomacy’, whereby the minister liaised with individual sectoral representatives to broker agreements, with final decisions being taken on an executive basis [2]. Participation in the Barents Sea Integrated Management Plan process was through formal consultations and hearings [7], similar to the approach in the Puck Bay SAC/SPA in the Baltic Sea, though the latter was more formal and limited to key stakeholder representatives, with public consultations representing little more than information provision [11]. Similarly, the PFOW MSP involved various stakeholder participation approaches, e.g. advisory forums, formal and informal public consultations, drop-in information events, participatory mapping exercises. However, the decisions were taken at an executive level by the Scottish government and seabed owner (The Crown Estate), leaving many stakeholders, particularly inshore fishermen and locals with seascape conservation interests, feeling frustrated that the decision that the renewable energy projects would go ahead had already been taken on a *fait accompli* basis before the wave and tidal energy development zones plan was initially made public, with initial development concessions already having been granted [5].

These case studies indicate that MSP’ing actually represents more of a top-down approach, none of the case studies involving collaborative decision-making between stakeholders and decision-makers from state agencies, the latter merely consulting with stakeholders through various means that did not represent collaborative decision-making. Where there were more participative platforms, these were ‘disconnected by design’ from the final decision-making platforms and processes. Furthermore, some stakeholders, particularly those related to strategically important infrastructure development and larger-scale offshore fishing, adopted a strategy of circumnavigating such participative platforms, instead opting to wield influence through their sectoral connections at higher political levels, e.g. SW England MPAs [4].

The tendency to top-down approaches in European MSP’ing has been noted by others [27], and is arguably partly related to the importance to central governments of ensuring that strategically important infrastructure and economic development projects are permitted to go ahead, rather than being delayed or rejected on the basis of the priorities of other stakeholders. In a related sense, where MSP zonation schemes have been developed, they tend to either reflect such top-down decisions, e.g. BPNS Master Plan [2], PFOW Pilot Regional Marine Spatial Plan [5], Barents Sea Integrated Management Plan [7], or be ‘disconnected by design’ from them, e.g. marine plans in England [28], as central governments are extremely reluctant to allow MSP zonation schemes to foreclose strategically important development opportunities. Aspirations to move to a ‘plan-led’ and collaborative MSP’ing system would therefore appear to be unlikely to be achieved, as MSP zonation schemes either reflect such strategic priorities or are disconnected from decisions related to such priorities.

### 3.4. Blue growth priorities

A consistent theme in a previous analysis of the emerging policy landscape for MSP’ing in Europe under the MESMA project is that there are tensions between promoting integrated-use, with an emphasis on the ‘blue growth’ of maritime sectors, under the Integrated Maritime Policy (IMP), and promoting an ecosystem-based approach, with an emphasis on good environmental status (GES) under the Marine Strategy Framework Directive (MSFD) [14]. These tensions have arguably become more apparent with the entering into force of ‘Directive 2014/89/EU Establishing a Framework for Maritime Spatial Planning’ (DEFMSP), which forms the legislative basis of the IMP and aims to reduce conflicts, encourage investment, increase coordination, increase cross-border co-operation and protect the environment “through early identification of impact and opportunities for multiple use of space” [29]. The overall aim should be to ensure that policies and initiatives for blue growth should be consistent with the achievement of GES, with integration between the two policies (MSFD and DEFMSP), but, in reality, the two policies have different attributes which may challenge integration (Table 3).

In principle, the two policies provide for integration, in that the MSFD recognises that development activities may go ahead for “reasons of overriding public interest which outweigh the negative impact on the environment”, though such activities should not “preclude or compromise the achievement of GES” (Article 14), whilst the DEFMSP recognises that “Member States shall consider economic, social and environmental aspects to support sustainable development and growth in the maritime sector, applying an ecosystem-based approach” (Article 5). However, the specific obligation to achieve GES is only mentioned in passing in the recitals to the DEFMSP, with explicit recognition of this obligation in Article 5 having been deleted during the passage of this directive through the European Commission, Council of the European Union

**Table 3**

Attributes of Marine Strategy Framework Directive (MSFD) and Directive Establishing a Framework for Maritime Spatial Planning (DEFMSP). Adapted from Qiu and Jones [14]. \*Marine - “of or relating to the sea; existing in or produced by the sea”; maritime - “connected with the sea in relation to navigation, shipping, etc.” ([www.dictionary.com](http://www.dictionary.com)); ‘marine’ arguably reflecting ecocentric values, ‘maritime’ arguably reflecting utilitarian values.

	Ecosystem-Based Marine Spatial Planning under MSFD	Integrated-Use Maritime Spatial Planning under DEFMSP
Overarching aim	A framework for implementing an ecosystem-based approach	A framework for promoting maritime economic development
Role of MSP	Marine* spatial planning as a mechanism for achieving ‘good environmental status’ by 2020	Maritime* spatial planning as a mechanism for integrating different uses and promoting ‘blue growth’
Role of MPAs	MPAs as foundation of EBM: conservation through MPAs at the core of its implementation	Conservation and MPAs as one of the uses of sea space, which can be traded-off against other uses
Authority	DG Environment	DG MARE
Approach to sustainability	Longer term-view based on ‘hard’ sustainability	Shorter-term view based on ‘soft’ sustainability

and European Parliament under the ‘co-decision’ procedure. Whilst the two policies do formally recognise each other's priorities, the wording of article 5 and the lack of explicit recognition in this article of the GES obligation under the MSFD is consistent with concerns that “an alternative legal framework for MSP may depart from the environmental objectives established in the MSFD” [14].

These concerns are exacerbated by several factors. A recent report by the European Environment Agency [21] indicates that achieving GES by 2020, which is the deadline set in the MSFD (Article 1), will be very challenging. The best available indicators to assess the environmental status of Europe's seas from a biodiversity perspective are the condition of habitats and species designated for protection in SACs under the Habitats Directive. Assessments undertaken between 2007 and 2012 indicate that only 9% of such marine habitats and 7% of marine species were considered as being at a ‘favourable conservation status’, with 66% of marine habitat assessments and 27% of marine species assessments indicating ‘unfavourable conservation status’. The report also states that “Marine biodiversity... is showing patterns of degradation across all regional seas indicative of a poor state of many species and habitats. Thus Europe's seas cannot currently be considered to be in a healthy state.... The observed loss of biodiversity affects ecosystem functioning and may cause irreversible loss of ecosystem resilience” [21].

Whilst one of the current priorities of DG Environment is a ‘fitness check’ of the Habitats and Birds Directives, which could strengthen their effectiveness in contributing to GES, DG MARE have focused on the development of an International Ocean Governance Framework. This recognises the “growing pressure on oceans and seas, which put the marine environment and ecosystems at risk, often eroding the natural capital that constitutes the growth base of sustainable blue business on which Europe's Maritime Economy depends”, but the overall emphasis is largely on blue growth, environmental concerns only being implicitly represented in the infographic accompanying this consultation in terms of ‘sustainability’ and ‘responsibility’ [30].

Furthermore, where there was a division of responsibilities, with the separate roles of Commissioner for Environment and Commissioner for Maritime Affairs and Fisheries, these remits were merged in September 2014 through the unprecedentedly broad brief of Commissioner for Environment, Maritime Affairs and Fisheries. Whilst this broader brief could, in principle, promote the integration of policies for blue growth and GES, concerns that this brief could actually reinforce the focus on blue growth at the expense of the health of marine ecosystems are exacerbated by the fact that the appointment letter for this post focused mainly on the need for blue growth, and the new commissioner must report directly to and liaise closely with the Vice-President for Jobs, Growth, Investment and Competitiveness. The EEA [21] concludes that “a closer coupling between our ambitions for ‘Blue Growth’ and ‘productive’ seas on one hand and our ambitions for ‘healthy’ and ‘clean’ seas on the other is needed”, but recent developments call into question whether the emerging European policy framework for MSP'ing is on track towards such closer coupling.

So what do the case studies indicate in terms of integration and/or tensions between blue growth and GES? Looking first at the four case studies that have a broader MSP'ing remit, two were driven primarily by the strategic priority objective of providing for the development of marine renewable energy projects (PFOV Pilot Regional Marine Spatial Plan [5] and Bay of Biscay Marine Energy Project [6]) and this objective was also an important priority in the BPNS Master Plan [2], an SAC being repositioned to accommodate this objective. Similarly, the Barents Sea Integrated Management Plan was driven primarily by the strategic priority objective of providing for oil and gas developments. Whilst

environmental impacts and related issues were, to a greater or lesser degree, taken into account in all these case studies, the strategic objective was aligned with blue growth priorities.

Overall, the case studies indicate that provision for economic development activities is very important, and that there are tensions between blue growth and GES priorities. In the four case studies that have a broader MSP'ing remit, the governance structures and processes are primarily focused on ensuring that decisions promote or do not obstruct strategically important infrastructure and economic development projects. This is further illustrated by the wider MSP'ing system for England, in which decisions concerning strategically and economically important sectors, such as oil and gas, renewable energy (above 100 MW) and port development are mandated to be taken by government bodies other than the Marine Management Organisation, which is responsible for developing and implementing MSPs. The decisions for such developments need only ‘have regard’ to the MSP for that region, this being an almost meaningless legal expression that implies little more than ‘consider’, indicating that some “sectoral authorities will still be able to operate under the *status quo* of focusing largely on their sectoral priorities, undermining the potential for a strategic, integrated, ecosystem-based approach to marine spatial planning” [28]. In the case of MSP'ing system for England, decision-making process for strategically important developments related to energy security and blue growth are ‘disconnected by design’ from MSPs, whilst in the four MESMA case studies with a broader MSP'ing remit, MSP'ing is essentially designed to ensure that decisions promote or do not obstruct such developments.

Concerns that the DEFMSMSP may increase tensions between blue growth and GES in its prioritisation of the former over the latter, which are exacerbated by the factors discussed above, would seem to be reinforced by the findings of the case studies, in that blue growth priorities appear to be the main driver. In reality, the two ‘framework’ directives (DEFMSMSP and MSFD), particularly in their transposition and operation in EU Member States, appear to be functioning more on an antagonistic than synergistic basis, with Member States often prioritising blue growth towards economic development over environmental protection towards the achievement of GES, undermining the closer coupling that has been called for [21]. This is consistent with wider arguments that MSP'ing “has been decoupled from the ecosystem despite being framed as a tool for ecosystem-based management” [31] and that there should be a radical turn away from the neoliberal logic of blue growth or “blue production” which undermines the protection of marine ecosystems [26].

Similarly, provision for economic activities, particularly fishing, renewable energy and tourism, was important in the eight case studies related to MPAs. The degree to which MPA conservation objectives were compromised to provide for blue growth priorities related to these economic sectors varied, but the maintenance or expansion of certain economic activities was an important priority in all these cases, with compromises often being aligned with blue growth. It is interesting to note that MPAs can be considered as small-scale models of ecosystem-based MSP'ing from which the concept of wider-scale MSP'ing more recently evolved. From an ecosystem-based perspective, ecologically coherent networks of MPAs are essential components of MSP'ing, so MSP'ing could be considered to have both evolved from MPAs and be synergistically co-evolving in parallel with MPAs [20]. However, the recent focus on blue growth has led to the new variant of integrated-use focused MSP'ing, leading to a more divergent evolutionary path, whereby integrated-use focused MSP'ing could be considered to be antagonistically and divergently evolving away from MPAs, leading to potential competition between integrated-use focused MSP'ing and ecologically coherent networks of MPAs as essential

components of ecosystem-based MSP'ing. This is consistent with recent findings from the Mediterranean that the current "blue gold rush" is undermining the achievement of GES and related objectives to designate 10% of the sea as effective and connected MPA networks, and that there needs to be a shift to ecosystem-based MSP'ing which could promote MPA networks as an essential component of achieving both GES and sustainable blue growth [32].

A common factor in all these case studies is that there are tensions between blue growth and GES, particularly given the recent prioritisation of blue growth by DG MARE, this often being eagerly embraced by Member States, in order to contribute to recovery from the global financial crisis (2007–08). This also reflects a wider political agenda across the European Union whereby the EC is seen as a body that should interfere less with the decisions taken by Member States, including decisions related to whether economic development priorities should over-ride environmental protection priorities. At a conceptual level there could be co-evolutionary links between integrated-use MSP'ing under the DEFMSF which provides for sustainable blue growth, and ecosystem-based MSP'ing under the MSFD which provides for GES, including the development of effective and coherent networks of MPAs which help achieve GES. However, the case studies and related findings indicate that the prioritisation of blue growth could be leading to divergent evolution and tensions, even competition, between policies for blue growth and GES.

#### 4. Conclusions

Whilst the concept of MSP'ing is well established and widely recognised in theory, the realities of MSP'ing have been explored less. This paper takes an empirical approach to explore these realities, based on 12 case studies around Europe and related case studies from the literature. These case studies indicate that MSP'ing is often focused on achieving a specific sectoral objective, related to nationally important strategic priorities, rather than having a broader focus on a diversity of objectives. Other objectives were considered as part of the MSP'ing processes, but the strategic sectoral objective was the over-riding priority of the processes. As such, MSP'ing often more represents strategic sectoral planning, i.e. a process that focuses on a particular maritime sector in order to achieve specific strategic objectives. Conflicts are often not resolved or 'planned away' in that trade-offs and compromises tend to be aligned to ensure that the strategic sectoral objectives are achieved, the distribution of losses and wins often being closely related to the over-riding importance of the specific objectives that strategic sectoral planning is focused in achieving. This is very different to the theoretical concept of MSP'ing as being focused on achieving a diversity of objectives and consensus on priority actions, and very different to the theoretical concept of ecosystem-based MSP'ing, with its key focus on achieving environmental sustainability and GES.

The case studies also indicate that MSP'ing processes tend to be complex, fragmented and emergent on an *ad hoc* basis, rather than cyclical, adaptive, holistic and prescribed on an *a priori* basis. There were stages or elements of the case studies that were more step-wise and participative, but these were limited in their actual influence on executive decisions, leading to frustration amongst some stakeholders at the *ad hoc* role of such processes. The case studies also indicated that top-down processes tend to dominate, more deliberative and participative platforms tending to be 'disconnected by design', with little influence by wider stakeholders on decisions taken by executive authorities, leading to criticisms by some of the minimal influence of such tokenistic 'talking shops'. The tendency to top-down approaches is partly related to the

importance to central governments of ensuring that strategically important projects are permitted to go ahead, rather than being undermined by the potentially conflicting priorities of other stakeholders. Whilst the rationale and logic of deliberative step-wise approaches involving stakeholder participation is compelling at a conceptual level, their applicability in reality would appear to be limited by the *ad hoc*, complex, sectorally fragmented and top-down characteristics of the structures and processes of actual MSP'ing, which are more focused on strategic sectoral planning.

The case studies also indicate that blue growth is the dominant priority, often aligned with strategic sectoral planning priorities, despite growing indications that the target for GES by 2020 is unlikely to be met. This exacerbates concerns about tensions, even conflicts, between the DEFMSF and the MSFD. Whilst there could be co-evolutionary links between integrated-use MSP'ing under the DEFMSF which provides for sustainable blue growth, and ecosystem-based MSP'ing under the MSFD which provides for GES, these findings are consistent with concerns that blue growth focused integrated-use MSP'ing seems to be divergently evolving to the point where it is competing with ecosystem-based MSP'ing and its essential component networks of MPAs.

MSP'ing is, as the definition [1] above recognises, ultimately about achieving political objectives, these typically being aligned more with blue growth than GES. Real-world MSP'ing (as opposed to some of the more idealistic theoretical concepts underpinning discussions in the academic literature) is arguably more about political expedience than it is about conceptual ideals of proactive, consensual and ecosystem-based approaches to MSP'ing. This political expedience is evident in the continued focus on strategic sectoral planning, on *ad hoc* MSP'ing processes in which sectoral conflicts remain, and on top-down decision-making approaches from which participative platforms are disconnected. Whilst the theoretical and conceptual ideals of participative ecosystem-based MSP'ing as discussed in the literature are compelling, the findings of this study indicate that it is important to critically analyse actual MSP'ing initiatives, otherwise optimism that these ideals have been achieved because an increasing proportion of the world's seas are covered by MSPs [33] could be misplaced and even confounded.

Perhaps a co-evolutionary research approach should be taken, whereby conceptual approaches which integrate sustainable blue growth and GES co-evolve with MSP'ing practices through critical analyses of whether the realities of MSP'ing are consistent with these concepts. Studies in MSP'ing would appear to be evolving from their earlier focus on ideal MSP'ing concepts towards more critical analyses of the realities, particularly given the growing neoliberal dominance of the blue growth agenda against a background of growing concerns about the health of marine ecosystems. The findings of this study hopefully will contribute to the shift to a more co-evolutionary approach to studies of MSP'ing. From a theoretical perspective, MSP'ing concepts can be developed that address the challenges of achieving ecosystem-based MSP'ing which integrate sustainable blue growth and good environmental status. From an empirical perspective, analyses of MSP'ing practices can be undertaken that critically analyse whether the realities of MSP'ing are consistent with the concepts, and that contribute to the development of these concepts. At present it would seem that the realities of MSP'ing are veering towards blue growth, as the ideals of MSP'ing concepts are undermined by the realities of political expedience. A steer towards a more co-evolutionary path is essential.

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