

BRIDGING THE LAND & SEA DIVIDE THROUGH CLOSER SPATIAL PLANNING INTEGRATION

A Case Study of the Shetland Islands, Scotland



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Masters Thesis

Masters Thesis
June 2017

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ACKNOWLEDGEMENTS

First and foremost, I would like to thank my parents and my family for their continued support and for giving me a *boost* when necessary. I would like to thank my supervisors, Professor Richard Cowell and Professor Pieter Leroy, for their advice, guidance and timely responses to my queries. I also would like to express my gratitude to the interview candidates who, despite being busy accorded me their time and attention. Additionally, I would like to recognize Kira Bre Clingen (and her partner)'s invaluable contributions to the production of the figures. Lastly, I would like to acknowledge the hard work of my proofreaders who helped me weed out my flowery language, and without whom, this dissertation would surely have exceeded the word limit.

SUMMARY

Integration has become an integral element of the contemporary planning paradigm. Against this theoretical background, this contribution of qualitative research aims to understand how integration occurs in practice and its application in remediating the land and sea divide by examining the links between coastal and marine spatial planning. This research invokes discourse analysis, in order to transition from a hypothetic treatment of integration so as to suggest pragmatic solutions by focusing on explanatory variables and causal mechanisms that impact integration. Using the Shetland Islands as a case study, documentary analysis complemented by a series of interviews, granted access to both the public rationale and opinions of key actors on the subject. This research contends that integration is best understood by examining how it is framed and dissecting it into its dual conception (internal/external) and associated dimensions (coordination, cooperation and compatibility). The results indicate that all three dimensions are influential in shaping the concept, but there exist divergences in the framing of spatial planning integration. The effect of the explanatory variables, is contingent upon the causal mechanisms. Accordingly, institutional and management factors were perceived as prominent facilitators for closer spatial planning integration, that could help bridge the land and sea divide.

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LIST OF ACRONYMS

CBD	Convention on Biological Diversity
CP	Coastal Planning
DEFRA	Department of Environment Food and Rural Affairs
EEZ	Exclusive Economic Zone
EC	European Commission
EIA	Environmental Impact Assessment
EPI	Environmental Policy Integration
EU	European Union

FIMETI	Fair Isle Marine Environment & Tourism Initiative
HM GOVERNMENT	Her Majesty's Government
ICM	Integrated Coastal Management
ICZM	Integrated Coastal Zone Management
IMP	Integrated Marine Policy
LWM	Low Water Mark
MS	Member State
MSP	Marine Spatial Planning
NPPG	National Planning Policy Guideline
RTPI	Royal Town Planning Institution
RSPB	Royal Society for the Protection of Birds
SEA	Strategic Environmental Assessment
SNH	Scottish Natural Heritage
SIMSP	Shetland Island Marine Spatial Plan
SSMEI	Scottish Sustainable Marine Environment Initiative
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific & Cultural Organisation
UNCLOS	United Nations Convention on the Law of the Sea

CHAPTER I: INTRODUCTION

The unrestricted quality of system flows in the natural environment is rendered more complex by human intervention and global climate change trends (Douvere, 2008; Rodriguez, 2017; de Juan et al., 2015). Other factors such as: technological innovation, population booms, increased consumer demand for seafood, offshore resource extraction, the rise in aquaculture enterprises, and increased tourism have amplified the demand for oceanic and coastal spaces. These activities have differential objectives and are in competition for the limited resource of marine and coastal space. Additionally, the incompatibility and overlap of these ocean-uses and is producing numerous undesirable effects. The myriad of environmental issues occurring in the coastal and marine zones includes, but are not limited to: increased pollution, the destruction of sensitive habitats and the depletion of finite resources (Gallagher, 2010; Douvere, 2008). Therefore, a framework of solutions is required for resolving the issues at present and is necessary for addressing the inefficiencies that previous stratagems either produced or were unsuccessful at reconciling.

Integrated approaches are often *heralded* as effective instruments for addressing interrelated issues related to overseeing development in coastal and marine spaces (Vigar, 2009). They can provide a moderating effect that extends to effectively manage and diminish the conflict for marine and coastal resources between users and activities. Integration was first introduced to coastal planning (CP) in the 1970s with the advent of integrated coastal zone management (ICZM). Ever since, integration has gained traction in the public policy domain (Queffelec, Cummins & Bailly, 2009). Marine spatial planning (MSP) has recently been developed and includes integration through its adoption of the ecosystems-based approach as a core tenet of the planning regime. The ecosystems-based approach accentuates the significance of integration because it is founded on the principle that since “the nature of nature is integrated [...] we must take a holistic approach to nature” (Misund, 2006, p. 1). The considerations for integration extend beyond the management of ecosystems into the realm of spatial planning, both in its practical application, and resultant outputs. As such, the subject of integration between the planning regimes on land, in the coast and at sea should be of interest. Integration becomes an especially fruitful lens for study within the context of declining biodiversity, the unparalleled vulnerability of island topographies, and the impending threat multiplier to human environments and livelihoods posed by climate change (Klein, 2015; McKibben, 2007).

I.I CONTOURS OF THE DIVIDE

MSP has only recently emerged as a planning domain, nonetheless, scholars have recognised that it is required to incorporate the frameworks relevant to land planning or terrestrial spatial planning (TSP) and CP, or vice versa (Cicin-Sain, Knetch, Jang & Fisk, 1998; Jay, 2012; Portman, Esteves, Le & Khan, 2012; Meiner, 2010). In Europe, these recommendations are not being implemented to the degree expressed as requisite. These findings were reflected in a European Union (EU) stakeholder consultation carried out in 2011. Most participants expressed the value of having two distinct processes and systems for planning marine and coastal regions, but paradoxically, there was a consensus that the regimes and associated conventions should be unified (European Commission, 2011). Further complicating matters is the fact that the ICZM has been relegated to a recommendation within the EU policy framework with member states (MS) being *invited* to implement it, which does not bode well for the possibilities of integration (Queffelec, Cummins & Bailly, 2009).

Although spatial planning suggests that that space be considered and managed holistically a full merger of the two planning regimes is unlikely (Kerr, Johnson & Side, 2014). Closer integration is perhaps what spatial planning strives for, however there is a separation between land and sea. To accurately qualify this gulf that seemingly occurs at the coast, the terminology of *divide* was selected to characterizes the separate quality of the supposed integrated spaces. Remediating the gap between CP and MSP could be the missing link for appropriately coordinating land and sea development (Beriatos & Papageorgiou, 2011;

Queffelec & Maes, 2013). This is crucial since marine environments are currently stressed, yet they are responsible for providing many ecosystem services, which numerous species, including humans, are dependent upon for survival (Constanza et al., 1999).

I.II RESEARCH OBJECTIVES

The objective of this research is to investigate the land and sea divide. The relationship of these ecosystems and value of viewing them as integrated has been researched by natural scientists. This dissertation is founded on this scientific rationalism, but represents an attempt to remediate the gap between science and social science by examining the social perceptions of integrating the associated planning regimes. By comprehensively examining the topic of integration in the United Kingdom (UK) and Scotland as it relates to the Shetland Islands, the scope for closer integration between CP and MSP can be assessed with the potential implications of diminishing the land and sea divide.

I.III RESEARCH QUESTIONS

Now that the background information has been presented, the rationale has been explained, and the aim of the research has been outlined, the ensuing questions have been formulated to frame and further guide the enquiry:

- (1) What version(s) of integration is/are being promoted?
- (2) What are the drivers and/or inhibitors of integration?
- (3) What are the perceived advantages and disadvantages for improving integration between CP and MSP in the Shetland Islands?
- (4) What are the attitudes of the key actors towards integration and what is their understanding of what integration involves?

CHAPTER II: SOCIO-POLITICAL CONTEXT

II.I BRIEF HISTORICAL OVERVIEW OF THE EVOLUTION OF MSP & ICZM

By reviewing the development of ICZM and MSP, it is possible to understand how the disciplines have been broadly shaped and how this translates to their subsequent implementation on a national and sub-national level. For a more succinct description of the actions that have spurred the development of ICZM and MSP, see Appendix A.

International Interest in MSP Trickles Down to The Union

The most significant international legislation responsible for advancing interests in MSP are the United Nations Convention of the Law of the Sea (UNCLOS), the Convention on Biological Diversity (CBD), Agenda 21, and the World Summit on Sustainable Development Plan of Implementation (Douvere & Ehler, 2009). Specifically, with regards to MSP, this tradition was created as a management tactic for environmental conservation. Particularly, Australia is considered the pioneer of this initiative with the creation of the *Great Barrier Reef Marine Park Act* in 1975. This act appointed an Authority to assure the sustainable use, education, and enjoyment of the Marine Park, with the overriding duty of ensuring the conservation of the Great Barrier Reef (Schaefer & Barale, 2011; Great Barrier Reef Marine Park Authority, 1985). Following this original initiative, in 1982, UNCLOS acknowledged that holistic ocean management was imperative. Scott (2016) highlights the preamble as important, since it expresses that state parties of the convention are “conscious that the problems of ocean space are interrelated and need to be considered as a whole” (UNCLOS, 2009, p.25). Lately, the strengthening of a support network for MSP has been accredited to UNESCO workshops and other activities, complemented by publications written by prominent authors, such as Douvere and Ehler (Ritchie, 2014). The deliverables from these activities have been essential in spurring supranational interest among organisations, such as the EU.

Since 2005, the European Commission (EC) has been developing a strategy and vision for the use and management of Europe’s oceans and seas, under the auspice of a new *Integrated Maritime Policy* (IMP). The IMP is a “unique exercise in the history of ocean governance” (Koivurova, 2012, p. 161) because it is the first time that a supranational institution has assumed the role of governing such an initiative. This strategy broaches the management of maritime areas in an inclusive and holistic way, which will substitute the former antiquated compartmentalised resource management approach. The ambitions of the IMP are to oversee the sustainable development and regulation of activities occurring offshore in an overarching manner (Meiner, 2010). Particularly, IMP addresses cross-sectoral policy areas, such as *blue growth*, the acquisition of marine information, strategies and planning of seas and oceans, as well as offshore surveillance (European Commission, 2017). The IMP Blue Paper was sanctioned by the Council in 2007, with many positive developments, such as the introduction of innovative frameworks, the elimination of inefficiencies, and the exploitation of synergies in marine-related policies (Koivurova, 2012). In addition to promoting integration in governance, the IMP incites MS to commence MSP, and for these planning initiatives to be coordinated with ICZM (Rees et al., 2013).

National Enthusiasm Towards the Changing Tides in Sea Management

The changing tides towards MSP in the UK, has been speedy, since they are considered one of the trailblazing MS by measure of MSP implementation. (Jay, 2010; Smith, Ballinger & Stojanovic, 2012). Some of the milestones include the adoption of the *Marine and Coastal Access Act* in 2009, and *Scotland’s Marine Act* in 2010. In 2004, the Department of Environment, Food & Rural Affairs (DEFRA), released its revamped strategy for managing marine activities in its 5-year plan. The UK’s approach to MSP is dissimilar to other leading MS, since “new legislation for MSP that applies to each administration’s territorial and offshore waters out to the Exclusive Economic Zone (EEZ)” has been instituted (Ritchie, 2014, p. 666). What renders this a differentiated approach is that the priority is placed on assessing spatial planning objectives, byway of a joint *National Marine Policy Statement*, which was issued in

2011. Each country within the UK has its own organisation responsible for further reinforcing cooperation between devolved authorities and maintaining adherence to the overarching domestic legislation (Ritchie, 2014).

At the devolved level, Scotland, through the Marine Scotland directorate, has been active in initiating MSP through the establishment of marine regions, as prescribed by the National Marine Plan (Smith & Brennan, 2012). Scotland's marine area has been divided up into 11 regions, with jurisdictional coverage out to 12 nautical miles (The Scottish Government, 2017a). This decentralised governance system will be managed by marine planning partnerships that will be composed of a variety of stakeholders. These accomplishments were subsequent to the commencement of the Scottish Sustainable Marine Environment Initiative (SSMEI) commenced, which began. In 2006 the Shetlands were among the pilot regions selected (Shucksmith, Gray, Kelly & Tweddle, 2014). Since, the Shetlands have made significant progress and their SIMSP has achieved an unprecedented legal status (Shetland Island Council, 2014).

The Surge in ICZM Approval

Prior to the development of ICZM, single-sector approaches were employed; but, these tactics were unsuccessful in managing a multifaceted system such as the coast. ICZM was conceived as an approach to unite development projects and activities in the coast under a national goal set (Post, Lundin & Mundial, 1996; Allmendinger, Barker & Stead, 2002). The idea was initially developed during the 1992 Rio de Janeiro Earth Summit, byway of Agenda 21. (UNCED, 1992; Gopnik et al., 2012). Of particular interest is Chapter 17 of this agenda, which focuses on the conservation and protection of marine and coastal zones. The global importance of adequate management measures for both coastal and marine resources was further stressed in the 2002 World Summit on Sustainable Development, together with the Rio+ 20 Conference (Cicin-Sain et al., 2014).

The EU became a proponent of coastal and marine management, and as a result, there are a wide range of policies and legislations that have ICZM implications. The 1992 Earth Summit began the development of ICZM policy in the EU. Then, the European Commission held a *Demonstration Programme on ICZM* from 1996 to 1999; this initiative helped solicit ideas, encouraged discussion around ICZM planning, and use, so that accord on management practices could be established (Ballinger, Cummins & Smith, 2010; European Commission, 2016; King, 2003; Sano, Gonzalez-Riancho, Areizaga & Medina, 2010). The resulting outputs of this programme included the formal adoption of the *Recommendation of the European Parliament and of the Council of 30 May 2002 Concerning the Implementation of Integrated Coastal Zone Management in Europe (2002/413/EC)* (European Commission, 2016). This recommendation proposes a strategic method "based on the integrity and functioning of the ecosystem and on sustainable natural resource management in the marine and terrestrial components of the coastal area" (Golumbeanu & Nicolaev, 2015; Shipman & Stojanovic, 2007).

By 2006, MS were being encouraged to formulate domestic schemes for ICZM, and the consequential strategies proved to be varied as a function of the Union's principle of subsidiarity. This principle provides that the responsibility for implementation and policy responses are relegated to national and sub-national authorities (Allmendinger, Barker & Stead, 2002). Consequently, the level of progress in ICZM between nations is varied, as represented by divergent national stock takes. This progress can range from a clear plan with an appointed authority, to virtually no provisions for coastal management, or a very weak governance approach and associated frameworks. In 2014, the European Commission adopted the directive for *Establishing a Framework for Marine Spatial Planning (2014/89/EC)*. This provision requires each Union member to appoint an agency responsible for complying and aligning with the IMP (Council Directive, 2014/89/EC, 2014). The commission currently considers ICZM to be an element of this IMP (Sano et al., 2010). These achievements, and the continued interest in ICZM, have been eclipsed by its non-statutory nature within the union. Although MS might have noble intentions to implement ICZM, the problematic designated

supra-national framework has led to negligence in this planning area (Shipman & Stojanovic, 2007).

ICZM in the UK

In the UK, ICZM garnered more significance in 1992 with the *House of Commons Environment Select Committee Inquiry on Coastal Zone Planning and Protection* (Cooper, 2011; Ducrotoy & Pullen, 1999). This was fundamental in promoting coordination and cooperation among governmental agencies, as well as public and private sectors. This was perhaps only a political exercise, since a review that was prompted by these changing currents in coastal management approaches launched in 1993 determined that the previous sectoral method was satisfactory (Ducrotoy & Pullen, 1999). In 1999, Dorset was the only region assessed as having properly implemented ICZM (Shipman & Stojanovic, 2007). The planning system in the UK appears to embrace ICZM status as a mere recommendation, since there is a lack of leadership and a strategic overarching formal framework for the coast (Rupprecht Consult & international Ocean Institute, 2006). A holistic approach and a rebalancing of power was requested by civil society agencies. Local authorities, charities, and conservation organisations have begrudged the non-statutory nature of ICZM in the UK, but are proponents of national coordinated CP to replace the current fragmented approach (Ritchie, 2014).

In response, Integrated Coastal Management (ICM) in the UK has utilised a bottom-up grassroots model by enlisting the help of voluntary participants, but has contributed to an inferior governance model (Stojanovic & Ballinger, 2009; Tassuik, 2007). The sentiment of reticence to overhaul the current delivery of CP in order to mandate ICZM was expressed in the Final Stocktake, where the findings indicated that “not every inch of the UK coast needs ICZM to be set up” (Atkins, 2004, p. 94). According to an article that examined the delivery of ICZM through land planning in three Scottish case studies, it can be extrapolated that ICZM has only been partially realised. Scotland has officially recognised the interconnection between land and sea activities and the National Planning Policy Guideline (NPPG), distinguishes between the various types of coastal: the isolated, undeveloped, and developed coasts (Allmendinger, Barker & Stead, 2002).

Although the spirit of the recommendation may be taken on board, ICZM does not appear to be in full effect at the MS level. This is probably a symptom of the fact that CP in the UK operates under TSP. Consequently, there may not be a need for a specific regime for managing the coast, since spatial planning can be applied to “any activity with a spatial or geographical dimension” (Taussik, 2007, p. 612). This landward planning system was shaped by incremental legislation developed in response to specific issues. Additionally, it is the concern of many stakeholders who are involved in the consultation process, which complicates the tasks (Taussik, 2007). Due to these concerns, it is preferable to refer to the planning activities of the coast under the broad umbrella of CP.

II.II THE LAND & SEA DIVIDE

There are fundamental disparities that exist between land and sea, which have contributed to the *gulf* between the planning relevant to each landscape. Kerr, Johnson, and Side posit that a “full merger of marine and terrestrial planning into a unified system may be unattainable” (2014, p. 118). Even so, integration remains a significant consideration, since there are binding similarities that have contributed to the development of both forms of planning (Kidd & Ellis, 2012). It is necessary to critically analyse the current conceptualisation of planning as spatial planning is perceived as the vehicle for possible wider integration (Vigar, 2009).

Comparison of the Landward-Side & Sea-Side of the Divide

Both TSP and MSP are based upon the need for the management of negative externalities that are produced by unregulated development. In the 19th century, land planning was an altruistic response to eradicate squalor and improve the living conditions of those inhabiting industrialised urban areas (Kidd & Ellis, 2012). Although couched in a dissimilar discourse, MSP originated as a means to address the mounting international concerns of

anthropogenic impacts in the marine environment. Kidd & Ellis (2012) propose that TSP and MSP are similar in their conception as resource conflict resolution tools that are by-products of technical rationality, which advocates for the economic motivations that initially served as justifications for the initial intervention.

There are three key divergences that constitute the land and sea divide, especially with regard to planning: “building blocks, development control and conservation” (Kerr, Johnson & Side 2014, p. 122). The building blocks of terrestrial planning are based on the ideal that planning is considered the chief tool for distributing land resource (See Table 1). TSP functions within a market, whereby land ownership is asserted through the trading of property rights. The land planning system is a free market exchange, and thus cannot exercise

	Terrestrial Spatial Planning	Marine Spatial Planning
Building Blocks	▪ Manages individuals rights and is based on private property and land ownership rights ▪ High level anthropogenic intervention	▪ Less individualist manages more common claims ▪ Mostly wilderness
Development Control	▪ Origins date back to the WWII ▪ Zoning is a significant tool utilised in land planning ▪ Plans and permitting are the key tools utilized	▪ More recent invention ▪ More holistic measure are utilised that are in keeping with sustainable development ▪ Assessments are significant tools being used
Conservation	▪ Usually well defined and function sites of conservation ▪ Well understood and researched natural environment ▪ Conservation efforts are based on scientific findings	▪ Problem identifying conservation priorities ▪ Unexplored and less researched natural environment ▪ Relies on supra-national and international legislation to shape conservation efforts

Table 1: Comparison of TSP & MSP Characteristics (Elaborated by the Author)

absolute control in determining use. Whereas sea management is based on a less individualistic reasoning, it was created in order to manage common rights, such as fishing, navigation, and shipping. In the UK, the management of the seabed is the responsibility of the government, but it is an initiative conducted in consultation with the public and is practiced on their behalf. Sectoring and zoning are doctrines of the well-developed rationalist approach to the landward planning discipline. MSP is a more modern invention that favours holistic ecosystems-based approaches focused on balancing environmental conservation and economic development objectives. Conservation as an identified differentiated feature is contingent on the variations between the bio-physical changes and availability of knowledge on the ecosystems (Kidd & Ellis, 2012). Land is static and so it is simpler to study, establish, and respect conservation areas. Conversely, due to the dynamic and three-dimensional nature of the marine environment, it is difficult to determine and create priorities in terms of conservation. Further complicating matters, the vastness of the marine environments has infringed on possibilities for scientific study of these spaces, which could better inform conservation objectives (Kerr, Johnson & Side, 2014). Beyond these differences, the disciplines operate with distinctive models of governance and legislative framework, with some cross-over between the two occurring particularly in the coast, which may hold clues on how to foster closer integration and remediate the divide.

Intersection of Land & Sea

In the UK, the spatial jurisdiction of TSP has not been challenged since its inception. This land-use planning system is attached to dry-land, with legal implications up to the shoreline, which is also specified as the low water mark (LWM). There is no absolute

delineation defined, since there is the possibility of seasonal and weather related variations (Jay, 2010). There are some extenuating circumstances that may preclude adherence to this boundary by a local authority, such as regions where there are intimate interpenetration of terrestrial and marine systems. The line of demarcation may be marginally extended in order to include features such as swamps, channels, streams, etc. By and large, the LWM has attained an “iconic status as the boundary beyond which local government including local planning should not trespass” (Jay, 2010, p. 175). This implies that coastal planning is filed under the jurisdiction of local landward authorities, and the official guidance is explicit, as it mentions that the general rule is that the coastal zone is limited in the maritime direction by the LWM.

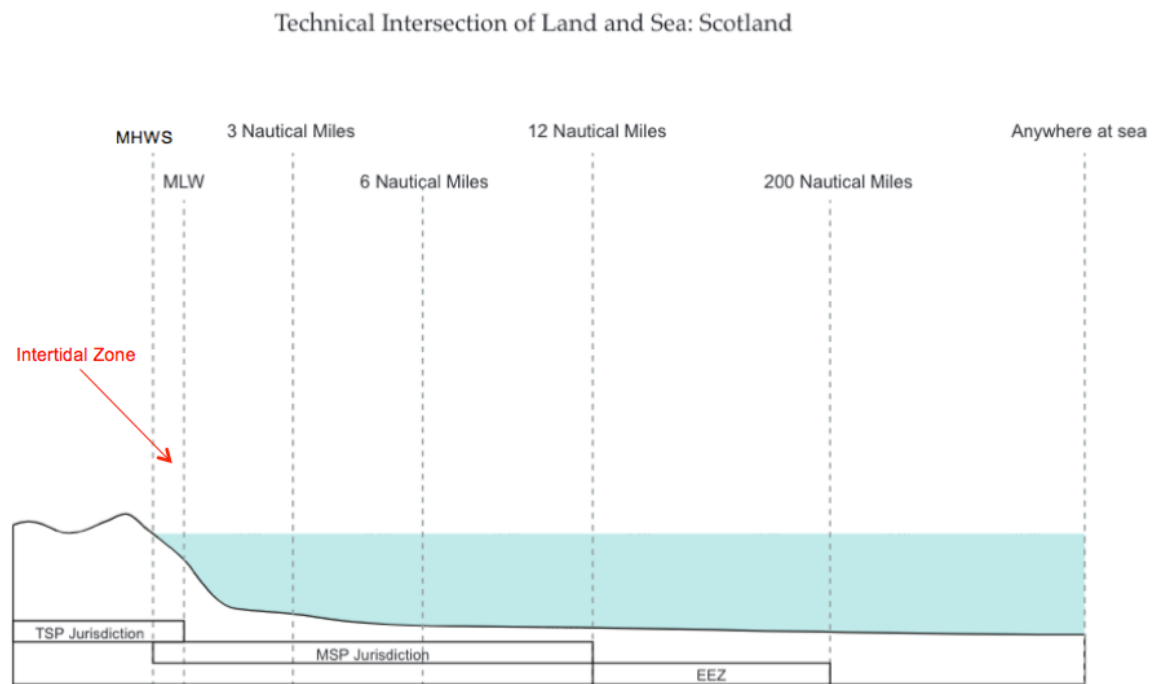


Figure 1: The Technical Intersection of Land & Sea (Adapted from Atkins, 2004, p. 53)

There exists a technical intersection, between the two planning regimes in the intertidal zone (see Figure 1). As to be expected since coastal management in the UK operates under the responsibility of terrestrial planning, the jurisdictional boundary extends to the Mean Low Water Springs Mark (MLWSM), which includes the shoreline, whereas the boundary for MSP in Scotland encompasses the territory until the High Water Springs Mark (HWSM) (The Scottish Government, 2015). As a result, there is cross-over between the planning powers in the inter-tidal area (NAFC Marine Centre, 2015; The Scottish Government, 2015). The overlap in the technical delineations serves as a rationale for promoting closer integration, and likewise, these planning provisions should be a natural consequent for planners and stakeholders to engage across the disciplines and associated sectors. The coast is identified as a territory and attention should be directed towards closer integration of the coast through ICZM or CP. This focus is pivotal since the 2006 Rupprecht Report, which is responsible for assessing ICZM progress in Europe, found that the absence of land-sea integration was problematic for ICZM (Queffelec & Maes, 2013). It is useful to next examine the evolution and paradigm shifts of planning that have resulted in integration being a prime feature of the newer planning disciplines.

II.III THEORETICAL DEBATES ON THE PLANNING PARADIGM SHIFT

The debate surrounding the evolution and shifts in the planning paradigm requires critical contemplation, as developments in landward planning have influenced the emergence

of MSP as a unique planning regime. Needham reckons that the planning paradigm has shifted from rationality *being* the paradigm, as well as the reasoning behind the adopted methodology, to rationality *serving as a premise* for the new spatial planning paradigm, which he has coined a *design discipline* (Needham, 2000). In opposition, Kidd and Ellis (2012) present a timeline that indicates the current planning paradigm as having advanced leaps and bounds from Needham's characterisation of planning as a design process (see Figure 2).

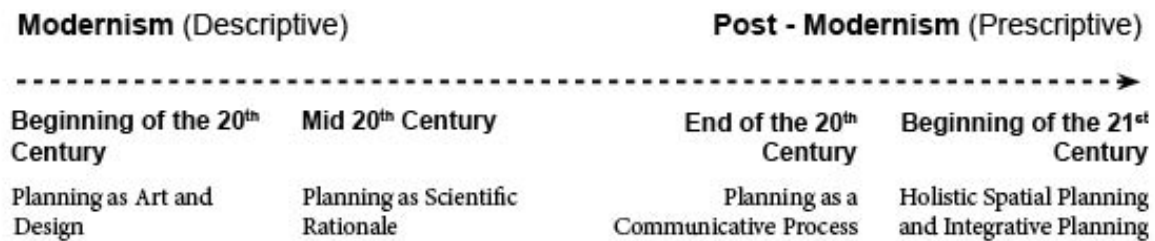


Figure 2: Summary of the Shifts in Planning Paradigms (Adapted from Kidd & Ellis, 2012, p. 54)

The initial phase of planning being conceptualised as a design discipline was due to the inextricable links to the design domains, such as engineering and architecture. However, this was swiftly challenged by the emergence of planning as rooted in science, rather than the product of a creative process (Kidd & Ellis, 2012). The planning paradigm of scientific rationality was then challenged by theorists arguing that in practice, most planning circumstances are restricted in terms of resources, and therefore, adopt a “piecemeal, incremental, opportunistic, pragmatic politicised process.” Another critique to the rational and science planning logic was the multifaceted and complex nature of *wicked problems*. This led to the recognition that planning circumstances cannot be delimited due to the ever-evolving and complicated nature of their interactions and relationships. Coincidentally, these arguments arose in tandem to the shift in philosophy to post-modernism. In the conception of planning as design and science, there was an unchallenged implicit hierarchy of power, which placed the planner as the technocrat responsible for decision making for the greater good of society. This recognition of the inherent value judgments, encapsulated in the format of planning with the planner at the helm, also produced a shift in regarding planning as a prescriptive activity with an interventionist role (Kidd & Ellis, 2012).

In order to address the emerging recognition of planning as a political process, the paradigm again shifted to reflect the role of a planner as an arbitrator of interests and desires and produced a more collaborative perspective. This formulation of planning was conceived to address complex planning concerns that cannot be compartmentalised into sectors, and transcends arbitrary territorial boundaries. Out of the communicative paradigm spawned the latest paradigm of spatial planning. This conception of planning was part and parcel of the negotiations and debates that have traditionally fuelled the planning discourse. Spatial planning, instead of sitting at the end of a spectrum, was perhaps better suited to be placed in the mid-point surrounded by the various paradigms discussed (See Figure 3), since it was shaped by the previous paradigms and acted as a mediation between the discourses (Kidd & Ellis, 2012). This research embraces Kidd and Ellis's (2012) position on the planning paradigm since spatial planning encompasses an amalgam of the various previous paradigms, and the connotation of spatiality implies a holistic and integrative approach to planning as a discipline.



Figure 3: Alternative Framing of Spatial Planning (Adapted from Kidd & Ellis, 2012, p. 56)

Corresponding Emergence of MSP & ICZM

The shifting paradigm has provided an opportunity for disciplines such as ICZM and MSP to emerge. A change has occurred in maritime management to include more spatial considerations, which corresponds to the interest in the *colonisation* and *appropriation* of the seas (Jay, 2010). In keeping with this acceptance of this new paradigm, MSP has been conceived as a planning discipline effective in addressing: (i) the historic failure to safeguard sensitive marine ecosystems and species; (ii) arising conflicts within the marine area as a consequence of competition for scarce resources; (iii) innovation and technological advances producing more opportunities for economic development located offshore (Kerr, Johnson & Side, 2014).

ICZM is the most popular approach to coastal planning and by using the term integrated in the title expresses its deference towards the ideals of spatial planning. ICZM has been a dominant planning discipline much longer than MSP. As a result, unlike MSP, the new spatial planning paradigm has not prompted the development of the discipline, but has provided an opportune framework for the planning system to progress, while upholding the ideals of sustainable development (Queffelec, Cummins & Bailly, 2009).

II.IV SUMMARY OF SOCIO-POLITICAL CONTEXT

By reviewing the historical evolution of MSP and ICZM, it is possible to understand how the land and sea divide has been exacerbated by differentiated approaches to the management of these interconnected environmental resources. Most notably, the divergent legislative frameworks have contributed to a lackadaisical position towards ICZM in the UK. Perhaps this position is due to the geographical characteristics of the UK as an island, and the ubiquity of the shoreline. Nevertheless, the coast is not being neglected since CP is being achieved through TSP, which embodies integration, since it parallels with the ideals of the new spatial planning paradigm (Gazzola, Roe & Cowie, 2015). It is evident that MSP is influenced by developments in TSP; therefore, the tensions and divergences noted in the theories elucidates that the connection between land and sea is contingent upon how TSP is being conceptualized. This is problematic because TSP is a contested concept, which

presents the possibility that maybe the best approach for bridging the land and sea divide is through an integrative approach appended to the practice of spatial planning, rather than solely relying on spatial planning to achieve the objectives of integration. As such, a better grasp on integration theory is required, which will be treated in the following chapter.

CHAPTER III: CONCEPTUAL FRAMEWORK

III.I INTEGRATION

Integration Theory

Integration is ambiguous, both in its definition and in how it occurs in practice, and is often described as a unifying process that convenes the sum of separate parts constituting a whole (Portman et al., 2012). It is also considered an “umbrella term that encompasses a number of dimensions” (Kidd, 2007, p. 162). In its most distilled form, experts refer haphazardly to vertical and horizontal integration and often mentioned it in juxtaposition of one another. Vertical integration deals with the treatment of aligning at differing spatial scales or between the various ranks in government (Kidd, 2007; Degeling, 1995). Comparatively, horizontal integration is sometimes conflated with cross-sectoral integration and attempts to coordinate. Disseminating the essence of horizontal integration is difficult, since the literature is fuzzy and often presents conflicting definitions, but can be loosely defined as the coordinating across various public policy sectors, departments, agencies, organisations, etc. (Degeling, 1995; Snyman & Kroon, 2005). Some authors imagine this concept of horizontal integration and its application to spatial planning with the evocative term: *joined-up working*. According to Cowell & Martin (2003), in the UK, the central government is an impediment to the application of a joined-up approach, since departments continue to “operate along sectoral lines” (p. 160). This is problematic since fostering central coordination and eliminating the inefficient traditional and enduring method of operating within silos is a prerequisite for implementing this joined-up working.

The political aspect of joining-up is essential for analysing the inefficiencies related to coordination. Actors belonging to one sector often seek assistance or attempt to delegate certain aspects relating to their domain from actors from another sector. This harkens back to the point about accountability and nuanced designations of responsibilities, which can lead to further inefficiencies to the detriment of the pursuit of integration. It is imperative to examine the formulation of sectors and how these constructs are upheld through specific modes of knowledge, information and experience, unambiguous and enduring policy territories, and trends of resource appropriation (Cowell & Martin, 2003). Ultimately, the pluralist agenda of joined-up working requires careful examination, since it contains inherent power dynamics and there are numerous dimensions, implicit relationships, embedded discourses, political motivations, and a wide range of sometimes-conflicting objectives that can influence the application of integration in practice. In an effort to construct a clear conceptual framework, Kidd’s (2007) elaboration of the various versions of integration relevant for spatial planning, as well as Stead and Meijer’s (2009) categorisation of the components of integration, shall be utilised as a foundation for this discussion.

Components of Integration

Stead and Meijers (2009) present an ideal dissection and a review of their article, which includes the concepts of cooperation and coordination. The component of coordination is corroborated by Needham when he notes that “planning agenc[ies] should take account of any spatial planning being pursued by other public bodies for the same area” (2000, p. 447). Coordination diminishes inconsistencies, repetition, and lacunae within and across policies. Policy coordination can be assessed on a spectrum, and is an endeavour for increasing wider coherence in policy through the concerted alignment of actions. The lower levels of coordination could extend to instances where agencies are aware of other’s activities and attempt to reduce opportunities for interference or replication. On the upper end of the spectrum, coordination requests for gaps to be remediated through strict regulation with established measures for exercising jurisdictional power over a contested area (Peters, 1998).

Cooperation focuses on interactions occurring between agencies, particularly with regards to the relationships between the various administrative layers. The related concepts of collaboration and intergovernmental management can be classified under the umbrella term cooperation, since they both undertake some form of cooperative working for the shared

benefit of the agencies involved. The shared benefit that is harnessed through the output of cooperative working is often referred to as collaborative advantage. These harnessed synergies derived from the collaborative advantage further legitimise these associations and this type of working (Stead & Meijers, 2009).

Although the literature is muddled on whether coordination and cooperation are distinct concepts, the perspective of Stead and Meijers (2009) is that “there are distinct differences between coordination and cooperation, particularly in terms of outcome” (p. 323). Mulford and Rogers (1982) posit that the key difference lies in the fact that coordination is formalised and involves the input of more tangible resources. While cooperation can be formalised, it operates mostly through informal communication and requires more intangible inputs, such as time and effort (Stead & Meijers, 2009). These authors present integration, coordination, and cooperation as their umbrella categorisations, but they also discuss that coordination and cooperation are integral components of integration. Throughout their paper, and within the academic literature on the subject, a reference to compatibility is also made. Therefore, compatibility was deemed a very integral component especially for promoting greater policy integration. Since compatibility acts as a catalyst for deepening links and fostering interdependence, in this discussion, it can be appended to the conceptual framework as the third umbrella term.

Conceptions of Integration

Kidd (2007), drawing on other authors such as Jønch-Clausen and Fugl (2001), describes three categorisations of integration: organisational, territorial, and sectoral. Organisational integration is a prerequisite for both sectoral and territorial integration, but relates more broadly to the sectors that are operating within society that the government attempts to address (Lafferty & Hodven, 2003; Kidd, 2007). Again, this is a point of discussion at the EU level, since it is recognised that the success of integration is dependent upon the willingness to cooperate (de Boe, Grasland & Healy, 1999). As a result, this format of integration is perceived as a binding element that calls on the examination of participants’ mind-sets, as well as the analysis of organisational trends. There are three dimensions relevant to this format of integration. Firstly, strategic integration is an integral component of the umbrella concept of organisational integration, since there should be a marriage between spatial planning and current initiatives occurring within the space. Secondly, the delivery mechanisms of all organisations should be coordinated up with spatial planning, which is coined operational integration. Thirdly, and the most obvious, is the integration of the disciplines (Kidd, 2007).

Sectoral integration, sometimes referred to as cross-sectoral integration, is the last archetype applicable to spatial planning. It is focused on aligning and *joining up* of various governmental policy fields and their associated institutions, stakeholders, and agents within a given region and functions at various scales (Kidd, 2007). There is a dual idiosyncrasy associated with cross-sectoral, since it can mean the integration across various areas of public policy or elucidate the inter-agency component of integration. Whereas the inter-agency dimension, hinges on private-public and benevolent organisations and requires acuity in the formulation of governance and the intricacies attached to the public policy process (Kidd & Shaw, 2007; Cowell & Martin, 2003), the sectoral style of integration mainly encapsulates horizontal integration and is concerned with fostering linkages between societal and state agencies.

Kidd and Shaw (2007) interpret Jønch-Clausen’s and Fugl’s (2001) concerns about integration as belonging to either one of two classifications. There are those that are issues relevant to natural systems, which in the case of CP and MSP would encompass species migration, ecological health, water quality, and coastal erosion, among other phenomena. The second classification is for issues associated with the human systems, influence of resource use and management, and the creation of pollution and waste (Kidd & Shaw, 2007). The existence of these two categories cannot be disputed; however, the level of integration evident in natural systems is perhaps an indication of the scale and scope of coordination,

cooperation, and compatibility required on the human-side of things. Although, commentators may embrace the logic that the integration evidenced in nature should provoke a similar level of integration in human affairs. In reality, this rarely comes to fruition, and special attention is required as to the reasons why.

A temporary digression from the theoretical discussion of integration permits for an examination of its practical application and purported mechanisms. Portman and her collaborators (2012) examined some mechanisms of integration that are applicable to ICZM, which could also *hold water* with MSP in practice, such as Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA). Linked to this discussion of tools, some consider MSP as a mechanism for achieving integration in ICZM (Portman, 2011). This is problematic, since MSP as a discipline has developed in its own right and should no longer be consigned to simply being a tool for ICZM practice. Rather, it should be recognised that it is its own domain with applications to aiding overall integration. Next, it is necessary to critically examine what is involved and the alternative ideals in order to fully grasp the ramifications of integration in practice.

III.II CRITIQUES & CHALLENGES OF INTEGRATION

Integration discourse is a long-standing component of policy planning, and although its significance appears self-evident, there are multiple issues surrounding this topic that affect implementation. As the previous section revealed, many commentators are integration advocates; however, they can be criticised as simply championing integration, rather than asserting how it should occur substantively. Since integration is perceived as wholly good, especially for sustainable development, like Degeling (1995) asserts, it is necessary to adopt a more critical stance, so as to establish how integration as a concept is made operable.

Critiques of Integration

Since integration can occur in a variety of directions, and materialises as different forms, the uploading and downloading across sectors is not always equal. Environmental Policy Integration (EPI) is one such practice, which advocates for the integration of the environment sector with traditionally non-environmental sectors in the pursuit of sustainable development (Lafferty & Hovden, 2003). The ambitions of EPI can be viewed as conflicting, since it strives for a balance between objectives of differing sectors, but is primarily concerned with preserving the carrying capacity of nature and to stave off environmental degradation. This then begs the question whether there is a balance, in the discussion of integration, or whether the environment is considered a priority (Lafferty & Hovden, 2003). In order to reduce the potential damage, environmental objectives must be viewed as principled. Although EPI was born out of neglect for environmental considerations, this genre of integration encompasses a subtle favouritism towards the environmental sectors. This characteristic penchant should be recognised as a potential irritant to the overall process of policy integration, since it does not conventionally endeavour towards a neutral conception of equilibrium (Lafferty & Hovden, 2003; Derkzen, Bock & Wiskerke, 2009).

Integration is sometimes critiqued because those involved in the process sometimes ignore the institutional work involved. There are very few expert studies and academic reports in the literature that examine the implications of what is a measure of successful integration and what should be considered when applying it (Derkzen, Bock & Wiskerke, 2009). To override some of these critiques, it is valuable to examine the more technical processes surrounding the integration of sectors and disciplines. It is imperative to consider what characterises these domains as distinctive.

Sectoral Realities: A Challenge to Integration

Sectoral realities are usually the crux of the sectoral cooperation and are notoriously difficult to overcome to institute integration. Degeling (1995) poignantly describes this conundrum by stating “because we have to deal here with naming by means of framing, the latter (also the former) becomes so disguised as to become almost invisible” (p. 293). The

appellation of a bounded socio-political phenomenon as a sector yields noteworthy discursive side effects. It undermines the implicit processes and distils the connections to other sectors by confining the sectoral considerations to a delimited boundary. This boundary actually mediates what is considered relevant and important and what is excluded and distanced, with regard to the sector. The act of sectoring is considered a mechanism for preserving the distinctive nature, besides also further distinguishing the differentiation between sectors. This can be detrimental to the treatment of societal problems, since it effectually induces fragmentation and limits actor and stakeholder participation in planning, management, problem solving, and decision-making of those designated boundaries of that particular sector (Degeling, 1995). Ironically, sectoring is perhaps a function of the current spatial planning paradigm. Although spatial planning is concerned with being holistic, it is also linked to geographic space in an effort to shape the cultural, economic, and environmental goals (Kidd & Ellis, 2012). This central focus on space is perhaps what upholds the status quo of sectoring. Planning is arguably perhaps the centre of this sectoring, since it is rooted in an organisational logic with attached legislation, techniques, and sectors that perhaps unintentionally encourage segmentation (Derkzen, Bock & Wiskerke, 2009).

The intrinsic bias of each sector is arguably another roadblock for integration. Those who are lodged within, and who profit from sectoring, are not keen on modernising existing systems, schemas, and special regimes that rationalise the current shape and are fundamental to the disintegrated agenda orientation (Degeling, 1995; Lambert, 2006). In addition, these agents elect to justify and fiercely defend their *façon de faire*, including resource allocation from various threats, such as the push for integration. Thus, their compliance with the deployment of integration is often only surface-deep, as some actors adopt the mentality of if *it isn't broken, don't fix it!* As such, they do not perceive the value in challenging the *modus operandi* and improve the way planning systems interact. Degeling points to an “institutionalized mobilization of bias” (1995, p. 294) as the source of this prevailing approach to sectoring, which is often disregarded in discussion of intersectoralism or in integration more generally.

Reticulism is proposed as an approach to integration that looks beyond sectoral agenda-making and related segmentation. Those who subscribe to the ideas of reticulism are aware of the incumbent power dynamics and are able to utilise these dynamics as leverage in the negotiation process of policy development. Reticulists do not seek to override institutional bias, but attempt to bargain and negotiate in order to come to a new policy that equally supports the interest of both sectors (Derkzen, Bock & Wiskerke, 2009). A potential shortcoming of integration that is addressed in reticulism is the mobilisation of principal actors, and linking the core of sectoral agendas, rather than merely applying this ideal of integration solely on the fringes.

III.III SUMMARY OF THE CONCEPTUAL FRAMEWORK

In spite of the challenges elaborated, there are a bounty of solutions to improve integration. Although it is useful to understand the core of what maintains CP and MSP as unique domains, the celebrated effects of integration are driving the convergence of these policy domains, especially under the influence of sustainable development. By superimposing the discussed models of holistic policy development and coordination, integration can be understood and utilised as a tool for deepening the marriage between CP and MSP. Therefore, it is of interest to examine how integration occurs across planning disciplines and how internal processes affect the success of integration.

The obvious tensions between the various formats of integration and the motivations that are encompassed in each sector's interest in integration pose challenges for implementation (Lambert, 2006). When considering the numerous dimensions of integration and its various applications, the more inclusive and general categorisation of internal and external integration can be adopted as labels. Stead and Meijers' (2009) categorisation of the components of integration shall be a prominent feature of the analysis, with the essential components of these labels being the umbrella terms of cooperation, compatibility, and

coordination (see Figure 4). This proposed conceptual framework demonstrates how the terms interact and shall frame the dissection of spatial planning in the case of the Shetland Islands.

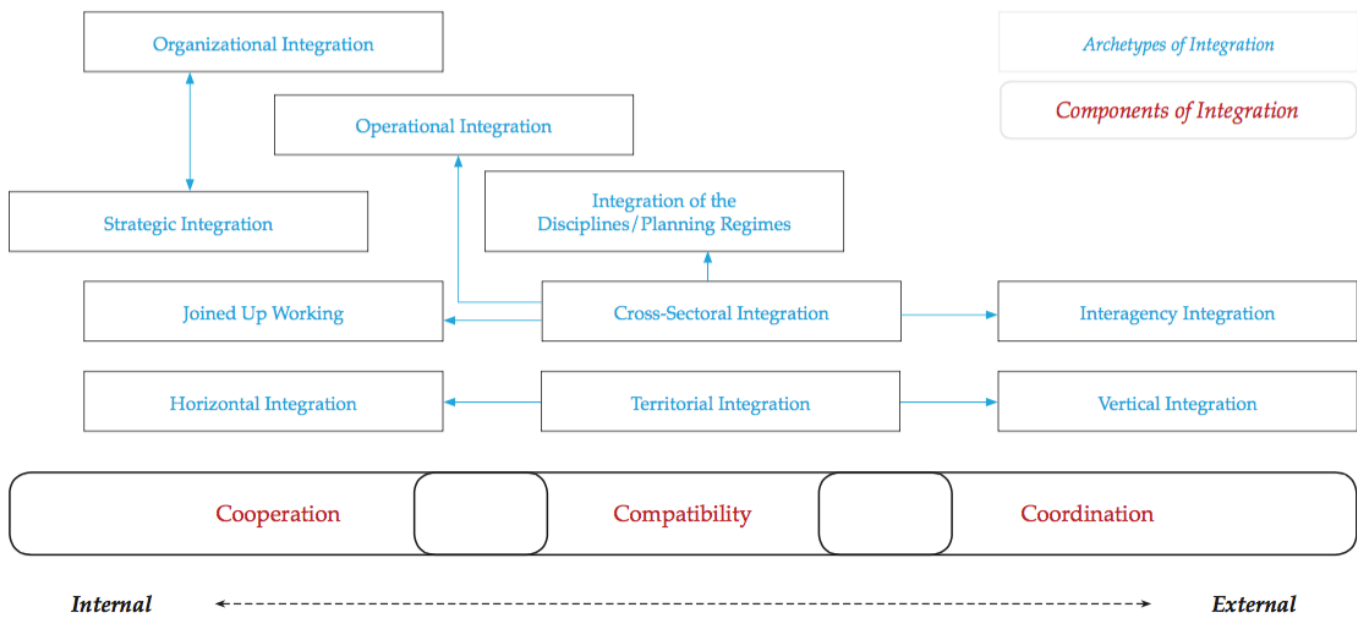


Figure 4: Conceptual Framework (Elaborated by the Author)

CHAPTER IV: RESEARCH DESIGN & METHODOLOGY

IV.I RESEARCH DESIGN STRATEGY

The underlying methodology that this research project adopted was the qualitative case study approach, as this is appropriate for addressing the questions of *why* and *how* (Yin, 2003). Baxter and Jack (2008) describe that the strength in this tactic is it enables the extraction of data from a multitude of sources, while facilitating a comprehensive analysis of the social realities that are at play within the context. By exploring the research theme through a diverse set of perspectives, this facilitates the discovery and comprehension of the multiple characteristics of a reality (Morgan & Smircich, 1980). This research observed the social constructivist ontology, since it aims to examine the construction of concepts within the specific context of the Shetland Islands. Focusing on a single discreet entity assumes that a deeper understanding can be obtained via a comprehensive and thorough investigation (Gorman, Clayton & Shep 2005). This research adopted a philosophical position of interpretivism. This is an appropriate epistemological perspective to adopt since this research attempts to understand the social reality through perceived knowledge (Carson, Gilmore, Perry & Gronhaug, 2001). As such, the model of a single case study was an approach for examining concerns relevant to the island context and was suitable for providing a nuanced appraisal of CP- and- MSP-related phenomena in the Shetland Islands.

By utilising the case study approach, the broader context of integration and its implications can be analysed more closely and tested rigorously (Saunders, Lewis & Thornhill, 2011). This investigation analysed the nuanced, complex, and ambiguous outcomes of policy-making and alternative processes intrinsically related to CP and MSP. Since this study proposes to employ a qualitative research approach, the connection between theory and analysis is categorised as inductive (Babie, 2010). Through a circular feedback loop, this inductive angle is founded on the premise that the theory is influenced through the findings and observations (Bryman, 2008). This research also adopted the deductive approach, since it utilised a top-down logic by exploring broad theories and testing how they apply to specific cases (Saunders Lewis & Thornhill, 2011). The deductive approach is also relevant, since the research seeks to probe the validity of the predominant policy-making theories, and associated paradigm shifts in planning that encourages integration through a qualitative case study approach (Jays, 2010; Ellis & Kidd, 2013; Stead & Meijer, 2009).

Rationale for Case Study Selection

As a MS, the UK undertook the responsibility of implementing MSP within its territorial waters, and is now internationally acclaimed for their MSP progress through the realization of

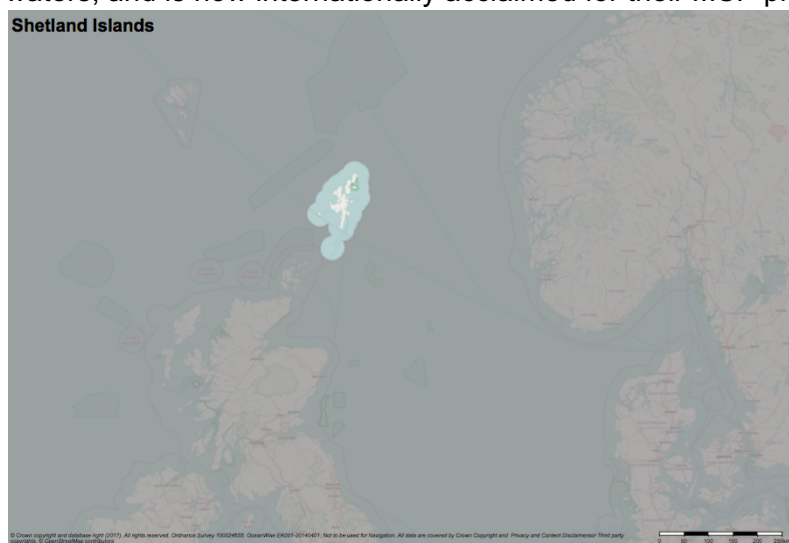


Figure 5: Map of the Shetland Island (The Scottish Government, 2017b)

formal measures, an assortment of pilot projects and initiatives. In kind, Scotland has been active in instituting comprehensive MSP, especially in its offshore territory, and is Europe's fourth biggest marine area (Kerr, Side & Johnson, 2014). One such region is the Shetland Islands, which is an archipelago composed of approximately 100 islands (See Figure 5). Accordingly, the Shetland Islands are an important case study subject since the mediation of land and sea is a vital

consideration. The Shetland Islands are well-versed in this policy area, since the Shetland Island Marine Spatial Plan (SIMSP) originated in 2006 (Kelly, Gray, Shucksmith & Tweddle, 2014). The plan was amended and the fourth edition was adopted as a 'Supplementary Guidance' to the Shetland Local Development Plan (Shetland Island Council, 2014). According to numerous grey literature sources, this progress and budding momentum could propel the SMSP to be the first designated statutory MSP in Scotland (NAFC Marine Centre, 2014).

In addition to the Shetlands' experience with MSP, its economy is dependent on both the coastal and marine resources (Brookfield, Gray & Hatchard, 2005). This dependence dates back to the Bronze Age, but nowadays, fisheries and fishing are the most dominant segment of the economy (Crean, 1999). The offshore oil industry emerged in the 1970s and has progressively been asserting its position within the Shetlands' economy (McNicoll, 1980; Marsden, 2010). These activities, in addition to shipping, renewable energy developments, and tourism, are placing pressures on the coastal and marine environments and this is compounded by the risk of environmental disasters related to climate change. The familiarity with marine planning and history of participation in the discipline provided the basis for examining the integration agenda. More specifically, it was possible to analyse the form of integration and its most prominent components and the facilitators, advantages, disadvantages, and/or inhibitors acting in the process. The Shetland Islands' inclusion of stakeholder consultation as a key factor in the planning process allowed for the investigation of the actors' attitudes towards and their understanding of integration.

IV.II RESEARCH METHODS & SAMPLING CONSIDERATIONS

The research questions have been reformulated in Table 2, and the justifications for methods used shall be described in the following sections.

Reformulated Research Question	Nature of the Data	Method
(1) What explanatory variables help shape integration? (a) What conception(s) of integration is being promoted (b) How is integration being framed?	Qualitative	Documentary Analysis & Semi-Structured Interviews
(2) What are the causal mechanisms impacting integration? (a) What are the drivers and/or inhibitors of integration? (b) What are the perceived advantages and disadvantages for improving integration between CP and MSP in the Shetland Islands?		

Table 2 Reformulation of Research Questions (Elaborated by the Author)

Semi-Structured Interviews

Interviews are used as a method for collecting data originating from a primary source, and, in this case study, might have elucidated the 'reality' and less formal motives among participants (Kumar, 2012). In the model of the semi-structured interview, the interviewee was expected to answer a set of specific questions, and these questions were printed in an interview guide that was referred to throughout the session. This approach is different from the structured interview since it allowed for flexibility and diversity between the participants' responses, depending on what was most important to them. The order in which the questions were asked was also at the discretion of the interviewer. Additionally, the interviewer was permitted to include follow-up questions, which may not have been included in the set of written questions in the guide. Although this method was advantageous because it is flexible, the interviewer had to be both mindful and watchful about how the subject matter and questions were conveyed and received by the participant.

An exploratory interview was conducted prior to the commencement of the data collection phase with the MSP Manager in the Shetlands, who is overseeing the development

of the SIMSP. This discussion was informative and enabled the researcher to narrow the scope of the research questions. It also directed the researcher to key stakeholders and to significant documents. Following this advice and with reference to the SIMSP (4th edition) complemented by a review of online resources, and material from the NAFC Marine Centre, it was possible to generate a comprehensive actor network (see Appendix B). All relevant institutions and stakeholders were contacted via e-mail, with willing participants being interviewed at their earliest convenience (See Appendix C). Targeting informants from within the actor network was necessary, because Babbie (2010) describes a suitable informant as “someone who is well-versed in the social phenomenon that [the researcher wishes] to study, and who is willing to tell you what he or she knows about it” (p. 195).

The interview guide was written in accordance with the literature and the research questions (See Appendix D). Since direct and specific questions should be used when enquiring about procedural aspects of integration, the fourteen questions were designed in order to extract an ideal amount of data from the respondents. For determining the more intangible dimensions, such as attitude and mindsets of practitioners about the potential of integration, probing and indirect questions were used in order to prompt natural and uninhibited responses (May, 2011). This was achieved by posing open-ended questions and by using prompts, which are listed as sub-questions, to capture their position with regards to the research question. In order to ensure accuracy and in the interest of best practice, the interviews were audio-recorded and later transcribed (May, 2011; Bryman, 2008). As such, it was compulsory for the researcher to obtain informed consent.

Qualitative Documentary Analysis

Documentary analysis was attached to the first research questions and was an approach for collecting qualitative and quantitative data. In isolation, the use of documentary analysis is inappropriate for responding to *why* questions. Documents may be useful in answering *what* questions as they can explicitly inform the researcher of what was or will be accomplished. As such, they can provide some rationalisations, but since this research seeks to answer *why* questions, it is necessary to also utilise another research method (Bryman, 2008). Documentary analysis complemented the semi-structured interviews, because it accounted for the positions of institutions, rather than individuals, and contributed to an in-depth understanding of the overarching framework directing CP and MSP in the Shetland

	Documents Pertaining To Terrestrial or Coastal Planning	Documents Pertaining To Marine Planning	Other Relevant Documents
Shetland Island Level	The Shetland Island Local Development Plan, 2014	The 4 th Edition of The Shetland Island Marine Spatial Plan (SIMSP), 2015	
Scottish Level	Scotland's Third National Planning Framework	Marine Scotland Act, 2010	Places, People & Planning: A Consultation on the Future of the Scottish Planning System
	Scottish Planning Policy Replaced NPPG13 –Coastal Planning, 1997	Marine Scotland Act, 2010	Planning Circular: The Relationship Between The Statutory Land Use Planning Systems & Marine Planning & Licensing
			Additional Information to Accompany Ministerial Directions Document: Further Information on Marine Planning Functions Delegated to Marine Planning Partnerships
UK Level		UK Marine Policy Statement	

Table 3: Documents Subjected to Documentary Analysis (Elaborated by the Author)

Islands and clarified the nature of their relationship. This enabled the examination of the public rationale and indicated whether integration is a priority and in what capacity. Prior to engaging with documentary analysis, it was crucial to establish that the documents were “credible, authentic, representative, clear and comprehensible” (Bryman, 2008, p. 516) so that implicit and hidden meanings could be discovered. It was essential to recognise the issue of bias when utilising this method. The bias that the researcher projects in their selection of the relevant documents and on to the subsequent evaluation of the documents was a key concern.

Documentary analysis was conducted on the documents relevant to MSP and CP. This type of qualitative analysis enabled data to be generated in relation to whether the status quo supported integration being employed. Moreover, it helped determine the purported position of the various agencies towards integration, as these positions were expressed through the documents they produced. The following documents were examined and selected because they contained pertinent information relating to CP, MSP, and the integration of the two at either the Shetlands, Scotland, or the UK level (See Table 3).

IV.III DATA ANALYSIS CONSIDERATIONS

The objective of data analysis was to render the methodology operable. For qualitative methods, analysis of the text is based on highlighting the rhetoric features (Antaki, 2008). In the context of social science research, texts are the result of discursive processes, and therefore, include both written documents and transcribed texts from the semi-structured interviews, since they are a derivative of spoken language (Fairclough, 2013; Wodak & Meyer, 2009). So as to examine the rhetoric elements encapsulated in the texts, the manner in which the arguments were framed and constructed was of interest. Fürsich recommends this analytic approach because it permits the researcher to concentrate on “latent meaning [...] implicit patterns, assumptions and omissions of a text” (2009, p. 241). This analysis technique was chosen because cultural, behavioural, social, and political factors are influential in the policy-making processes and are relevant to the comprehensive examination of integration. This qualitative approach was deemed useful for tackling the intrinsic issues, which is a gap in the existing literature on practical implementation of integration in spatial planning (Fürsich, 2009; Cowell & Martin, 2003).

To ensure consistency, the pertinent sections of the texts were recorded in a rubric (see Appendix E). The rubric consisted first of a context section where basic information was entered, such as the author, source, etc. Secondly, there was a section for including both the implicit and explicit mentions of the varying components of integration. Also, there was space for the researcher to record the presence or an omission of the integration factors (Bryman, 2008). The efficacy of this approach was contingent on the quality of content categories. Therefore, the researcher ensured that the categories were independent, concise, exhaustive, mutually exclusive, and were attached to operational definitions, while avoiding schemes that required a value judgment or room for interpretation, to increase the reliability of the data expressed. A deductive qualitative content analysis was required. This type of analysis aims to test theory and the categories were formulated and informed by the literature, since this research aims to connect the purported best practice with what is occurring in actuality. Deductivist theory enables the researcher to formulate a hypothesis based on the theory. The hypothesis contains embedded concepts that require coding into researchable units called content categories (Bryman, 2008). Stead and Meijers (2009) provided the category boundaries for the components of integration being examined (See Appendix F). By carefully reviewing the documents, instances of the occurrences of each category were recorded in the form and discourse strands were identified.

Once the discourse strands were coded, other elements were examined, such as the structure of the text, the discourse at play, and the cultural indicators (Bryman, 2008). Lastly, the data was interpreted, which, according to some authors, is the most critical step of qualitative research. By utilising a mix of open and selective coding, the categories were rendered more malleable and facilitated an iterative process of analysing the relationship between the categories and concepts. A shortcoming of the discourse analysis was that it

presented the pitfall of describing rather than analysing. Therefore, once the rubric was completed, it was important for the researcher to subject the strands identified to rigorous, careful, and thoughtful analysis (Bryman, 2008). Other shortcomings were inherent of qualitative research, which shall be explored in the following section.

IV.IV LIMITATIONS OF THE RESEARCH

There were numerous limitations related to the nature of this case study. The geographical remoteness of the Shetland Islands and the expense to travel to the territory limited the researcher from physically visiting the case site in question. Due to the governance structure and that some of the relevant stakeholders were located in mainland Scotland, as well as the scattered nature of the actor network, it was most efficient to conduct the interviews by telephone or via Skype conference call. Communication proved to be a significant limitation. Since the actors were effectively strangers, e-mail communication was selected as a means of first contact. Considering the uncertainty of this form of communication, most actors that were contacted were slow to respond, too busy to participate, or apprehensive about the suitability of their expertise for the project. In some cases, the response time of the respondents rendered it impossible to schedule an interview. Persistence and reassurance was required in order to successfully secure six interviews. Initially, the researcher sought to secure a minimum of ten interviews. This did not infringe on the quality of findings, since the constituents described similar and, at times, contrasting arguments, which enabled some comparison of motivations, attitudes, impediments, and interpretations at play in the spatial planning policy-making arena with regards to integration.

The qualitative nature of this research coupled with the specific case study context resulted in limited scope for generalising the findings. Also, the findings were usually critiqued for being impressionistic and biased, since they were contingent on the investigator's determinations of what was noteworthy and valuable. As such, the discourse analysis is considered potentially problematic, since it is branded by its latent researcher bias, which can infringe upon its applicability and the methodological considerations (Bryman, 2008). In order to overcome these *positionality* issues, it was imperative for the researcher to recognise and reveal innate biases byway of the *reflexivity* method (Ballinger & Payne, 2000). By delving deeply into understanding the context and inherent processes, it was possible to override the shortcomings of qualitative research. Reflexive considerations were infused into the analysis and were also handled in the critical reflections subsection.

IV.V ETHICAL CONSIDERATIONS

In order to uphold the integrity of the study and to ensure the well-being of the contributors, it was imperative to be cognisant of certain ethical considerations (Kumar, 2012). Researchers are mandated to utilize information in an appropriate way that will not serve any personal interest, engender any negative effects on the informants and other participants, or misinform readers (Kumar, 2012). In consideration of these concerns, the researcher ensured that the most applicable researching methods were used, and that the findings were reported truthfully. With regards to the participants, the researcher obtained informed consent prior to the commencement of each interview, as well as their permission to record and utilise the information under their authorship. In some instances, where the participant requested anonymity, mentioned something "off the record", or refused for the interview to be recorded, alternative measures were used to comply with their wishes.

CHAPTER V: EMPIRICAL ANALYSIS

V.I CONCEPTION OF INTEGRATION BEING PROMOTED

The participants of the interviews were unanimous in their support of integration, but just as the literature offered a plethora of versions of integration, this pattern was echoed in the data. Both internal and external integration were referenced as imperative in all five interviews. Similarly, the official documents were seemingly engaged with the topic of integration. Examining these documents could hint at the opinions of the organisations and agencies that drafted them. Save for one, all of the official documents explicitly mentioned any variation of the root word: integrate. The document that failed to explicitly mention integration was a non-statutory guidance published by the Scottish Government to advise on the functions that will be eventually delegated to the Marine Planning Partnerships. This omission is significant, since this document is intended to guide the new model of marine planning, which includes integration, as well as devolution of power to the regional level. Beyond the semantics, the Shetland Isles, as well as Clyde Region, are considered pilot projects, since they are the first of these marine regions being established (Interviewee 2, 2017). Therefore, the conceptions of integration evidenced as being promoted could reverberate through to other regions, and sway their approach to MSP and TSP in the future. By adopting Stead and Meijers' (2009) deconstruction of the components of integration, the data can be analysed with regards to which component(s) of integration is/are being valued.

In the Shetland Islands

According to most respondents, coastal and marine planning are integrated activities in the Shetland Islands (Interviewee 5, 2017; Interviewee 3, 2017; Interviewee 2, 2017; Interviewee 1, 2017). Consequently, it can be assumed that Shetland Island territory is a proponent of the integration of TSP and MSP, since the term was employed numerous times in both their marine plan and their local development plan. According to the SIMSP, "a key benefit [of the plan] is that it facilitates delivery of the integration of policies and objectives across different sectors in the production of one unified plan" (NAFC Marine Centre, 2014, p. 14). This explicit reference to internal integration and the direct indication that the MSP is a mechanism for facilitating integration indicates that the Shetland Islands are invested in promoting integration and remediating the divide between land and sea. Beyond promoting integration of marine spaces and coastal areas through this non-statutory guidance, the Shetland Islands also believe that integration requires "consistence between marine and terrestrial policy documents and guidance" (NAFC Marine Centre, 2014, p. 35). Furthermore, an ecosystems-based approach is the purported "strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way" (NAFC Marine Centre, 2014, p. 17). Articulating tangible mechanisms and methods for achieving integration indicates an acknowledgement that rendering integration operable is a priority. This signifies a departure from integration simply being an essential component of grandiose and aspirational policy rhetoric and offers the push for more legitimate integration. Spatial planning, in this case, serves to moderate the source of "political short-termism in policy-making" (Stead & Meijers, 2009, p. 339).

The Shetland Islands appear to be equally concerned with both conceptions of integration: internal and external. Of the documents analysed, the ones pertaining to the Shetland Islands explicitly and implicitly referred to both the external and internal formulations of the three components of integration that were identified by Stead and Meijers (2009). The two documents that were examined for the Shetland level were the SIMSP and the local development plan. Although both documents endorsed both internal and external integration, the local development plan appeared to be devoid of explicit reference to cooperation, and did not offer as many inferences to integration as the SIMSP. This is possibly due to the regulatory nature of land planning. Cooperation is operationalised through informal and less tangible mediums, such as meetings and telephone communications, which is perhaps why it is not applicable to the formal approach to TSP. The SIMSP equally refers to all three components

of integration, which indicates complete advocacy and a strong support system to encourage that it occurs in all forms and at all levels. This observation is logical since the SIMSP is a trailblazing document and the Shetland Islands are considered examples in championing integration in all directions and forms.

At the Devolved Administrative & National Level

The data extracted from the planning documents pertaining to the supra-local level demonstrated that there were variations between the treatments of integration in the two types of documents examined. The national plans demonstrate a subtle stance towards integration. The support for integration was noticeable in the constant reference to other spatial planning domains and actions, which indicated the need for crossover between the policy spheres. Also, the data expressed that the factors and associated categorisations of integration were permeable. This probably explains the crossover, but should be expected when dealing with the interdisciplinary topic of spatial planning. It is also a consequence of the inter-related nature of integration. With these grand lines established, it is valuable to examine the type of integration being supported.

Internal integration was mostly broached within the context of collaborative processes, with the underpinning logic being that integrated-type of working is beneficial to balance environmental agendas and also contributes to sustainable development (Cameron, Odendaal & Todes, 2004). For example:

“The RSPB is supportive of a plan-led system, and [...] by default, I guess, in an ideal world that would be an integrated system, which at the same time provides certainty to the development, but it also enables proper [...] enforcement of marine, well, natural environment protection and enhancement. So the great thing about integration is that it creates potential benefits and secur[es] that sustainable development” (Interviewee 4, 2017).

Another participant provided an illustration of instances where collaborative working would be useful to advance sustainable development objectives:

“There is a clear link between the two environments, and in order to make sure that developments are sustainable, [...], you need to accept that that link exists and move towards trying to integrate the two. [...] So for example, a [...] fish-processing factory will normally have a coastal location so that the vessels can land their fish quickly and efficiently. But any discharges from that factory will end up back in the sea. Similarly, if you have a marine renewable development, there’s a need to get the power from that development on-shore [...] for it to be transferred into the grid [and] faster into the country” (Interviewee 3, 2017).

This pattern was also evident in the higher-order planning documents, and was deployed in practice through mechanisms such as task forces, partnerships, and stewardship initiatives (The Scottish Government, 2017a; The Scottish Government, 2014a). The ecosystems approach was also prominently featured in the UK Marine Policy Statement, Marine Scotland Act, and Scotland’s Third National Planning Framework, as a means of managing integration across ecosystems, which implies the unified consideration of land, coastal, and marine planning, while ensuring that resource-use and allocations were non-detrimental to the natural environment.

In contrast, the guidance documents were more overt in their support for utilising spatial planning as a tool for addressing the interfaces of the land-sea divide. These advisory documents discussed the new emerging role of MSP and how planners should deal with this regime together with terrestrial planning. Notably, the discussion of the CP framework was intently promoted by the advisory documents as a facet of internal bridging, but was lacking from the higher-order planning documents. This anomaly was to be expected because coastal planning in the UK context was grouped with terrestrial planning and is an under-resourced endeavour. As a result, CP “suffers from having a lack of policy ‘umph’ behind it and clout”

(Interviewee 2, 2017). This undercurrent of support demonstrates recognition from a national perspective of the value of treating coastal planning as a separate exercise. However, the lack of institutional arrangements and resources revealed that perhaps the grouping of coastal management with terrestrial planning was not in an attempt to integrate the two planning regimes for the greater good of the ecosystems, but rather was an inevitable consequence of streamlining for the purposes of resource efficiency.

Overall, in both the statutory and non-binding advisory documents, compatibility was the key aspect of internal integration and was often expressed through general statements such as:

“where additional mechanisms and approaches are relevant to marine and terrestrial planning, it will be important for them to remain consistent with the policies and proposals in the respective terrestrial and marine plans” (The Scottish Government, 2015).

Due to MSP’s characterisation as a recent spatial planning discipline (Ehler & Douvere, 2009), ensuring its compatibility with other forms of planning is necessary in order to foster a healthy environment and to increase the chances of capturing synergies (Stead & Meijers, 2009). The benefits of fostering a healthy natural environment are more obvious than the advantages that ensuring compatibility produces when synergies are captured. This collaborative advantage permitted constituents who had a differentiated valuation of the aspects of the problem to constructively analyse these differences and seek solutions that supersede their own vested interests and, perhaps, limited view of the realm of possibility (Interviewee 1, 2017; Interviewee 2, 2017). Thus, this collaborative advancement was helpful in balancing interests and expediting the decision-making process. Consequently, the topic of suitability and coherence between the two regimes was of utmost importance, especially beyond the local level. The documentary analysis demonstrated that these documents also served to inculcate spatial planning ideals – like holistic thinking, working, and inclusive consultation – to the executors of the plans and policies. This indicated a top-down transfer of knowledge and best practices, which could be further discussed in the framing of external integration.

In terms of the expressed support for external integration, the documentary analysis revealed that the mechanism for this type of integration was through policy and legislative linking. Again, there was a noted difference between the advisory and the legally binding documents reviewed. The advisory documents advocated for these policy linkages to be forged during consultative and the regional planning process. Therefore, it was understood that the coordination and cooperation were the supporting elements for this push for integration. Since these documents make mention of things like:

We want to build on the growing awareness of [the National Planning Framework] and support our proposals for stronger co-ordination of regional planning by producing a spatial strategy that is prepared following even more joint working and involvement (The Scottish Government, 2017a, p. 10).

Schedule 1 of the Act makes provisions in relation to the process by which marine plans are prepared and adopted [...]. The ability of convening groups of people [...] to facilitate involvement of interested persons in the development and consultation of proposals in a regional marine plan (The Scottish Government, 2016, p. 3).

These quotes demonstrated that beyond the local level, the primary focus was to ensure the involvement of relevant stakeholders in the on-going discussions. However, a secondary focus was noted, which was ensuring that the policies were aligned.

The opposite was true of the legislative documents, since they primarily emphasised the role of policy in ensuring integration, but also secondarily acknowledged the importance of liaising between the relevant authorities and data sharing in order to ensure better and more consistent decision-making (HM Government, 2011). The emphasis on policy as a tool was noted in the UK Marine Policy Statement that mentions: “integration of marine and terrestrial

plans will be achieved through [...] consistency between marine and terrestrial policy documents and guidance” (HM Government, 2011, p. 9). All actions occurring on a more local level should be in line with the regional marine plans, as well as national acts, such as the Town and Country Planning Act, but also cites adherence to supra-national policy actions, such as the EU Marine Strategy Framework Directive (The Scottish Government, 2014a; HM Government, 2011). It should be recognised that although external integration was a topic broached by all the documents, beyond the local level, it appeared that external integration was not a pressing priority, since the overarching policy framework appeared to inherently produce the effects of integrated processes. This claim was substantiated by one of the informants who mentioned that coordinating across the different stakeholders was of more importance since “the way the legislation is written isn’t an issue because it just follows the legislation, [but] it’s how other people feed into that process that’s the issue” (Interviewee 5, 2017). This implies that for successful integration to occur, it is necessary for this external integration to go beyond simply name-checking and avoiding repetition between policies and other documents. It is imperative for supporting framework and the actors who enact the policies to align their objectives and their way of working. This speaks to the behavioural and cultural dimension that factors into the success of integration efforts, which shall be further examined in the following sub-section.

The supremacy of the overarching policy framework indicated the essential role of the central government in ensuring the successful pursuit of integration in all its forms and directions. Even the graphics in the documents illustrate the role of the central government as unilaterally informing the local agenda. For example, this is demonstrated by the arrows only flowing in one direction (see Figure 6). This claim was corroborated by an informant who mentioned:

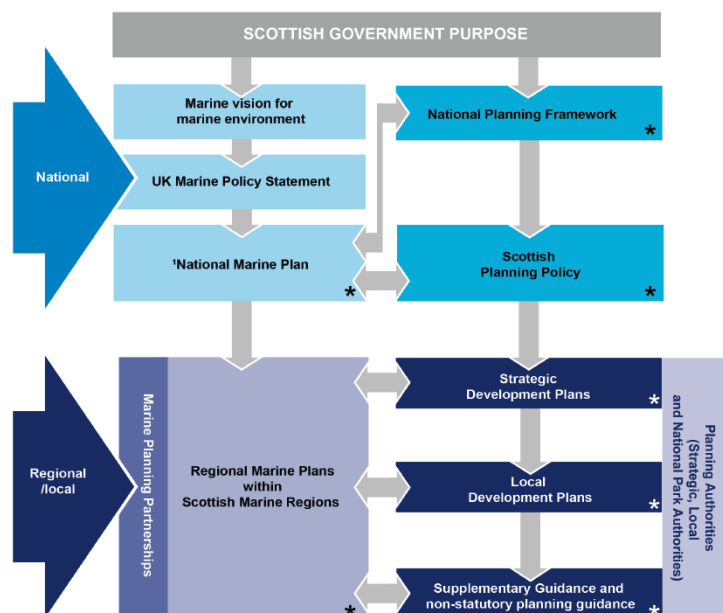


Figure 6: Purpose of the Central Government (The Scottish Government, 2015, p.11)

If you are looking for a truly integrated approach, you have to have a central driver, and therefore, government is extremely important because it's the one mechanism by which activities actually happen. So if government says 'do something', people tend to do it, and that's why the Marine Scotland approach, I think, is very effective because Marine Planning Scotland has been undertaken by a core government directorate. (Interviewee 2, 2017).

Although seemingly beneficial to the pursuit of closer integration, in the future, the extent of this centralised control should be closely monitored since “a high degree of central control [can consequent a] loss of flexibility in the policy-making system” (Stead & Meijers, 2009, p. 328). As cited in the theoretical framework, this statement is in line with what Degeling (1995) reckons is a prerequisite for joined-up working. A careful examination of the framing of integration could provide more insight into the discussion of the scope for wider integration.

V. II FRAMING OF INTEGRATION

Of the stakeholders that were indirectly probed on their attitudes towards integration, all represented an outwardly favourable reaction to the idea of closer integration between coastal and marine planning. A more nuanced probing approach adopted for the qualitative

analysis of the corresponding data, since attitudes cannot be necessarily categorised, but may exist on a spectrum.

Understanding of Integration

There were interesting similarities and significant differences that emerged when the stakeholders were probed on their understanding of the term integration. Overall, everyone involved in the research expressed their support for integration, and the informants formulated their responses in function of internal integration. At an abstract level, the most common definitional component of integration mentioned was the importance of communication and the balancing of interests. One informant expressed: “integration as far as I’m concerned starts with people talking to each other” (Interviewee 2, 2017). This indicates that discussions are useful in commencing the process of integration. Rather than apply reticulism or a more radical sense of integration, the informants generally chose to discuss uncontroversial aspects of integration.

Communication is important not just for initiating, but also for mediating the eventual outcomes. For the process of integrating planning activities to be successful, the same respondent stressed that talking is not sufficient, but that the stakeholders involved must also be prepared to listen “and understand that other sectors and other interests might have a perfectly valid viewpoint even though it may go against some of the truths that you hold dear yourself” (Interviewee 2, 2017). These statements accentuate the importance of stakeholder engagement, both at the initiation of integration, but also throughout the process of integrating activities and policy domains. This continued dialogue will possibly moderate potential conflicts of interests and identify the opportunities, risks and potential synergies.

Those who expressed their responses, with a more applied understanding of integration included the operational elements as key for achieving integration. Integration was understood by some to indicate that there was appropriate policy coverage so that “things aren’t getting fallen within the cracks” (Interviewee 5, 2017). The function of integration from an operational perspective was referenced by an informant who mentioned that the integration of time horizons when reviewing policies, plans and other actions, should be an important consideration because these integration issues can be addressed proactively through the use of tools such as EIA and the establishment of regional marine plans (Interviewee 4, 2017).

The differentiated perspective on the understanding of integration was presented when one stakeholder described the importance of physical integration, especially for vulnerable island geographies. This sentiment was expressed as follows:

“I think it’s fairly clear, particularly for an island group like Shetland, that the land and the sea cannot be separated. One influences the other and activity on land ultimately ends up influencing what happens in the marine environment. Whether that’s through discharges or just physical infrastructure itself. Similarly, what happens in the sea can influence what goes on, on land. So there is a clear link between the two environments and in order to make sure that developments are sustainable, [...] you need to accept that that link exists and move towards trying to integrate the two. Where were talking about coastal development, whether that environment is starting off on land or whether it’s actually starting off in the sea.”
(Interviewee 3, 2017)

This quote is of interest, because most of the respondents did allude to this being an important facet of integration, but, it was only expressed *explicitly* by one person, in response to the question: what is meant by the term integration? The fact that this conception of integration was implied rather than explicitly mention is problematic, since the underpinning logic of promoting integration is to ensure sustainable development and to conserve the already integrated quality of the marine and coastal natural systems. Two other respondents did make reference to broad substantive goals as a justification for integration (Interviewee 1, 2017; Interviewee 4, 2017). Some other substantive goals did emerge, but this perhaps

demonstrates that the knee-jerk reaction to the definition of integration does not entail organizing around objectives. However, when line of questioning was less blatant there appeared to be some thought about the object of the integration exercise. Perhaps this quirk demonstrates that since integration in itself is attached to a fluid definition, when asked about defining and describing the conception professionals defer to an undisputed conception of integration and favour discussing the process rather than the outcome. Encouraging provocative and maybe even controversial discussions about integration and getting professionals to consider outcomes and goals at the outset may be a vehicle for expediting closer integration.

In the understanding of integration, the expressed similarities could signify a trend of professional convergence. Since the participants were mostly from a planning and policy background, it is logical that they have a similar understanding possibly due to the uniform approach to planning, environmental policy and other associated curriculums. This attitude is promising, as having the experts being on board with the idea of integration in the first place, is a starting point and can facilitate future negotiations with regards moderating interests, opportunities and risks. Nonetheless, it is pivotal for these same professionals to recognize that integration of CP and MSP should also include physical considerations, and this point is turned to next.

Understanding of The Unique Planning Spheres & Their Priorities

MSP as a planning discipline was understood to be unique due to three important aspects. Firstly, the dynamic quality of the marine environment was the most referenced distinctive characteristic. The spatial and temporal variability of the sea and its three dimensional nature is further complicated by the wide range of activities that occur in the marine environment (Interviewee 5, 2017; Interviewee 4, 2017; Interviewee 3, 2017). The vastness and dynamic characteristic of the maritime areas produce the second factor, which is that there are data gaps. One informant expressed: “I think on terrestrial it’s something that’s quite a bit easier because you can map it spatially, you have boundaries, and you know where things are, whereas in the marine environment things move around and with [...] huge data gaps, we don’t know where everything is” (Interviewee 5, 2017). The third characteristic that makes MSP unique is that it has legislative backing, which can ensure compliance.

Each of the characteristics that renders MSP unique, had a different value judgment attached. The dynamic property of the marine environment expressed was mostly devoid of a value judgment since it is a recognized inherent characteristic of marine space. The data gap issue harboured more of a negative judgment, and represented an area of improvement necessary for the future of MSP. One stakeholder regrettably expressed that maritime spaces are

“a unique environment of which we don’t know anything about. Speaking to marine biologist it always amazes me that we spend more money trying to [...] find out if there’s life on another planet before we find out what is actually happening on our own planet” (Interviewee 3, 2017).

On a more promising note, the legal backing was expressed as an advantage in comparison to CP. In Scotland marine plans are statutory documents, and consequently all public agencies must consider the interactions between sea and land (Interviewee 2, 2017; Scottish Government, n.d.).

In the consideration of the unique characteristics of MSP, there was a pattern of juxtaposing MSP to TSP. Since coastal planning is a function of TSP, this comparison appears logical on the surface, however the coastal area is physically dissimilar to the “natural environment on land, where things are generally have a bit more of fixation on a *spot*, a particular habitat, or a particular region” (Interviewee 4, 2017). However, when coastal planning was discussed rather than TSP, the lack of institutional clout was identified as a distinctive characteristic. This lack of legal backing is problematic because since

“there’s no legislation that say thou shalt put into place integrated coastal management, it’s always seen as a nice warm, cuddly, fuzzy, non-statutory thing to do, and a huge amount of positive work has come from the various projects that were set up, in order to engage people on that non-statutory level but at the same time you [...]always wished that we could have something with a bit of force of law behind it to ensure that people did actually carry-out what they said they would do” (Interviewee 2, 2017).

Even though ICZM never appeared to achieve the same practical application as TSP, or now MSP, due to its legal status, all was not in vain, since it set the example for MSP to adopt a legal framework in order for projects and planning exercises to be effective. There is evidence of a feedback loop, since MSP now offers a legislative hook for ensuring that recognition is given to the land-sea interface, through the intertidal zone, which was a stated unique characteristic of CP (Interviewee 1, 2017; Interviewee 2, 2017). The SIMSP accounts for the intertidal zone by mentioning:

“this overlap ensures that marine and land planning will address the whole of the marine and terrestrial environments respectively and not be restricted by an artificial boundary at the coast” (NAFC Marine Centre, 2015, p. 14)

The main priorities expressed by the informants further highlights the need to forge a closer link between the two planning spheres. Ensuring long term sustainable development was the prevailing priority, which was applicable to the distinctive domains. Putting the environment at the forefront was captured through the expression: “So we’re engaging in everything that we do to achieve long term sustainable development” (Interviewee 4, 2017). Hence, sustainable development as a common thread could provide the push for closer integration. The data demonstrates that explicit sectoring or maintaining the two planning sphere separate, is no longer being upheld. Let us turn our attention to examine those who advocate this widely adopted spatial planning ideal, and those who are perhaps more reluctant. This phase of the analysis shall allow us to understand the inherent social dynamics of managing the unique marine and coastal environments.

Stakeholders in Support of Integration

Unsurprisingly the participants interviewed for this project, expressed their support for closer integration to occur between the two planning domains. With expressions such as: “I see nothing but benefit from it” (interviewee 3, 2017) “there’s 100% support for it” (Interviewee 3, 2017) and “there [...] definitely needs to be integration” (Interviewee 5, 2017). Although they expressed their support for different reasons, for example: minimizing negative impacts on species or funding and efficiencies purposes. Since these same informants are heavily involved in both MSP and CP, particularly in the capacity of drafting the marine regional plans, and guiding marine planning in Scotland. Therefore, they were in an appropriate position to comment on the stakeholders that are on board.

Overall, the informants expressed that generally those involved were promoters of integration, but how they expressed this support was interesting. In the Shetland case, due to the historical familiarity with integration, and stakeholder engagement it was not surprising that a participant expressed: “Well locally I would say everybody is on board with it” (Interviewee 3, 2017). However, in the following sentence they mentioned that nationally it is gaining acceptance more slowly. Scotland is subscribing to integration since the establishment of the national marine plan. It is trying to progress towards the establishment of the regional marine plans, which by default requires both internal and external integration. At the national level, Marine Scotland recognize the value of integration because they have an ecosystems-based focus. The SNH, is also an organisation that has a favourable attitude towards integration because they have an interest in preservation and coherent management of marine protected areas (Interviewee 2, 2017).

Through the analysis of data which indicated support for integration, a sort of countervailing opinion was noted, when one of the informants mentioned: “there are no sectors

that do not want to see integration” (Interviewee 1, 2017). This careful phrasing suggests the existence of a sort of *limbo*, wherein some of the sectors do not express their discontent but may not be actively taking steps to encourage integration. Although this does not amount to an expression of hesitation towards integration, there were a few stakeholders who may be reticent towards the idea.

Stakeholders Reticent About Integration

When the interviewees were asked to identify stakeholders that were more cautious towards embracing integration, there was a noted hesitation about naming and shaming the sectors who do not embrace the supposed *heralded* idea of integration. This highlights the tensions with regards to fully embracing integration, due to the conundrum of creating winners and losers. Many chose to answer off-the-record, whereas some carefully tailored their response to infer who might not be on-board, but also offered excuses as to why they might not be. Also they proposed solutions as to how to get *laggards* on-board. There were three trends in the data. The first one was that the informants who mentioned that everybody was on-board, obviously did not identify someone who was maybe opposed to integration. The second pattern was that they identified only one stakeholder who was hesitant towards integration. For instance, the fishing sector is perhaps more slow to embracing the idea of integration because in the past they have never had to work with other sectors. This fishing sector views integration as a threat, since they feel that terrestrial side of things is getting involved in something they know little about. Compounding the issue, there is a general mistrust of scientists from fishermen, which further fuels this reluctance. Speaking of fuel, the oil and gas as well as the renewable energy industries are surprisingly on-board with this idea of integration as it improves their public image and as long as they operate within the parameters this integrative approach can provide guarantees for future development (Interviewee 1, 2017). The last noted pattern in the data was that respondents disclosed those who were maybe not on board initially, but have since modified their attitude, or are currently becoming warmer to the idea.

V.III CAUSAL MECHANISMS IMPACTING INTEGRATION

This section shall focus on the opinions of the informants, since they belong to the group of organisational stakeholders whom constitute the advisory group, which is an integral

Facilitators / Inhibitors of Integration

- (1) Procedural, Management & Other
- (2) Political
- (3) Financial / Economic
- (4) Institutional / Organisational
- (5) Behavioural, Cultural & Personal Factors

*Table 4: Facilitators & Inhibitors of Integration
(Elaborated by the Author)*

component of the governance structure of the marine planning regime in the Shetland Isles. As previously mentioned, the data extracted was categorized according to Stead and Meijers (2009) list of facilitators and inhibitors, the extra categories of advantages and disadvantages was appended to the list in order to denote occurrences where the drivers and inhibitors were present in the Shetland Island case (see Table 4)

Facilitators of Integration

Analysing the data revealed that, the informants favoured the procedural, management and instrumental factors as well as the institutional and organisational factors as initiators integration, and thus in the case of the Shetland Islands -closer integration. With regards to the procedural, management and instrumental categorization of factors promoting integration, inclusive dialogue and collaborative working appeared to be a popular theme. Everyone should be involved and steering or advisory groups could be used as a mechanism for facilitating this dialogue (Interviewee 5, 2017; Interviewee 4, 2017). An innovative tool for promoting stakeholder engagement, is SIMCelt, which is a:

“low tech board game of a fictional sea area and it’s divided up into little squares that represent sea nautical miles [...] each local authority area has its own interest in terms of developing its blue growth economy [...] and they have to work together in order to ensure that they are able to build up their own blue growth portfolio at the same time as protecting the features for which the area has been declared marine protected areas for which the area contains in it. If you give different people different roles to play, [...] then you suddenly realize that they bring their own experiences to the table, but if you make them play a particular role and it’s different from the one that they normally do then they’re understanding of another person’s viewpoint is greatly enhanced by the end of the game.” (Interviewee 2, 2017)

This tool was trialled last year in the Clyde Region, and according to the informant, the outcome was that the participants have a deeper understanding of the difficulties, interests and conflicts of other stakeholders. In this case, by increasing a sense of understanding from an oppositional or differentiated position, it is possible to forge linkages between sectors, and thus result in closer internal integration. This innovative tool is exemplary since Pomeroy & Douvere (2008) endorses the application of innovative tools that are broad in scope, in order to transcend the typical approach to stakeholder participation. Instead of simply collecting feedback and comments in relation to a specific plan, it is possible to empower the planning process through more participative activities. Although voluntary, the development and application of this tool is evidence that integration requires tolerance among stakeholders and a relational understanding.

Within the institutional and organisational factors, education and knowledge were identified as requisite components, helping to bridge the two planning regimes. More so with regard to fostering the skills of planning professionals’ and other experts, to be able to engage with one another especially in instances where the physical boundary of a development project straddles both planning domains. The importance of skills, training and education is possibly a symptom of the recent shift in natural resource management, which was traditionally the responsibility of ecologists, biologists and other scientists. With the advent of the new paradigm shift in planning, there has been a widening of the formerly narrow ocean management practice to include social scientists and other specialists in the new MSP process. Moreover, the worsening of the environmental conditions coupled with the occurrence of complex and interrelated issues such as climate change and environmental degradation have prompted “a need for advice on how to cope with the [consequential] impacts” (Hughes et al., 2005, p. 381).

One of the informants suggested that marine planning should be included in the standard planning curriculum delivered by universities so that “undergraduates who go through a planning course *actually* get some marine planning within that course” (Interviewee 3, 2017). This training would increase the cross-disciplinary communication skills, resulting in better-informed planners. These planners could have a more balanced set of interests and perspective of the issues. The suggestion was made that institutions such as the Royal Town Planning Institute (RTPI) could be instrumental in prompting this change in the curriculum (Interviewee 3, 2017). The RTPI is an important planning organisation, and since institutional and organisational factors were expressed in the data as facilitators of closer integration, it is noteworthy to analyse the institutional arrangements that could promote integration.

Overall good institutional arrangements were decidedly important factors of integration of MSP and CP. More specifically, the processes and power relations that feed into the institutional arrangements appeared to bear equal importance to the organisations themselves. An interviewee mentioned:

“there are lots of different ideas and many different marine activities that have policies connected to them within the national marine plan, and this is the role of the regional marine planners to, as I would say add a little bit of local colour to the national policies. So it’s if national policies set out the overall basic framework, it is up to the region marine plans to consider how those particular

policies directly relate to the activities and issues that are relevant within their own direct area and then make sure that everything works out and is in accordance with each other” (Interviewee 2, 2017)

This citation emphasizes the top-down role of government, to dictate the general direction of marine planning, however the onus is on the local authorities in adapting the ordinances to their context. There was no mention of the dimension of uploading, whereby the local authorities can influence the overarching policy framework. However, this can be attributed to the fact that the national policy such as the UK Marine Policy Statement are past the consultation phase and it is uncertain when it will next be reviewed so there is not much that can be done to alter the status quo (MMO, Personal Communication, June 9, 2017) The idea is that although the overarching framework exists “it needs to go down to a local level, and then at that point everyone needs to be involved and hopefully buy into it” (Interviewee 3, 2017). According to this participant, in order to uphold the institutional arrangements, *buy-in* should be fostered through a formulaic equation. Firstly, the local authorities should be on board, and then they can engage locals in over-arching framework, which will hopefully consequent “buy-in”. Although there appears to be a certain degree of freedom in the implementation of MSP, the resulting actions have to align with all the other policies, including TSP framework as well as EU and international policies and law. The top-down power relation, in terms of the policies influencing integration demonstrates the role of the central government in fostering integration. Although in the context of integration and the holistic ecosystems approach, a paternalistic heavy-handed top-down policy-making system, may not be popular in the literature. Nevertheless:

“if you are looking for a truly integrated approach you have to have a central driver, and therefore government is extremely important because it’s the one mechanism by which activities happen, so if the government says do something, people tend to do it” (Interviewee 2, 2017).

This statement reflects the importance agenda setting, and directional role of the central government for fostering integration. This could possibly be explained by the central governments goals for spatial planning, which was not expressed in the data. Vigar (2009) provides some insight on the Scottish integration agenda. The focus is on “co-alignment of strategies for mutual benefit [which is] helping bring regulatory and investment nexuses together” (p. 1587). Applying this to the data, means that the regulatory role of the central government is key to promoting the compulsory character of integration thus prompting a trickle-down effect with integration being practiced at all levels.

Advantages Specific to The Shetland Island Case

Institutional and organisational factors were advantages in achieving the current level of integration of the planning activities and cited success of the SIMSP. A recurrent theme throughout the data was the unique advantage of the Shetland Islands. More specifically, The Shetlands have an institutional advantage over the Clyde region because their governing structure is composed solely of one local authority (see Figure 7). Whereas in the Clyde there are around 8 local councils plus the National Park Authority who involved in the creation of a single sea plan (Interviewee 1, 2017). Having only a single local authority, streamlines the process of consultation. In addition, the Shetlands being an island territory have a history and certain level of dependence on seaward developments. As a result, the stakeholders understand the importance of nurturing the relationship between land and sea planning.

At a regional level, the institutional framework in Scotland is more advantageous for the progress of integration, when compared to that of England because, “marine planning is embedded within core Scottish government policy” (Interviewee 2, 2017). The same informant mentioned:

“The Marine Scotland approach I think is very effective because marine planning in Scotland has been undertaken by a core government directorate.

It's not like in England where it's being done via an arm's length non-departmental public body" (Interviewee, 2, 2017)

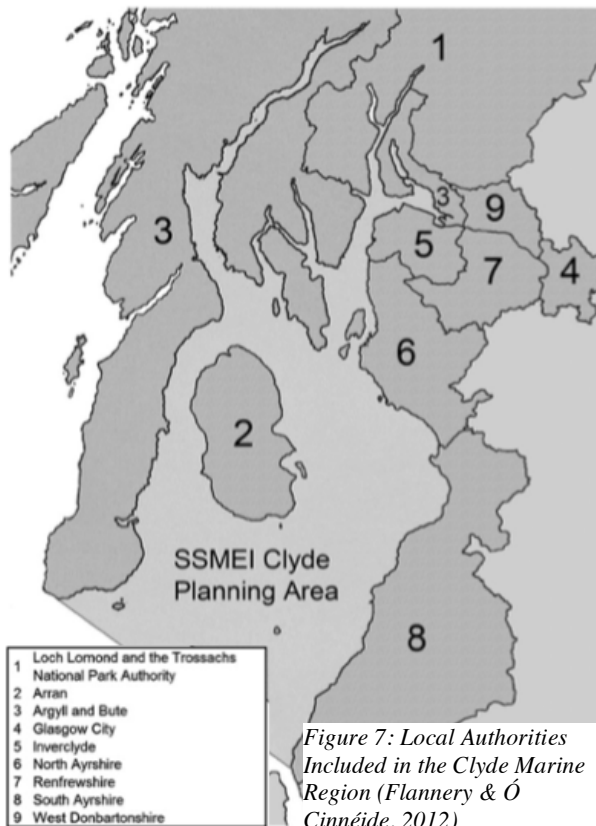


Figure 7: Local Authorities Included in the Clyde Marine Region (Flannery & Ó Cinnéide, 2012)

It is obvious to conceptualize how embedding the marine planning regime within a robust and supportive framework could result in external integration. By reviewing the context of the statement the institutional arrangements in Scotland enable effective integration in terms of a more streamline process rather than outcomes. The commentator continues by mentioning better and more resources and better management of the resources could ease the process of external integration (Interviewee 2, 2017). However, nurturing the relationship between various legislative tiers has implications beyond the immediate policy-maker area, which leads to the analysis of the procedural, management and instrumental advantages present in the Shetland Island case.

The main driver within this categorization was collaborative working, especially through the support of steering groups (Interviewee 4, 2017). The Shetland Islands has a history of stakeholder engagement, and as one respondent said: "from the Shetland experience, I would say

that all the stakeholders were involved in the entire process" (Interviewee 5, 2017; Interviewee 2, 2017). Specifically, within development of the SIMSP, "stakeholder and local community engagement [...] has been instrumental since initiation in 2006" (NAFC Marine Centre, 2015, p. 17). The Shetland Islands has been practicing this collaborative version of working for over ten years, which demonstrates their commitment to including a variety of perspectives and linking a diversity of interests to the planning process. Stead and Meijers (2009) indicate the importance of communication in assisting integration. Even though Degeling (1995) might be more skeptical about the value of dialogue, the model of "inclusive dialogue" in the case of the Shetlands is conducive for enabling appropriate communication between the relevant stakeholders.

On the instrumental and management side of the category the approach to MSP itself was expressed as an advantage. Since the Shetland Islands decided to adopt a sensitivity-constraint criteria approach to marine planning, instead of a sectoral approach (Interviewee 3, 2017). Jay's (2013) critique of the zoning is that it is an inhibitor of integration since it makes use of compartmentalization tactics and is restrictive. So it is encouraging that the Shetlands have favoured a more flexible approach. Since there are knowledge gaps with regards to coastal and maritime ecosystems, an adaptive style provides an opportunity to revise and modify the policies and plans as the information is updated. In effect how professionals consider the issues and objectives influences the process of governing and management. This style of governance in the Shetlands can be explained because when MSP initiatives commenced they "already had a lot of development in the water [and they] didn't have a blank piece of paper to work with" (Interviewee 3, 2017). As such the priority was to utilize a system that would not *rock the boat* and be compatible with the pre-existing marine activities. As a result, the instrumental and management advantages were helpful in terms of aiding in the process of integration, since it has adopted a holistic system of management.

Inhibitors of Integration

When considering the inhibitors of integration, all factors appeared to have equal weight according to the data. The inhibitor related procedural, management and instrumental categorization of factors was the described newness of the MSP discipline (Interviewee 5, 2017). Spatial planning has only recently been extended into the maritime realm, and as a result it is difficult to navigate especially if the experiential learning-by-doing technique is employed (Jays, 2012; Portman et al., 2012; Kerr, Johnson & Side, 2014). This opens the debate of whether emerging disciplines should first develop in a vacuum, and then attempt to integrate with others. Or whether new disciplines can simultaneously attempt an integrated working relationship with other sectors, while negotiating conflicts and formulating a workable approach. This debate on cross-sectoral collaboration feeds into the integration debate, and provokes the questioning of how knowledge and the availability of data can inhibit or facilitate internal or external integration.

According to the respondents, knowledge and data gaps can pose a threat to potential closer integration (Interviewee 3, 2017, Interviewee 4, 2017, Interviewee 5, 2017). These institutional and organisational factors are inhibitors to closer inter-disciplinary or internal integration because as was previously mentioned, the marine environment has yet to be fully explored. The type of knowledge that is lacking was specific to the environment and the species that inhabit the sea. Specifically, one respondent mentioned that foundational knowledge about maritime ecosystems is crucial since:

“On land if somebody wants to dig up a field, you can go see what’s on the field. In the sea, if somebody wants to destroy a bit of habitat you can’t always get [...] the ability to actually survey that area and understand what’s there, prior to the development happening. The cost of doing any survey work in the marine environment is very expensive” (Interviewee 5, 2017).

Here, the lack of knowledge is seen as limiting especially in the preliminary phases of development. This can be further explained by the fact that current available data is rather limited; meaning that foresight into natural conditions is particularly problematic. Knowledge plays a pivotal role in assessments, which was elaborated as a tool for initiating integration especially on the landward side of the divide. Surveying the potential damage of a development is difficult if there is a lack of baseline data, in addition it is unlikely to occur due to cost.

Due to the particularities of the marine and coastal environments and their dissimilarity to the static nature of terrestrial areas, it will be a monumental task to fill the data gaps. It is necessary to use the best-available scientific knowledge, but it may be more reasonable to attain a more *certain* knowledge base for marine and coastal planning (Katsanevakis et al., 2011). To ensure closer it may be effective to redirect the finite resources available for supporting research to minimize the uncertainty of the effects of decision-making on both the physical and social systems, and to examine how these effects impact internal integration.

Gaps in information are linked to the reported resourcing issues, which were identified in the data as a primary concern with regards to economic and financial factors. The third participant expressed that the greatest obstacle was:

“a lack of resource within the authorities that will have to do this sort of thing. Clearly around the UK there are a number of planners who deal with land planning issues but they need a different skillset to be able to take that and extend it out into the sea. So it’s possibly a resource issue, where the marine knowledge is lacking within a planning authority” (Interviewee, 3, 2017).

The data pinpointed that the issue was particularly grave at the local authority level (Interviewee 3, 2017). It is advantageous to have a team or an individual tasked with answering questions related to the development of regional plans, and moderating and balancing both the interests of coastal and sea interests (Interviewee 5, 2017). However, it is rare that these types of human resources are available (Interviewee 2, 2017). This is perhaps due to differing priorities and agendas. The value of having full or almost time officers

represents a mechanism for facilitating internal integration. It may be difficult for professionals to deal with matters of integration, especially when the popular way of working entails addressing issues individually in separate policy arenas (Vine, 2008). Consequently, the suggestion of having a full time integration go-to person would be beneficial for the process of integration as well as the outcomes. In that the appropriate stakeholders are being included and ensuring that nothing is getting forgotten. In order to surmount this potential roadblock, human resources and the associated financial resources should be allocated to the successional phases of the establishment of Scotland's marine regional project (Plasman, 2008; Flannery & Ó Cinnéide, 2012).

All but one of the informants did not disclose any political factors that could prohibit integration. However, the one mention of a political factor was probably one of the most significant events in recent political history: Brexit. The uncertainty of the current exit trajectory of the UK from the EU is concerning. Although marine planning predates the EU MSP Directive, the hope is that the progress made to align with the over-arching policy-framework survives the negotiation of the Brexit arrangements (Interviewee 2, 2017). Since the UK is an island, with its waters bordering Ireland, France the Netherlands, Belgium and Denmark it will still be able to cooperate with these MS, as a non-EU-third-party on trans boundary maritime issues, and for sea basin management but "in relation to a non-EU-third-party country connecting with members of the European Union will be something [...] very interesting to observe and watch in the future" (Interviewee 2, 2017). This political factor represents a possible inhibitor for external integration where considerations for operationalizing external integration between the supra-national level, and the MS level. It may inhibit integration because the responsibilities for respecting EU policy may be absolved at the national level, and the trickle-down effects could have repercussions at the local scale.

Within the data, human nature was cited as a potential roadblock to integration, and this factor could be classified under the behaviour, culture and personal categorization. Humans and their personality are just like the marine landscape: dynamic and diverse, and unpredictability in this area could lead to barriers in integration especially in consultation and engagement events. A possible explanation is that a differentiated understanding of language can lead to a differentiated comprehension of the issues surrounding integration and can feed into professional defensiveness (Stead & Meijers, 2009). Organisational culture was noted in the data as potentially damaging to integration, since "human beings and their vested interests are the biggest obstacles for closer integration" (Interviewee 2, 2017). This respondent contends that the actors who have the ability to extract themselves from their own interests and that of their organisation, and who can neutrally determine the collective interests of all the stakeholders involved, are beneficial to the integration process. Personality, character and personal experience can affect the integration process. From something benign as

"If somebody gets out of bed on the wrong side of the day it can have a hugely adverse effect on all kinds of other things that they get involved with during the course of the day. [...] Human beings and their connected interest, and probably [the in]ability of people to look at connected interests dispassionately and without putting a filter of their own interests, whether that's financial or social or environmental or cultural or anything."
(Interviewee 2, 2017)

In order to surmount the potential obstacle defined by this categorization, it is imperative for actors to display a positive attitude and beneficial organisational culture towards those with whom they are required to partner up with. An examination of the role of sectors in shaping attitudes for the benefit of integration process more so than outcome could further unpack the issues contained in redressing attitudes and organisational culture (Degeling, 1995).

Disadvantages Specific to the Shetland Island Case

In relation to the Shetland Islands, there were very few disadvantages expressed in the data. This does not preclude the analysis of inhibitors intrinsic to the Shetland case, since

omissions are equally indicative, but require an alternative technique similar to *reading between the lines* (Breakwell, Hammond, Fife-Schaw & Smith, 2006). This non-occurrence presents several possibilities. Firstly, it could be that there are very few or perhaps no disadvantages that are relevant within the discussion of integration at the local level. However, this would suggest that *a perfect way of working* in the Shetlands has been established. A more reasonable explanation is that perhaps the informants were not well equipped to comment on the MSP process specifically relating to the Shetlands. As professionals involved in planning, they were able to comment on the potential barriers in general. Another explanation could be that the informants believe that the progression of closer integration in the Shetlands is promising, and therefore chose to focus on that in their feedback. This is reflected in the data, when most of the interview candidates responded affirmatively to the question: “would you say coastal planning and marine planning in the Shetland Islands are integrated activities”? Another rationalization could be that perhaps the level of concern with the topic of closer integration is limited because only small changes are expected. Better sharing of information, and a more cohesive policy framework are examples of the softer adjustments, and since these do not pose a challenge to the status quo, stakeholders may be slightly apathetic.

CHAPTER VI: CONCLUSION

VI. I SUMMARY OF FINDINGS IN RELATION TO THE RESEARCH QUESTIONS

What Explanatory Variables Help Shape Integration?

The conceptual framework established internal and external integration as a differentiated version of integration, with the distinction lying in the direction of the processes (Table 4). According to public rationale and stakeholder opinion both conceptions of integration similarly supported at the Shetland, devolved administrative and national levels. This finding is congruous with the academic literature and reflected that those in the fields of spatial planning and environmental policy are keen to promote integration. The conceptual framework included three components which were identified as variables capable of explaining the operation of integration, namely cooperation, coordination and compatibility. Coordination and compatibility were applicable to both external and internal integration, whereas cooperation was mostly discussed in terms of the internal conception of integration. The evidence of these *three Cs* in this case study represents perhaps a theoretical contribution. It was deduced that instead of the *two Cs* proposed by Stead and his colleague (2009) compatibility appears to assert itself as a useful dimension for consideration in both expressions of integration.

The manner in which the probed stakeholders frame integration was examined through their understanding of the idea and associated concepts. Overall, there were divergences between how stakeholders framed integration, but one common point was a deference to discussing uncontroversial aspects of integration. Correspondingly, it was more difficult to tease out the framing of the concepts, due to the inadvertent ambiguity and uncertainty surrounding the debate on whether integration is being considered a process, and/or an outcome. These more ambiguous findings demonstrate that although integration is widely accepted, it is still plagued by a lack of understanding of what it entails and how it can be achieved. This case demonstrated that perhaps integration can be understood as embedded in quasi-sustainable development discourse and is partially guided by an efficiency logic (Lafferty & Hovden, 2003). This demonstrates the influence of governance and government in dictating the manner in which integration is managed and negotiated. As MSP complies with the new paradigm, builds on previous planning experience and has conceptualized as a planning utopia where the consideration of space is integrated. This is perhaps best summarized by Couclelis's observation that "we may have gone too far in limiting our sights to tinkering with the present on the basis of patterns drawn from the past" (2005). Therefore, it may be reasonable to quell the fanfare surrounding integrated spatial planning as a means for remediating the divide, and refocus the fervor for implementing ICZM and strengthening its legislative policy framework.

What Are the Casual Mechanisms Impacting Integration?

As per Stead and Meijers's (2009) categorisation of causal mechanisms, the facilitators and inhibitors were assessed (see Table 4). The informants expressed consensus on the facilitators and identified *the procedural, management and other* as well as the *institutional/organisational* categories as key factors for successful integration. These factors were also evident at the Shetland level, where integrated management approaches have been adopted and have contributed to the progress of MSP. Conversely, the findings revealed that the same categories were given equal credence when assessed as causal mechanisms inhibiting integration. In sum, these findings might be a product of the content categories used. Since the actor network was composed of organizations and institutions it is likely to view the institutional and organizational factors of integration when considering facilitators. The constituents also valued the procedural, management categorisation which is understandable, since within the spatial planning regime they are accustomed to operate in collaborative and

efficient ways. The differentiated perspective of the facilitators and inhibitors is perhaps wider reflection of the potentially problematic formulation of the spatial planning paradigm. The propensity of actors to demonstrate favouritism towards certain facilitators of integration is also perhaps a commentary on the fact that integration as a concept attached to spatial planning, contains “strategic ideas from the arena of [its] articulation” (Healey, 2004, p. 64). These political factors, along with behavioural aspects and economic factors can impact integration and should be at the forefront of the decision-makers’ consciousness.

The last finding was that the participants identified several advantages of the Shetland context that could cause successful integration. There were no disadvantages or inhibitors expressed. This does not imply that the Shetland case is devoid of inhibitors to integration, rather this finding offers that they are less evident. The findings of this case study indicate that although the islands are significantly disadvantaged in terms of environmental degradation and climate change, they have the advantage of operating within a small *policy village*, with often-simplistic local policy structures and familiarity with dealing with the land and sea divide. The *island advantage* identified in the Shetland case could have implications abroad. As the associated causal mechanism could promote integration of planning regimes in island territories globally that have to contend with the land-sea interface (Halstead, 2016; Grydehøj, 2011).

VI. II CRITICAL REFLECTIONS & FUTURE RESEARCH

Methodological Reflections

Concerning the methodology, six interviews may not have represented a sufficient sample. However, due to the exploratory and qualitative nature of the study, it appeared to be adequate due to the breadth and depth of the interviews, and the data that was garnered. Since the semi-structured interview was not the sole method employed in this research, the information extracted was appended to the documentary analysis. If time and resources were of no object, this research would have benefitted from a larger interviewee sample. Travelling to the Shetlands would have provided the researcher with greater contextual knowledge. A better grasp on the context would have perhaps contributed to a deeper understanding of the dynamics, issues and opportunities prevalent in Shetland, compared to the rest of Scotland. Additionally, being based in-situ could have provided an opportunity for the researcher to grow the interviewee sample size.

The researcher must also recognize issue of positionality and the inherent bias that could have infringed on the data collection and analysis phases. Given that the researcher is from a spatial planning background, the understanding and support for integration may not have come from a neutral perception of the subject. Just as the participants voiced their support for integration, the researcher also subscribes to this idea of championing integration. This research attempted to be more balanced, with the investigation of the inhibitors to integration, and the line of questioning that probed the interviewee’s support for integration.

Although the examination of integration was adequately dissected in the two main versions and the three essential components, when discussing integration with the stakeholders, it was sometimes difficult to know which version or component of integration they were referencing. This was possibly a shortcoming of the interview guide and subsequent questions posed. Perhaps the research would have benefitted from more explicit follow up questions after every mention of integration in order to understand which version or component, of integration was being referenced. Conversely, the documentary analysis was a more straightforward process in understanding integration. However, this represents the tensions between official ideals towards integration and understanding of the concept evident in the policy frameworks, as compared to the attitudes verbalized by the actors responsible for operationalizing the concept. This is also a prominent issue in integration scholarship, since researchers have attempted to define essential, clear dimensions of integration but they encounter two issues: (i) they end up defining abstractions and (ii) integration is rarely researched in practice, and therefore those operating outside the ivory tower may have different conceptions of what integration entails (Degeling, 1995; Smith, Maes & Stojanovic,

2011) The confusion surrounding the concept of integration was a perhaps an inadvertent rationale for a more nuanced approach to examine the tendencies of the stakeholders, and the version or components of integration they support (Kidd, 2007). Regarding the less procedural aspects, there were three pressing issues that presented a challenge to the research -the relevance of ICZM to the UK context, the newness of MSP as a planning discipline and the ambiguity of integration itself.

Critique of the Selected Case Study & Context

Throughout the research process it was revealed that the Shetlands were not a very complex case study for examining the topics of integration and MSP, since the model of governance has enabled a seemingly seamless adoption of MPS. The findings therefore may not be entirely generalisable, as the Scottish context is a “governance village” and the small policy community has facilitated integration (Vigar, 2009). Several participants suggested that the Orkney and Clyde marine regions would be interesting to explore, especially if included in comparative analysis with the Shetland Islands, because even though the Shetland Islands have more experience with MSP, in general MSP being a newer policy domain was problematic. Since it is relatively new there is no track record, or precedence and therefore presents difficulties when attempting to gauge the future direction of the planning sphere. There is uncertainty surrounding the requirements of integration in a sector that is still developing.

In the UK, CP is being administered differently, with the different nations adopting ICZM in a differentiated fashion and to varying degrees (Shipman & Stojanovic, 2007). Nevertheless, CP was explored even though it is not being practiced, as such in the UK. This might be considered a shortcoming of the research, since CP in the UK is the domain of TSP, and thus it could be argued that the subject of the query should be examining the prospect of integrating TSP and MSP. This approach was not selected since ICZM is practiced globally, and is considered best practice in terms of the practical application of integration. This further emphasizes the point that, perhaps the key to closer integration would be achieved through the adoption of ICZM practices. These issues among others, present an interesting debate of whether integration of planning disciplines can be and/or should be standardized, even within the current spatial planning paradigm.

Future Research

Building upon the critiques, it would be interesting to follow-up on the scope for closer integration in a longitudinal study that would coincide with the future advances of MSP, and how the example of the Shetland Islands can serve as a model for the development of future MSP initiatives and their external and internal integration requirements. Alternatively, the topic of governance and how it shapes the facilitation of integration could be broached in a comparative case study research design between the Shetlands and the Clyde, which is the other pilot region for Scotland’s devolved model of marine management. Going forward, any research relating to the oceans and their management must be considered essential to the development of MSP, and potential integrated approaches due to the data gap akin to the breadth and depth of the Mariana Trench (Meiner, 2010). The inception and commitment to this research becomes increasingly critical each day, as our ability to successfully collaborate in all realms of planning is threatened by the global collective action issue of climate change, suggesting that our capacity to preemptively plan our coastal zones and oceans in the future will only be challenged.

Words: 19,959

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APPENDIX

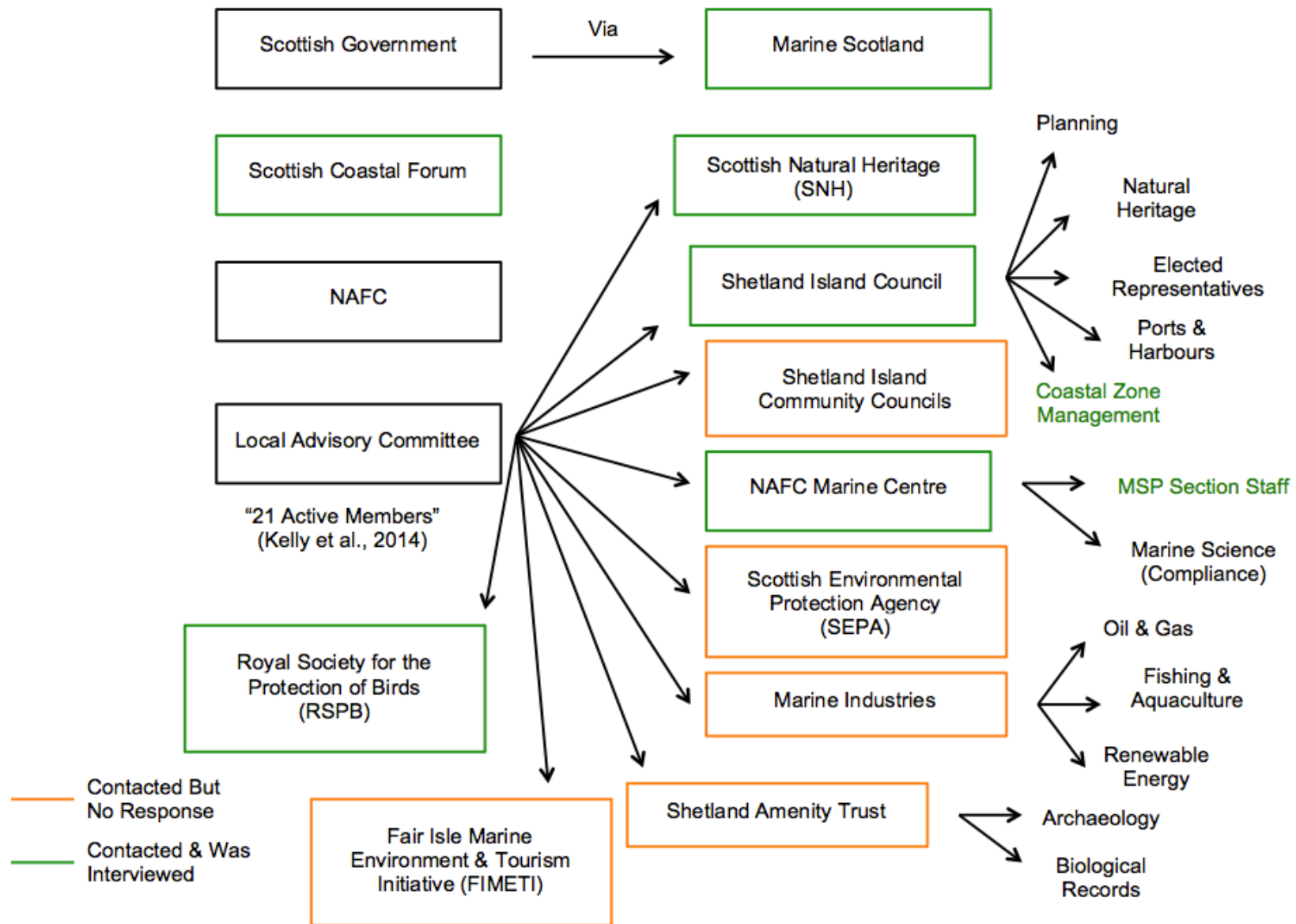
Appendix A: Historic Evolution of MSP & ICZM

Year	MSP/ ICZM Initiatives & Actions: Conventions, Conferences, Policies, Legislation, Directive, etc.	Relevance
<i>International Acclaim</i>		
1975	Great Barrier Reef Marine Park Act	Acknowledged the necessity to manage oceanic resources and spaces as an interrelated whole
1982	Preamble to the UN Convention on the Laws of the Sea (UNCLOS)	These policies delivered a framework for both the UK and EU policy related to marine management through the designation of predominant principles and standards for species and habitat conservation (Maes, 2008)
1971	RAMSAR Convention on Wetlands	
1993	Convention on Biological Diversity (CBD)	
1992	Rio de Janeiro Earth Summit Agenda 21 & Precautionary Principle	During the Summit, ICZM was first conceived as an approach for pursuing sustainable development of coastal areas (Gopnik et al., 2012)
1996	Workshop on Integrated Coastal Management in Tropical Developing Countries: Lessons Learned from Successes and Failures (Xiamen, China)	The main goals of this workshop were for experts to reach an overall consensus on the essential concepts and definitions related to ICZM and practice. Also the identification of success factors and the establishment of an agenda for directing the future for a superior state of practice (Sorensen, 1997)
1994	United Nation Convention of the Law of Sea (UNCLOS)	Advocates for holistic management approaches for maritime areas, with the requirement of geographical division and attribution of jurisdiction of coastal nations, termed Exclusive Economic Zones (EEZ) (Ducrottoy & Pullen, 1999)
2002	Rio+ Summit	Reinforced the notion that appropriate management is required to ensure sustainable development of coastal and marine areas
2002	World Summit Johannesburg Declaration	Reaffirmed international pledge to Agenda 21
<i>Supra-National Level: European Union</i>		

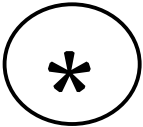
1996-1999	Demonstration Programme on ICZM	The European Commission, initiated this programme in order to bolster enthusiasm for ICZM and establish an initial idea of best practice (Ballinger, Cummins & Smith, 2010)
2002	Recommendation of the European Parliament and of the Council of 30 May 2002 Concerning the Implementation of Integrated Coastal Zone Management in Europe	Outcome of the Demonstration Programme, encouraging member states to participate in this strategic approach to coastal management
2014	Directive for Establishing a Framework for Marine Spatial Planning	Requires Member States to appoint an authority responsible for implanting the IMP of the EU
2007	Blue Book on Integrated Maritime Policy	Proposes MSP and ICZM as cross-sectoral tools for conjoint decision-making in the integrated governance schema for oceanic and seaward affairs
2006	Green Paper Vision on ICZM	Builds upon previous EU action, and highlights the importance and interconnection of land and sea ecosystems
2005	Thematic Strategy on the Protection and Conservation of the Marine Environment	Offered a framework for state-led spatial planning projects devised for attaining a superior environmental status of marine spaces (Douvere & Ehler, 2009)
2002	Common Fisheries Policy	Addresses resource management issues relevant to MSP, through the designation of fishing areas as close or semi-closed (Douvere & Ehler, 2009).
2000	Water Framework Directive	Encourages the protection and improvement of water quality inland, which has wider applications to bodies of water located offshore
2007	Infrastructure for Spatial Information in the European Community (INSPIRE) Directive	Endeavors to amalgamate various sources of both geographic and spatial information in support of sustainable development
1992-2005	The European Wildlife Directives (ex. Bird Directive, Habitats Directive, Natura 2000, Special Areas Conservation)	Significant driver for MSP on the continent, is a product of compliance to the CBD and the cornerstone of the EU's environmental conservation policy (Douvere & Ehler, 2009)
2007	Green Paper Towards a Future Maritime Policy for the Union: A European Vision for the Oceans & Seas	Is the foundation for marine policy throughout the EU, that fosters the development of egalitarian and comprehensive marine policies and actions that confirm the mutual reinforcement of economic expansion, the growth of social welfare and improvement health of marine life and environments (Douvere & Ehler, 2009)
2000	Adoption of Integrated Coastal Zone Management: A Strategy For Europe (COM/2000/547)	Establishes the EC as a driver in the discipline of ICZM within the Union (Shipman & Stojanovic, 2007)

2006	United Nations Environment Programme's Millennium Ecosystem Assessment for Marine and Coastal Ecosystems	Underlined the significance of coastal and ocean ecosystems that are being mistreated and are being destroyed at a faster rate than any other ecosystems. This is problematic as these ecosystems actively contribute to the successful survival of humans and their wellbeing (Kidd & Ellis, 2012)
<i>Sub-National Level</i>		
1992	The House of Commons Environment Select Committee Inquiry on Coastal Zone Planning and Protection	Focused attention on the issues revolving around coastal and marine environments
2009	Adoption of Marine and Coastal Access Act	Legal framework for guaranteeing the sustainability, security and environmental quality, and productive capacity of onshore and offshore spaces by implementing a new system
2010	Scotland's Marine Act	Framework for managing marine environments in Scotland's EEZ through permitting schemes, MSP, conservation and enforcement mechanism
2006	Scottish Sustainable Marine Environment Initiative (SSMEI)	The beginnings of the SMSP, and was founded by the Scottish Government with contributions from a steering group. The objective was to engineer and experiment various management approaches for coastal and maritime sustainable development (Kelly et al., 2014)
2008	SMSP 1 st Edition	Earlier editions operated under voluntary adoption and consultative in nature, and were developed with a multitude of stakeholder contribution from institutions and agencies such as: Marine Scotland, Shetland Island Council, NAFC Marine Centre, Scottish Natural Heritage association, The Crown Estate etc. The more recent edition is an amendment to the local development plan and is statutory (Kelly et al., 2014)
2009	SMSP 2 nd Edition	
2010	SMSP 3 rd Edition	
2013	SMSP 4 th Edition	

Appendix B: Actor Network for SIMSP



Appendix C: List of Interviewees

		<u>Interviewee & Date of Interview</u>	
		NAFC Marine Centre	Marine Spatial Planning February 8 th 2017 Exploratory Interview
		Marine Scotland	Public Official March 29 th 2017 Semi-Structured Interviews
		Scottish Coastal Forum	Manager April 26 th 2017
		Shetland Island Council	Coastal Zone Manager May 4 th 2017
		Royal Society for the Protection of Birds (RSPB)	Conservation May 4 th 2017
		Scottish Natural Heritage (SNH)	Policy & Advice Officer May 8 th 2017

Appendix D: Interview Guide

At the Beginning of the interview be sure to mention: “This interview is going to be recorded, and you are obviously not required to respond to the questions and can end the interview at any time”.

- 1) Could you explain to me your role and level of engagement with ICZM & MSP?
 - a. SMSP in The Shetland Islands in general
 - b. How these topics related to your position?
 - c. How often would you say that you are tasked with dealing with these policy areas?
- 2) What are the main priorities within these domains?
 - a. With regards to the coast and the sea?
 - b. In the United Kingdom/Scotland?
 - c. The Shetland Islands more specifically?

WHAT EXPLANATORY VARIABLES HELP SHAPE INTEGRATION?

- 3) What do you think is meant by the term “integration”?
- 4) What is the nature of ICZM and MSP that makes them unique/distinctive?
 - a. Are these differences a rationale for sectoring?
- 5) Is closer integration between ICZM and MSP possible in The Shetland Islands?
 - a. Why or why not?
- 6) Who is on board?
 - a. Who are the key players in favour of integration?
 - b. What do you believe is their motivations behind promoting integration?
- 7) Who is not on-board?
 - a. Who are the key players opposing integration?
 - b. What has caused them to be reticent towards the idea of integration?
- 8) How would you describe your support for integrating ICZM and MSP?
 - a. Do you agree that there are benefits (if so what are they)?
 - b. What are the drawbacks to integration (are there any other solutions)?

WHAT ARE THE CAUSAL MECHANISM IMPACTING INTEGRATION?

-
- 9) Would you say coastal and marine in the Shetland Islands are integrated activities?
- a. Why?
 - b. In what capacity?
 - c. Is there a divide between land and sea in the Shetland Islands?
 - d. What are the issues?
- 10) Is the current level of coordination supporting an ideal version of integration?
- a. Why is it ideal/why not?
 - b. What version of integration?
- 11) What are the greatest obstacles to potential closer integration of ICZM and MSP?
- a. Are there any other obstacles
 - b. How should they be addressed
- 12) What are the mechanisms for facilitating integration?
- a. In what capacity do these mechanisms facilitate integration?
- 13) In your opinion what are the most important factors of integration?
- a. Coordinating across various public policy agencies/sectors
 - b. Coordinating between various tiers of government
- 14) Which stakeholders/actors/agencies/organizations must be mobilized for effectual integration to occur?
- a. Are they currently engaged in the processes of either ICZM or MSP?
 - b. If so in what capacity?

Appendix E: Sample of the Rubric

Title of the Document:
Year:
Author:
Type of Document:
Status:

Length:
Intended Audience:
Source:
Reference:

REFERENCE TO INTERNAL & EXTERNAL INTEGRATION:

Integration

	Quote (Page Number)
Explicit	
Implicit	

Specifically Spatial Planning Related Policy Domains

	Quote (Page Number)
Explicit	
Implicit	

Mention of Other Policy Domains & Activities

	Quote (Page Number)
Explicit	
Implicit	

Cooperation

		Quote (Page Number)
Internal	Explicit	
	Implicit	
External	Explicit	
	Implicit	

Compatibility

	Quote (Page Number)
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Internal	Explicit	
	Implicit	
External	Explicit	
	Implicit	

Coordination

		Quote (Page Number)
Internal	Explicit	
	Implicit	
External	Explicit	
	Implicit	

REFERENCE TO DRIVERS/FACILITATORS OF INTEGRATION:

Other Actions

		Quote (Page Number)
Explicit		
Implicit		

Procedural, Management & Other

		Quote (Page Number)
Explicit		
Implicit		

Political Drivers

		Quote (Page Number)
Explicit		
Implicit		

Environmental Factors

		Quote (Page Number)
Explicit		
Implicit		

Financial / Economic Drivers

		Quote (Page Number)
Explicit		

Implicit	
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Institutional Drivers

	Quote (Page Number)
Explicit	
Implicit	

POTENTIAL INHIBITORS OF INTEGRATION

Other Actions

	Quote (Page Number)
Explicit	
Implicit	

Procedural, Management & Other

	Quote (Page Number)
Explicit	
Implicit	

Political Drivers

	Quote (Page Number)
Explicit	
Implicit	

Environmental Factors

	Quote (Page Number)
Explicit	
Implicit	

Financial / Economic Drivers

	Quote (Page Number)
Explicit	
Implicit	

Institutional Drivers

	Quote (Page Number)
Explicit	
Implicit	

Expressed Support of Sectoring

	Quote (Page Number)
Explicit	
Implicit	

Appendix F: Operational Definitions

Word, Expression, Term, Phenomenon	Operational Definition / Description	Example	Sample Associated Words & Key Terms
Integration	It is an activity that links “policy actors, organizations, and networks across sector boundaries” (Shannon & Schmidt, 2002, p. 17) therefore if linking up of any of the aforementioned elements is included then integration is being discussed. As the theoretical framework brought up integration can occur in a variety of ways and directions	For instance if the document mentions that the policy makers of the SIMSP must connect with the Scottish Marine policy-makers and advisers.	Interdependence, relationship inclusive, holistic, interaction, integral coalition forming, strategic integration, operational integration, secotral integration, cross-sectoral integration, integration of the disciplines/domains/policies etc.
Specifically Spatial Planning Policy Domains	Reference must be made to a policy domain(s) other than the one, which is the predominant topic of the document. Policy domains may include: environmental, land or terrestrial planning, coastal, ICZM, blue growth management, marine, maritime, MSP.	If the document is about land use planning, any reference to coastal or marine planning would be considered significant.	ICZM, coastal planning, land planning, terrestrial planning, marine planning, marine spatial planning
Other Policy Domains	Reference must be made to a policy domain(s) other than the one, which is the predominant topic of the document.	If the document is about terrestrial planning any reference made to the health care sector, or education is considered relevant	Education, Healthcare, Transportation, Justice, Energy, Climate Change
Compatibility	This term denotes the degree to which the elements are able to occur in concurrently without conflict, perhaps even enabling the capture of synergies of the document point to seeks instances of compatibility between sectors (horizontal), compatibility between various agencies (vertical)	If there is direct use of the word computability or if there is inference to the level of harmony between two elements, or policy domains	Accordance, applicability, adaptation, conformity, consistency, coherence
Cooperation	This term denotes the presence of collaboration specifically in relation to producing actions. Actions including programme, initiatives etc. This term has an underlying notion of working together for the mutual benefit	If there is direct use of the word cooperation, or if it is implied especially through non-tangible inputs such as communication or collaborative working	Engaging With, partnerships, collaborat*, consult* work with
Coordination	Coordination is an integral part of the integration process, however requires additional resources, and is more formal when compared to coordination. Can occur both horizontally or vertically (Stead & Meijers, 2009)	If there is direct use of the word coordination or if more formal version of synchronization is alluded to and includes the discussion of resources associated its success	Joined-Up Working, partnership, linked up/with, in line with, in keeping, aligned with, in line with, coordinated work*, in parallel, coordinated action, inform* by
<i>Facilitators of Integration</i>			

Other Actions	Other actions include mention of policies, plans, schedules, any piece of legislation at any level: supra-national, national regional or local, since this reinforces the idea of linking current initiatives to others	For instance if a document on MSP makes reference to an EU directive	Directives, plans, policies, advisory documents, initiatives, laws, conventions, agendas, summits, programmes etc.
Procedural, Management & Other	Poor communication and the problematic tension between actors autonomy versus the responsibility to the agencies that they represent. Flexible and adaptable monitoring and implementation mechanisms are important in fostering integration, however in the same token if these elements are not present they can effectively act as an impediment to integration	Reference made to public consultation, and other more collaborative approaches to decision making, fostering the communication and interaction between geographically proximate areas, evidence of tools to ensure consistency with other policies, evidence of networking, flexible and adaptable implementation measures	Plans, Legislations, Acts, Policies, Actions, Programmes Group approaches to problem solving
Political Drivers	Since integration is reliant upon the leadership of politicians that are able to focus on the bigger picture and seek compatible partnerships (in that the partners are of equal rank) in the pursuit of cross-cutting goals, it is understood that an efficient political process may support better integration while bureaucracy might be a threat to integration (Stead & Meijers, 2009).	Reference made to convergence of philosophies, ideas etc, reference to inter-organizational equality, ability to evoke a more holistic approach and to recognize issues that are considered cross-cutting	Commitment to integration backed by political leaders All-encompassing perspective that can identify cross-cutting issues
Financial/Economic Drivers	Integration holds a lot of water in terms of adhering to economic logic.	Discussion of economies of scale, financial gains from integration,	Spending, costs, invest*, fund*, income, tax/levy, resources, city deals, economy
Institutional / Organizational Drivers	Similarly to the political drivers of integration, bureaucracy can be a symptom of poor institutional arrangements. Therefore attention must be paid to the underpinning framework of organizations and institutions. Legislation, Likewise, a broader perspective can help foster integration and weaken (Stead & Meijers, 2009; Halpert, 1982)	Procedures and techniques which foster a supervision model a reliable form of flows especially as they pertain to resource from one organization to another, an established mechanism for central supervision and coordinative capacity in order to ensure the attainment of long term goals	Robust policy framework, standards in place that enable greater monitoring
<i>Inhibitors of Integration</i>			
Procedural, Management & Other Actions	See above	Implicit mention of vested interests, lack of a cooperative structure, lack of interest in involving other stakeholders and agents	Plans, Legislations, Acts, Policies, Actions, Programmes
Political Drivers	See above	Reference made to divergent of philosophies, ideas etc., short-term	Bureaucratic inefficiencies
Financial/Economic Drivers	See above	Financial compensations, instances where it is mentioned that the benefits do not outweigh the costs, apprehension surrounding the loss of resources	Much time required to organize the logistics Sectoral budgeting rather than budgeting along policy objectives

Institutional / Organizational Drivers	See above	Disjointed communication patterns, reduced degree of favourable internal communication, fragmentation in terms of government	Evidence of inadequate policy framework Lack of trained personnel
Expressed Support Of Sectoring	As discussed in the theoretical framework, a critique of integration is that the nature of sectors is what makes them discrete and when these ideals are adopted they act as a hindrance to integration	Any instances where there is reference to upholding the status quo of sectoring,	Different, discreet, distinctive*

