A Practical Handbook for Developing and Implementing a Higher Education Foundation Module on Marine / Maritime Spatial Planning

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With Contributions from Igor Mayer, Thomas Klenke, Kerstin Schiele, Brice Trouillet and Malena Ripken

A PRACTICAL HANDBOOK
FOR DEVELOPING AND IMPLEMENTING
A HIGHER EDUCATION FOUNDATION MODULE
ON MARINE/MARITIME SPATIAL PLANNING

Erasmus+ Strategic Partnership
for Marine Spatial Planning

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This handbook has been written as one of the activities of the Erasmus+ Strategic Partnership on Marine Spatial Planning 2016-2019.

The partnership consists of: University of Oldenburg, COAST, Germany (lead partner); Leibniz Institute for Baltic Sea Research, Germany; NHTV University of Applied Science Breda, Netherlands; University of Liverpool, United Kingdom; and University of Nantes, France.

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INTRODUCTION

This handbook has been produced by the Erasmus+ Strategic Partnership on Marine Spatial Planning. It offers guidance on developing a higher education introductory module on marine / maritime spatial planning (MSP) as part of a wider accredited programme. This could be a programme focusing on spatial planning, marine science or management, geography, or any other relevant discipline. The handbook is intended to support the development of an undergraduate or masters' level module, with adjustments being made as appropriate.

The handbook may be used to support the development of modules internationally. It may be of particular benefit in the context of the rollout of MSP in the European Union, with implementation of the 'Maritime Spatial Planning Directive' and associated national MSP systems, growing cooperation in Europe's regional seas and attention now turning to the EU's outermost regions in the world's oceans.

The approach taken here is that the module should provide an introduction to both the principles of MSP, with reference to the arguments that have been made in its favour, and the ways in which it is being put into practice, with reference to the international uptake of MSP. It should therefore introduce students to key scientific literature and to examples of MSP implementation. However, the module should not simply be providing knowledge, but also enable students to think critically about MSP and to begin to develop skills to engage with MSP professionally.

A foundation module of this kind does not assume prior knowledge of MSP; it is introductory in nature, and therefore wide-ranging in its scope. This will limit the extent to which individual topic areas can be entered into in detail. However, it is likely to be supported by related programme modules and opportunities for students to develop more specialist understanding of certain aspects of MSP, including through project work and individual research.

The content offered in this handbook has been developed by the Erasmus+ Strategic Partnership in MSP based on their international experience of MSP education and research. Further material is available via the partnership's MSP Arena[1]. We hope that it will benefit both teachers and students by facilitating greater exchange of materials and ideas for the progressive delivery of MSP education.

Local adaptation

This handbook is not intended to be prescriptive in terms of precise module aims, learning outcomes, content, assessment, etc. Modules will need to be developed in line with local conditions and needs. This will in itself lead to additional benefits as module leaders work with local MSP authorities and stakeholders in developing course materials and input.

[1] www.msp-education.eu

Different degrees of emphasis will need to be placed on the elements described below, and adaptations made, depending on such things as:

- Regional and national and context: there may be a focus on the regional initiatives and national legal and planning frameworks and MSP examples that are most relevant;
- Existing knowledge of the student body: some aspects may be omitted, or covered in greater detail, depending on the disciplinary backgrounds of the student body, or supplementary sessions may be held for the benefit of students who are lacking in some knowledge areas;
- The host institution's requirements for a module of this kind.

1. TOPIC AREAS

It is suggested that a foundation module on MSP should provide an introduction to the following topic areas, covering both core knowledge and skills development.[2]

Knowledge

1. History of MSP, including its scientific origins and arguments, and its international and national-level policy development and uptake
2. Spatial planning, with reference to terrestrial planning, integrated coastal zone management (ICZM) and planning theory, especially as they relate to MSP development
3. Marine science, including introductory knowledge of marine and coastal ecosystems, with reference to the ecosystem approach
4. Marine interests, including awareness of the key maritime industries and activities and marine environmental concerns, and the stakeholder groups that represent them
5. Maritime governance, especially jurisdictional boundaries and major conventions insofar as they provide a framework for MSP
6. MSP processes, including an introduction to the methods typically being used in producing marine spatial plans
7. MSP practice, based on examples of marine spatial plans from different contexts, demonstrating the diversity of practice

Skills

1. Critical thinking, including the ability to question and discuss arguments and practices about MSP
2. Research skills, such as the ability to access and analyse relevant sources of information about MSP
3. Planning skills, including the ability to practice some aspect of MSP at an introductory level, such as data management, stakeholder engagement, creating a vision or developing options, mapping skills, using geo data services
4. Presentation and communication skills, such as the ability to present an aspect or example of MSP in some detail
5. Individual and group study skills, including the ability to perform individual academic tasks and work as a member of a group

[2] Gissi, E. & Suarez de Vivero, J. L. (2016) Exploring marine spatial planning education: challenges in structuring transdisciplinarity, *Marine Policy*, 74, 43-57

Glegg, G. (2014) Training for marine planners: Present and future needs, *Marine Policy,* 43, 13-20

Langholz, J. & Abeles, A. (2014) Rethinking postgraduate education for marine conservation, *Marine Policy*, 43, 372–375

2. AIMS & LEARNING OUTCOMES

Module Aims

An overall module aim may be set, such as this:

- To enable students to develop a theoretical, practical and critical understanding of the notion of MSP and the wider scientific and governance frameworks within which is being implemented, and to begin to develop practical MSP skills

More specific aims, or objectives, may be set, such as these.

- To explore the scientific background and theory of MSP
- To explore the historical development and policy uptake of MSP
- To understand the legal and wider planning frameworks within which MSP is being implemented
- To understand the functioning of marine ecosystems affected by MSP
- To understand the range of actors and interests involved in MSP processes
- To study the approaches being taken to MSP in different geographical contexts
- To study the methods being used in MSP practice
- To critically discuss the arguments being made in favour of MSP
- To develop core skills necessary for practicing MSP
- To appreciate and use the information and data sources available to support MSP

Learning Outcomes

Learning outcomes may focus on specific areas of teaching and learning, such as the following.

<u>Knowledge and understanding</u>

- Knowledge of the scientific background and theoretical arguments being advanced in favour of MSP
- Knowledge of the policy uptake and international implementation of MSP
- Understanding of the broader legal and planning frameworks within which MSP is being implemented in different contexts
- Knowledge of key processes in marine ecosystems
- knowledge on key drivers and dominant problems in MSP
- Understanding of the range of actors and interests involved in MSP processes, including planners, policy-makers, maritime and coastal stakeholders and communities

- Understanding of the range of approaches being adopted in MSP processes and methods being used in practice

Intellectual qualities

- Ability to access and evaluate MSP academic literature and practice documents
- Ability to critically discuss academic and practitioner perspectives on MSP
- Ability to place MSP within broader scientific and governance frameworks
- Ability to follow current developments in MSP theory and practice
- Ability to assess impacts of MSP on marine systems and maritime activities

Skills

- Sourcing and organisation of material and arguments relating to MSP theory and practice
- Oral and written presentation of information and critical argument relating to MSP theory and practice
- Individual methods skills in a selected area of MSP practice, such as application of GIS, stakeholder engagement or scenarios-building
- Working as an effective group member in the context of MSP study

3. TEACHING CONTENT

It is suggested that the module content is structured around the knowledge topic areas (section 2). This also relates to the knowledge and understanding learning outcomes (section 3). Points such as those indicated below could usefully be covered.

1. History of MSP
   An account of the rise of MSP as a management tool, to give students an appreciation of its aims and rapid uptake.
   - The early development of MSP, especially in the Great Barrier Reef Marine Park
   - The planning arguments that have subsequently been put forward in favour of MSP, especially relating to managing marine resources more effectively
   - The scientific support that has been given to these arguments, such as the need to reverse damage to the marine environment
   - The international policy support that has been given to MSP from inter-governmental bodies, including UNESCO-IOC and the European Union, regional sea organisations and international NGOs
   - The development of national-level policy support and implementation in certain countries, showing its historical spread, especially since 2000

2. Spatial planning and management
   An introduction to spatial planning as it has been practised on land, in order to help students (especially from non-planning backgrounds) to understand the principles that are now being adopted for the sea, covering issues.
   - The legal and administrative frameworks that support spatial planning systems
   - Typical spatial planning methods, including spatial allocations, policy guidance, development support
   - The diversity of spatial planning systems around the world
   - Coastal planning and management initiatives, such as Integrated Coastal Management
   - A more detailed example of a terrestrial planning system and its main provisions

3. Marine science
   An introduction to some aspects of marine science, to help students (especially from non-marine science backgrounds) to understand the natural characteristics of the planning environment.
   - Oceanography, including vertical stratification, currents, tides and waves, chemical composition
   - Marine ecology, including benthic and pelagic communities, mobile and migratory species
   - Sea basin and transboundary scales of marine processes
   - Methods of understanding and limits of scientific understanding
   - Anthropogenic impacts on marine systems, such as eutrophication, pollution, seabed destruction and the effects of climate change
   - Environmental sensitivity and effects of climate-change on the oceans

4. Marine interests

   An overview of the key interests and activities, to give students an appreciation of the range of issues that MSP seeks to take into account.

   - Traditional maritime industries, including fishing, commercial shipping and oil and gas extraction
   - New and growing activities, including aquaculture, offshore and marine renewables and leisure activities
   - Environmental interests, including marine protected areas and concern for wider ecological issues such as marine pollution and invasive species
   - Social and cultural issues, such as socio-economic dimensions of coastal communities and maritime industries and cultural perceptions of the coast and sea
   - Data sources for individual activities and interests
   - Examples of the range of issues covered in marine spatial plans

5. Maritime governance

   An introduction to the wider governance framework for MSP, to help students understand the capacity of MSP to regulate marine activities.

   - Jurisdictional boundaries as established through the United Nations Convention on the Law of the Sea and the associated national rights and responsibilities
   - International and regional organisations that govern activities such as shipping, fishing and energy production
   - The role of regional sea organisations and, in Europe, relevant EU legislation
   - Examples of national arrangements for sectoral licencing of activities such as port development and renewable energy infrastructure

6. MSP processes

   An overview of the processes that are being established to implement MSP in different national contexts, to give students an understanding of the diversity of approach being taken.

   - The legal provisions and administrative structures being set up to enable MSP to be implemented in particular contexts
   - The definition of boundaries and areas for marine spatial plans
   - The responsibilities and overall procedures for producing a marine spatial plan
   - Headline principles for MSP, such as the ecosystem approach, evidence-based planning, stakeholder engagement
   - The steps that make up a planning cycle for producing a marine spatial plan
   - Examples of more detailed methods used in MSP, such as data collection, objective-setting, making spatial allocations

7. MSP practice

   More detailed examples of MSP practice, taken from different countries, to help students see how the various dimensions covered above shape the development of marine spatial plans and lead to different outputs. The following aspects could be covered.

   - Geographical and socio-economic context
   - Legal basis and administrative responsibility

- Key planning issues
- Use of spatial data
- Stakeholder engagement and public communication
- Spatial solutions
- Cross-border and land-sea integration
- Implementation and follow-up

5. DELIVERY

It is suggested that in order to address the topic areas, particularly those relating to skills (section 2), and to meet the learning outcomes (section 3), a variety of methods of delivery should be used. This will also address the needs of students with a range of learning styles and help them all to benefit from the module.

Possible methods of delivery are as follows.

1. Lectures

A series of lectures, or other forms of presentation, are likely to be necessary to cover the topic areas adequately. These will be most beneficial if spread throughout the module delivery, though with an emphasis on 'front-loading', as they will be particularly useful for imparting factual information and introducing critical concepts that can then be taken up in other forms of delivery, such as seminars and group work. It is recommended that at least one lecture should be given by an MSP or maritime sector practitioner, to provide a more applied perspective on some aspect of the topics being covered in the lectures as a whole. Time should be given for questions and discussion at the end of each lecture as much as possible. Recommended reading should also be linked to each lecture. This method of delivery is best linked to individual essays and / or a written exam as a means of assessment (section 6).

2. Seminars

In order to develop critical thinking skills and achieve the intellectual quality learning outcomes, there should be some form of group discussion of topics raised in the lectures, possibly supported by directed reading. For example, students, particularly at Masters level, could be expected to prepare for seminars by reading a given text, such as one relating to the history of MSP. The seminar should then focus on a critical discussion of the text, and open up the opportunity to present diverging views. Students could be assessed on their degree of participation in the seminar. Alternatively, they could take it in turns, to lead the seminar, being assessed on their ability to do so.

3. Group work

Some of the topic area skills and learning objectives relating to intellectual quality and skills would be best addressed through group activities. For example, research and planning skills could be acquired through a group project exercise, where students investigate a particular MSP process and the methods used. This would also provide knowledge of MSP processes and practices in a particular context. There is also the scope within group work to focus on

particular aspects of MSP practice, such as developing methods of data collection or objectives-setting. This method of delivery could be linked to group report and oral presentation methods of assessment.

4. Fieldtrip

If possible, a fieldtrip should be organised as part of the module; this could be a short or longer trip, as practical. A fieldtrip could be organised to a local coastal area to study some of the key issues relating to MSP in the area, or to an organisation concerned with MSP, to get further practitioner insights. Group activities could be linked to a fieldtrip; for example, students could be given the task of considering the potential issues relevant to the area, or carrying out a short assessment of the coastal and marine features and activities.

5. MSP Challenge

MSP Challenge is a suite of board games and digital games suitable for use in higher education and professional training within the domain of MSP. The board game gives an introduction to an MSP process, and is very adaptable to different learning contexts and levels. The game uses a 2.8 x 1.6 m plywood board printed with the map of a fictional sea basin. Computer-supported and fully digital versions are also available, as well as versions adapted to real-life sea basins. These are being developed by NHTV Breda University. For more information, visit www.mspchallenge.info.

6. ASSESSMENT

Assessment of student learning should be closely linked to the learning outcomes and delivery methods. They may include the following.

Individual Tasks

Examination

Knowledge and critical understanding of the topic areas may be best tested through an unseen examination. Questions may be set on a selection of the key knowledge areas, though with an expectation of the ability to discuss issues and present and defend different points of view. Questions should be based around material presented in lectures and directed reading. This also tests student ability to recall material and develop and present answers to questions quickly.

Essay

Alternatively, individual knowledge and understanding may be tested through essay writing. Essay titles should be linked to material presented in lectures and directed reading, but also require more in-depth research on the part of the students and greater reflection and more developed argument than examination answers. Essay answers may also be required to give practical examples related to the topic, testing student ability to research MSP practice.

Oral and visual presentation

Knowledge and understanding about particular aspects of MSP may be tested through oral and visual presentation, which also tests professional skills of being able to communicate effectively and at an appropriate level. This could be linked to individual research about a particular MSP process, or developing an MSP-related skill through project work. Visual presentation could include images (slides, video etc) to accompany an oral presentation, or a stand-alone poster.

Seminar leadership

Students could be tasked with organising a group seminar, based upon discussion of a key text taken from MSP literature or practice. The student responsible for the seminar may be required to provide discussion material to the rest of the group in advance, and then be assessed on both the material provided and their leadership of group discussion. This method of assessment is more likely to be appropriate at Masters rather than undergraduate level.

Group Tasks

Report

Students may work in groups on a particular task and then prepare a joint report. This could be, for example, to research best practice on a particular aspect of MSP or to evaluate a given MSP process. It is suggested that students be given individual responsibilities within their group, so that they are working as a team with different roles, but that they are

assessed on their overall effort and share the same mark. Assessment should consider not only the content of the report, but also evidence of their ability to work together effectively, such as through an appended record of group meetings. As with all assessed group work, it is important that students are given the opportunity to carry out peer review, and that individual marks are adjusted if necessary in the light of this review.

Oral and visual presentation

Similarly, a group task may be to present the results of group work orally and/or visually. This would further test the ability of the group to work together in presenting their findings effectively and persuasively. This may be connected to the preparation of a group report. As in the individual variant of this task, visual presentation could include images (slides, video etc) to accompany an oral presentation, or a stand-alone poster. Again, individual tasks could be defined within this overall group task.

7. EVALUATION

Module evaluation should be carried out as an integral part of module delivery and review. This will depend partly on the review structures for the institution in question. Evaluation include the following elements.

Informal student feedback

It is important that students have the opportunity to provide feedback on the module as it progresses. This is likely to be through informal means, such as discussion during the teaching sessions, email, tutorials etc. It may be possible to adjust the programme slightly in the light of this, such as by giving more emphasis to aspects where students have a weaker background, such as in spatial planning or marine science.

Formal student feedback

There should be a formal mechanism at or near the end of the module for students to give feedback on the module as a whole, on such things as lecture content and delivery, teaching methods, relevance of the module to their programmes of study, methods of assessment and feedback on assignments. This could be via a hand-out or an online form. It should be completed anonymously. This will inform the roll-out of the module the following year. It may highlight, for example, the value of having external practitioners contributing to the module.

Reflection during module delivery

Regardless of student feedback, the module team should consider whether the module is progressing as expected, and make adjustments as necessary. For example, it may be necessary to provide more background information to help students complete assignments successfully, such as on the process of producing a marine spatial plan, so that they can explore whether this has been done adequately in a particular case.

Module review

All of the above should inform a full review of the module once it has been completed (including assessment). This will allow the module to be revised and improved for the following year. Questions such as the following might be asked.

1. What were the strengths and weaknesses of the module?
2. Did the module provide a sufficient introduction to MSP and cover the module aims adequately?
3. Was there sufficiently wide input from academic and practitioner perspectives?
4. Was the module relevant to the students' programme and future professional needs?
5. Did students have the opportunity to develop adequately certain MSP skills?
6. Were the teaching and assessment methods sufficiently wide to appeal to different student learning styles?
7. Were the assignments appropriate and sufficiently geared towards achieving the learning outcomes?
8. Was the level of student performance acceptable for this student cohort?

9. What needs to be done to address negative student feedback and any shortcomings in the module?

Institutional review

The host institution will have its own processes for further internal and external review of the module and student performance. The steps above can be fed into this, such as via a review form and overview of module content and assessment by an external examiner.

8. RESOURCES

Key Literature

Blau, J. & Green, L. (2015) Assessing the impact of a new approach to ocean management: Evidence to date from five ocean plans, *Marine Policy*, 56, 1-8

Commission of the European Communities (CEC) (2008) *Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU*, COM 791, CEC, Brussels
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0791:FIN:EN:PDF

Claydon, J. (2006) Marine spatial planning: a new opportunity for planners, *Town Planning Review* 77 (2), i-vi

Crowder, L. & Norse, E. (2008) Essential ecological insights for marine ecosystem-based management and marine spatial planning, *Marine Policy* 32 (5) 772– 778

Day, J. (2008) The need and practice of monitoring, evaluating and adapting marine planning and management: lessons from the Great Barrier Reef, *Marine Policy* 32 (5) 823-831

Douvere, F. (2008) The importance of marine spatial planning in advancing ecosystem-based sea use management, *Marine Policy* 32 (5) 762– 771

Ehler, C. (2014) *A Guide to Evaluating Marine Spatial Plans*, UNESCO, Paris

Ehler, C. & Douvere, F. (2007) *Visions for a Sea Change,* Report of the First International Workshop on Marine Spatial Planning, Intergovernmental Oceanographic Commission and Man and the Biosphere Programme, UNESCO, Paris
http://www.unesco-ioc-marinesp.be/uploads/documentenbank/d87c0c421da4593fd93bbee1898e1d51.pdf

European Parliament & Council (EPC) (2014) *Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 Establishing a Framework for Maritime Spatial Planning*, Official Journal of the European Union, L 257, 135-145

Fang, Q., Zhang, R., Zhang, L. & Hong, H. (2011) Marine functional zoning in China: experience and prospects, *Coastal Management,* 39 (6) 656-667

Flannery, W., O'Hagan, A.M., O'Mahony, C., Ritchie, H., Twomey, S. (2015) Evaluating conditions for transboundary Marine Spatial Planning: Challenges and opportunities on the island of Ireland. *Marine Policy 51*, 86–95

Foley, M., Halpen, B., Micheli, F. et al (2010) Guiding ecological principles for marine spatial planning, *Marine Policy*, 34, 955–966

Frazão Santos, C., Domingos, T., Ferreira, M.A., Orbach, M. & Andrade, F. (2014) How sustainable is sustainable marine spatial planning? Part I: linking the concepts, *Marine Policy* 49, 59–65

Gilliland, P. & Laffoley, D. (2008) Key elements and steps in the process of developing ecosystem-based marine spatial planning, *Marine Policy* 32 (5) 787-796

GHK Consulting (2004) *Potential Benefits of Marine Spatial Planning to Economic Activity in the UK*, RSPB, Sandy
http://www.rspb.org.uk/Images/MSPUK_tcm9-132923.pdf

Gopnik, M., Fieseler, C., Cantral, L., McClellan, K., Pendleton, L. & Crowder, L. (2012) Coming to the table: early stakeholder engagement in marine spatial planning, *Marine Policy,* 36, 1139-1149

Hassan, D., Kuokkanen, T. & Soininen, N. (eds) (2015) *Transboundary Maritime Spatial Planning: a Legal Perspective*, Earthscan, London

Jay, S. (2010) Built at Sea: Marine management and the construction of marine spatial planning, *Town Planning Review*, 81 (2), 173-191

Jay, S., Klenke, T., Ahlhorn, F. & Ritchie, H. (2012) Early European experience in marine spatial planning: planning the German exclusive economic zone, *European Planning Studies*, 20 (12), 2013-2031

Jay, S., Flannery, W., Vince, J., Liu, W., Xue, J.G., Matczak, M., Zaucha, J., Janssen, H., van Tatenhove, J., Toonen, H., Morf, A., Olsen, E., Suárez de Vivero, J.L., Rodríguez Mateos, J.C., Calado, H., Duff, J. & Dean, H. (2013) International Progress in Marine Spatial Planning, in Chircop, A., Coffen-Smout, S. & McConnell, M. (eds) *Ocean Yearbook*, Vol 27, 171-212, Martinus Nijhoff, Leiden

Kenchington, R. & Day, J. (2011) Zoning, a fundamental cornerstone of effective Marine Spatial Planning: lessons learnt from the Great Barrier Reef, Australia, *Journal of Coastal Conservation*, 15, 271–278

Kidd, S., & Ellis, G. (2012) From the land to sea and back again? Using terrestrial planning to understand the process of marine spatial planning, *Journal of Environmental Policy and Planning,*14 (1), 49-66

Mayer, I, Zhou, Q., Lo, J., Abspoel, L., Keijser, X., Olsen, E., Nixon, E. & Kannen, A. (2013) Integrated, ecosystem-based Marine Spatial Planning: Design and results of a game-based, quasi-experiment, *Ocean & Coastal Management* 82, 7-26

MRAG (2008) *Legal Aspects of Maritime Spatial Planning*, report to DG Maritime Affairs & Fisheries, European Commission, Brussels
http://ec.europa.eu/maritimeaffairs/pdf/legal_aspects_msp_report_en.pdf

Nautical Institute (2013) *The Shipping Industry and Marine Spatial Planning*, unpublished document

Olsen, S.B., McCann, J.H. & Fugate, G. (2014) The State of Rhode Island's pioneering marine spatial plan, *Marine Policy* 45, 26–38

Peel, D. & Lloyd, G. (2004) The Social Reconstruction of the Marine Environment: Towards Marine Spatial Planning?, *Town Planning Review* 75 (3) 357-378

Plasman, I.C. (2008) Implementing marine spatial planning: A policy perspective, *Marine Policy* 32 (5) 811-815

Pomeroy, R. & Douvere, F. (2008) The engagement of stakeholders in the marine spatial planning process, *Marine Policy* 32 (5) 816-822

St. Martin, K. & Hall-Arber, M. (2008) The missing layer: Geo-technologies, communities, and implications for marine spatial planning, *Marine Policy*, 32 (5) 779-786

Scarff, G., Fitzsimmons, C., Gray, T. (2015) The new mode of marine planning in the UK: Aspirations and challenges, *Marine Policy* 51, 96–102

Slater, A. (2012) What is marine spatial planning? *Environmental Law Review* 14, 1–6

Smith, H., Ballinger, R. & Stojanovic, T. (2012) The spatial development basis of marine spatial planning in the United Kingdom, *Journal of Environmental Policy and Planning*, 14 (1), 29–47

Stelzenmueller, V., Lee, J., South, A., Foden, J. & Rogers, S. (2013) Practical tools to support marine spatial planning: A review and some prototype tools, *Marine Policy* 38, 214-227

UNEP & GEF-STAP (2014) *Marine Spatial Planning in Practice: Transitioning from Planning to Implementation*, UNEP, Nairobi

Zaucha, J. (2012) Offshore Spatial Information: Maritime Spatial Planning in Poland, *Regional Studies*, 64 (4), 459-473

Sources of Information

MSP Arena
Resource hub of the Erasmus+ Strategic Partnership on MSP
www.msp-education.eu

Open Channels
Knowledge hub for marine planning and management

https://www.openchannels.org

European MSP Platform
Essential EU resources for implementing MSP
www.msp-platform.eu

MSP Research Network
Community of MSP researchers
http://www.msprn.net

UNESCO-IOC
Information on the international development of MSP
http://msp.ioc-unesco.org

European Commission (DG Mare)
Information on the roll-out of MSP in the European Union
https://ec.europa.eu/maritimeaffairs/policy/maritime_spatial_planning_en

ABPmer
Series of papers on the implementation of MSP from a UK consultancy
http://www.abpmer.net/downloads/default.asp?location=ABPmer&request=Marine_Spatial_Planning&keepThis=true&TB_iframe=true&height=550&width=960

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