

Newsletter 3

September 2020

BONUS BASMATI

Supporting maritime spatial planning with science

The BONUS BASMATI project (July 2017 – September 2020) disseminates its main results under the title “BONUS BASMATI – Supporting Maritime Spatial Planning with Science” through three means of communication:

- 1) The BONUS BASMATI summary video (YouTube)
- 2) The BONUS BASMATI summary report (pdf)
- 3) The BONUS BASMATI final webinar (video presentations and material)

Links to these and other project outputs are available at the project website:

www.bonusbasmati.eu

This newsletter summarizes the main results of the project.





Supporting maritime spatial planning with science

The project result dissemination is divided into two main sections: *Concepts and approaches*, and *Platforms and tools*. The dissemination activities are aimed at the wider maritime spatial planning community, planners, decision makers, relevant stakeholders and anybody interested in the sustainable use of the seas, concentrating on the practical solutions for an ecosystem-based approach in maritime spatial planning across borders and scales.

Concepts and approaches for decision support in Maritime Spatial Planning

Maritime spatial planning in the Baltic Sea region is a rather new concept, and the approaches vary between countries. Still, cross-border co-operation is essential within a region where the sea does not recognize any territorial borders, and common planning approaches pave way for more fluent future MSP processes.



Photo: Julia Ajanko

One of the BONUS BASMATI outcomes is a sustainability assessment framework, which can help planners to select relevant indicators when assessing the impacts of plan proposals. Sustainable use of the sea areas is getting more and more challenging due to various different interests and values related to the sea. Thus, the framework provides a practical method for analysing how new marine uses will impact the already existing activities, and how the new uses might affect the ecosystem services and human benefits derived from them

When zooming in to the ecosystem services, BONUS BASMATI developed also a method for ecosystem service assessment, with which marine habitats can be tangibly linked to the services they supply for humans. Ecosystem based approach to maritime spatial planning is emphasized by the European Union MSP directive, and with the help of the new BONUS BASMATI method, the ecological as well as the socio-economic value of ecosystems can be made more accessible for decision makers.





Regarding data management, BONUS BASMATI developed a new data harmonization framework, which can foster better use of data in planning processes. MSP is a highly data intensive process, but with common data management methods planners can save time and energy within cross-border and cross-scale co-operation. The new data harmonization framework includes the often missing spatial and temporal data dimensions. The spatial dimensions acknowledge the three-dimensionality of the sea, and provides information on whether the objects of interest occur in the surface water, at the sea bottom or somewhere in between. The temporal dimensions describe the occurrence, frequency and timeline of data. Knowing where, when and how often things happen supports the co-location of activities.

Stakeholder involvement is essential for proper Maritime Spatial Planning processes, and it is important to engage the stakeholders from the very beginning. Before choosing the right methods for the involvement, it needs to be understood who the relevant stakeholders are, and which interests and conflicts are central in the planning area. BONUS BASMATI has addressed this issue by producing a handbook for planners, with information and practical tips for working with stakeholders during the whole MSP processes.

Platforms and tools supporting decision making in Maritime Spatial Planning

Stakeholder involvement is a tricky process and useful platforms and tools are not yet common. Now the process can be eased with the help of a new web map application, the Baltic Explorer, which was developed to facilitate collaboration in planning workshops. The Baltic Explorer combines easy-to-use spatial tools with easy-to-access data from spatial data infrastructures of several maritime actors. Users can collaborate on multiple devices in the same map-based workspace, where each user can see changes made by the others.

As a rather new entity, maritime spatial planning has experienced a lack of tools to support the allocation of marine space. To fill this gap, BONUS BASMATI has produced a suite of digital decision support tools, applying the ecosystem-based approach. The suite includes tools for site selection for new maritime activities, for ecosystems service assessments, for assessing the cumulative impacts of activities, as well as for analyzing conflicts and synergies between different uses.

BONUS BASMATI TOOLS:

- 1) *Baltic Explorer – collaborative GIS approach for new interactive MSP*
- 2) *SPACEA – a GIS toolbox to facilitate easy spatial and environmental suitability analysis.*
- 3) *ESA4MSP – an ecosystem service assessment tool.*
- 4) *MYTILUS – a toolset for assessing the impacts of maritime activities.*
- 5) *SEANERGY – a tool for analysing conflicts and synergies between different marine uses.*

For more detailed information on the project findings and the *BONUS BASMATI - Supporting maritime spatial planning with science* booklet visit <https://bonusbasmati.eu>



Photo: Julia Ajanko

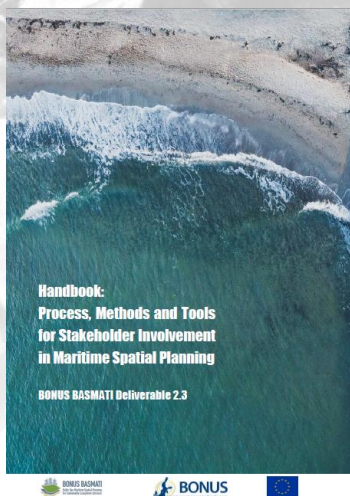


Handbook for Stakeholder Involvement in Maritime Spatial Planning

The BONUS BASMATI produced a guide for planners under the title *Handbook: Process, Methods and Tools for Stakeholder Involvement in MSP*. The handbook provides planners with practical guidance to work with stakeholder involvement in all stages of the MSP cycle. The ideas and approaches are based on experiences from planners in the Baltic Sea Region.

The handbook explores some of the key issues related to stakeholder involvement, including:

- *How to understand stakeholder needs?*
- *Who to involve?*
- *When is the appropriate time to involve them?*
- *What methods and tools are needed?*
- *What are the drawbacks?*
- *How can a process leader carry an effective, transparent and fair process?*



The handbook together with summaries in six languages is available online at the project website.



Photo: Julia Ajanko

Special issue in the Nordregio Magazine

A special issue on MSP titled *BONUS BASMATI: maritime planning for the future* was released in the Nordregio Magazine in May 2020. The magazine is a popular publication aimed for planners and the wider public.

Read the magazine online to see what eight BONUS BASMATI researchers had to say on the following topics:

- Assessing ecosystem services should be essential to all maritime spatial planning
- Planning maritime spaces is something of a balancing act
- Seamless data sharing in maritime spatial planning

<https://nordregio.org/nordregio-magazine/issues/bonus-basmati-maritime-planning-for-the-future/>



Latest scientific articles

Establishing the links between marine ecosystem components, functions and services: An ecosystem service assessment tool. Armoškaitė A, Puriņa I, Aigars J, Strāķe S, Pakalniete K, Frederiksen P, Schrøder L, Hansen HS, 2020. *Ocean and Coastal Management* 193, 105229.

The paper introduces a new tool for assessing marine ecosystem services, improving the level of detail of the assessments. The tool links marine ecosystem components, functions and services, and quantifies the ecosystem service supply based on expert opinion. It provides an opportunity to estimate the impacts of habitat degradation on ecosystem services.

Applying a combined geospatial and farm scale model to identify suitable locations for mussel farming. von Thenen M, Maar M, Hansen HS, Friedland R, Schiele KS 2020. *Marine Pollution Bulletin* 156, 111254.

The paper uses combined GIS analysis to model the sustainability of different sites for mussel farms in the south-western Baltic Sea. The reasoning behind the analysis is that mussel farming may be useful when trying to mitigate eutrophication. The model creates an estimate of the nutrient removal by mussel farming, and the impact on water transparency.

A structured indicator pool to operationalize expert-based ecosystem service assessments for marine spatial planning von Thenen M, Frederiksen P, Hansen HS, Schiele KS, 2020. *Ocean & Coastal Management* 105071.

In MSP the ecosystem services produced by the environment in the planning area need to be noted in the planning processes. The paper presents a pool of indicators for assessing the flow of marine ecosystem services. The services are categorized into capacity, service, benefit and value indicators following the structure of the ecosystem service cascade.

Assessing use-use interactions at sea: A theoretical framework for spatial decision support tools facilitating co-location in maritime spatial planning Bonnevie IM, Hansen HS, Schrøder L, 2019. *Marine Policy* 106, 103533

The paper develops a method for assessing interactions between co-located human activities in MSP. Four spatial-temporal links are identified to study these use-use interactions. It is suggested that future decision support tools should better include this use-use interactions links to increase the focus on synergies between uses and prioritization between conflicts in the planning area.

Lost in space and time? A conceptual framework to harmonise data for marine spatial planning Holzhüter W, Luhtala H, Hansen HS, Schiele KS, 2019. *International Journal of Spatial Data Infrastructures Research* 14, 108–132.

The scientific paper proposes a conceptual framework to categorize the spatial and temporal dimensions of data used in MSP. It also introduces approaches for managing both non-spatial and spatial information simultaneously and for selecting a suitable metadata format. The presented method provides an easy and intuitive classification, which can lead to more detailed and transparent data for MSP.



Photo: Julia Ajanko



BONUS BASMATI has been seen and heard around Europe

The BONUS BASMATI partners have contributed to or organised 74 events with different sizes, purposes, locations and scopes. The events have been organized in 15 different countries, with 47 events in countries surrounding the Baltic Sea, and 17 events in other European countries. In addition, 10 online events have been organized. Out of these, 32 events were aimed mostly at national, and 42 at international audiences. The events consisted of stakeholder workshops, conferences (practical and scientific), meetings and educational events, where partner members contributed by giving presentations and lectures, organizing demonstrations and practicals, and discussing with stakeholders and planners.

For more information on the activities of the BONUS BASMATI project see [Deliverable 7.5 Target group meetings](#) on the project website.



Photo: Hanna Luhtala

Highlights of latest events

The final seminar

The final scientific seminar of the BONUS BASMATI project was organized as a webinar on September 9. 2020. Altogether, 76 participants, out of which 24 were members of the project staff, registered for the final seminar. In the webinar, the BONUS BASMATI staff presented the essential project results to the audience using the Zoom videoconferencing platform. The number of participants simultaneously online was 65 at the highest. The presentations are available at the BONUS BASMATI final webinar website:

<https://bonusbasmati.eu/results-material/final-webinar/>

SeaPlanSpace Seminars

BONUS BASMATI project partners from AU, AAU and Nordregio organized four events under the SeaPlanSpace seminar series on maritime spatial planning aimed at stakeholders and planners. The seminars took place between January and March 2020 in Denmark.

Stakeholder workshop in Riga

The integrated ecosystem service assessment approach employed in the Latvian Case study and the Baltic Explorer was presented at a workshop on MSP. Representatives from the Latvian national and regional ministries and authorities, as well as NGOs attended the workshop. The event was hosted by the Latvian Institute of Aquatic Ecology and the Latvian Ministry of Environmental Protection and Regional Development on the 20th of February 2020 in Riga, Latvia

The Maritime Spatial Planning Forum: Global Meets Regional

The MSP forum was organized in Riga, Latvia on November 19-21 2019. The BONUS BASMATI Latvian case study was presented at a workshop session, and Juha Oksanen of FGI participated as a panelist, presenter and with an interactive demonstration of Baltic Explorer.

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