



briefing

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AUGUST 2017

BONUS call 2017: Synthesis

- Call opens: **9 August 2017**
- Preregistration deadline: **9 October 2017**, 17.00 CET
- Proposal submission deadline: **9 November 2017**, 17.00 CET
- Budget: Minimum EUR 2 million
- Funding schemes: Collaborative projects
- Maximum funding available per project: Up to EUR 450 000
- Project implementation: Projects start in September 2018 at the earliest with each project running for a maximum of eighteen months
- Topics addressed: Each proposal must address one of the topics called for in the 'BONUS call 2017: Synthesis' (see pages 2–3)

What is expected from a synthesis project?

■ Knowledge synthesis is central for knowledge translation from research community to practice and for ensuring evidence-based decision making. This call sets out to synthesise the research outputs that address the challenges for sustainable use of the Baltic Sea ecosystem services¹. As inherent elements of knowledge synthesis, the proposed projects are expected to perform critical review of research outputs as well as identify the knowledge gaps and further research needs. Each project funded will be also expected to analyse how successfully the outputs of science have been taken up at different levels of public governance and management, and by industry, and suggest ways to enhance the societal significance and impact of research and innovation relevant to the specific topic. Topics selected for this call extend across the strategic objectives and themes of the BONUS strategic

research agenda (SRA); they require an interdisciplinary approach and shall therefore be examined from different angles, e.g. natural science, technology, economy, social aspects.

Projects are expected to analyse as broad body of research outputs as necessary for robust and unbiased review and credible gap analysis, including, but not limited to, the outputs of research done within BONUS. Wherever possible and appropriate, projects are expected to apply systematic review methodology, combined, where necessary, with a narrative approach. If not stated otherwise, each project is expected to produce as its deliverables at least three review papers devoted to different aspects of the problem, each accompanied by a policy brief(s) distributed to the potential users in a targeted manner as well as appropriate, popular dissemination materials targeting broad society.

¹ See Box 1, BONUS strategic research agenda 2011-2017, update 2014. BONUS Publication No. 14

Topics called for in the 'BONUS call 2017: Synthesis'

Sustainable marine and freshwater aquaculture development perspectives in the Baltic Sea region (relevant to the themes 3.5, 2.3, 4.2 of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A comprehensive analysis of the state of aquaculture in the Baltic Sea region
- A detailed policy framework analysis at national, Baltic Sea region and EU levels in areas relevant to development of sustainable aquaculture production
- Scientifically justified criteria to enable environmentally balanced, economically viable and socially acceptable aquaculture production across the Baltic Sea region
- An outlook of future aquaculture development in the Baltic Sea region based on these criteria to identify the key needs for new knowledge and innovative solutions

A synthesis of knowledge on the Baltic Sea food webs including an outlook for priority future studies (relevant to the themes 1.3, 1.2, 2.2 of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A synthesis of our knowledge on the Baltic Sea food webs covering all trophic levels and their linkage to nutrient cycling
- An outlook of food web and ecosystem functioning research in the Baltic Sea, taking into account the priority knowledge needs (gaps), new methodological approaches and diversity of the Baltic Sea ecosystem
- A feasibility study on application of food web models to validate the use of indicators and associated threshold values under the EU Marine Strategy Framework Directive Descriptor 4 and to implementation of the EU Common Fisheries Policy
- An analysis of how the knowledge gained in this area has been and could be used more efficiently in order to ensure sustainable use of the Baltic Sea ecosystem services and biological resources

Towards improved environmental status assessment and monitoring systems for the Baltic Sea (relevant to the themes 5.1, 1.1, 1.4, 4.1, 3.3 of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A critical analysis of currently applied monitoring systems, their correspondence with the assessment requirements under different policies and identification of the priority ways of improvement
- A review of current development of novel cost-efficient marine monitoring and assessment approaches and methodologies applicable in the Baltic Sea
- A proposal for a renewed monitoring system for the Baltic Sea, that closes the existing information gaps and cross-sector data gathering and handling disconnects, takes into account the state-of-the-art observation methodologies and harmonises the requirements within the EU data collection, HELCOM Baltic Sea Action Plan, EU Water Framework Directive, EU Marine Strategy Framework Directive and EU Common Fisheries Policy frameworks

Policy instruments and institutions for nutrient abatement (relevant to the themes 4.1, 4.2, 1.1 of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A knowledge synthesis on designing instruments and institutions for nutrient abatement
- An assessment of implementing nutrient abatement instruments and institutions worldwide
- Both knowledge synthesis and assessment of practical experience shall analyse such characteristics as e.g. cost-effectiveness and targeting, transaction costs for e.g. verification, monitoring and administration, distribution of costs, fairness and equity concerns, the spatial scale of policy instrument implementation and its effect, cross-sectoral character, multi-functionality of abatement measures, creativity in fostering new solution(s) for nutrient reduction and ability to invite actors to participate in protection activities
- An outlook on future priority work directions in developing fit-for-purpose nutrient abatement instruments and institutions for the Baltic Sea region

High frequency automated in situ observations in the Baltic Sea (relevant to the themes 5.2, 5.1 of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A review of the experiences with high frequency automated observations in the Baltic Sea
- An analysis of applicability of the outputs of high frequency automated observations (e.g. buoys, drifters, gliders, ARGOfloats, ferryboxes and other sensors on ships of opportunity, seabed observatories etc.) for assessment of the Baltic Sea ecosystem status
- Suggestion on ways of assimilation of the high frequency observation data into data pools used for environmental state assessment, and other practical applications
- An analysis of technical challenges to be resolved to ensure broader use of high frequency observations for obtaining new data about the Baltic Sea, including cross-sector and cross-border cooperation and coordination
- Proposals for better integration of outputs of high frequency observations into international marine data nodes e.g. EMODNET
- Suggestions for future development of high frequency in situ observations in the Baltic Sea

Development of a unified access point for science-based virtual decision support tools for ecosystem-based management in the Baltic Sea and its drainage (relevant to all five strategic objectives of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A review of the existing virtual decision support tools for ecosystem-based management in the Baltic Sea and its drainage
- Creation of a comprehensive catalogue of the existing science-based virtual decision support tools with unified access point and proposal of a mechanism for its sustainability and future development. Elaboration of a set of definitions, as well as quality and performance criteria for such tools
- Suggestions for the most needed decision support tools to be developed by future projects

Non-monetary values of the Baltic Sea ecosystem goods and services provided to human lifestyles and well-being (relevant to the themes 4.2, 2.2, 3.4 of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A review of the ecosystem services provided to humans by the Baltic Sea and linking them to human lifestyles and well-being
- Identifying the links and possible positive and negative synergies between different marine ecosystem services
- A review of knowledge on human health and well-being effects of the Baltic Sea ecosystem
- An analysis of methods and models available to estimate non-monetary values of marine ecosystem services
- An analysis of methods and models available to estimate monetary values of marine ecosystem services

Improved maritime risk analysis and mitigation (relevant to the themes 3.1, 3.2, 5.3 of the BONUS strategic research agenda, update 2014)

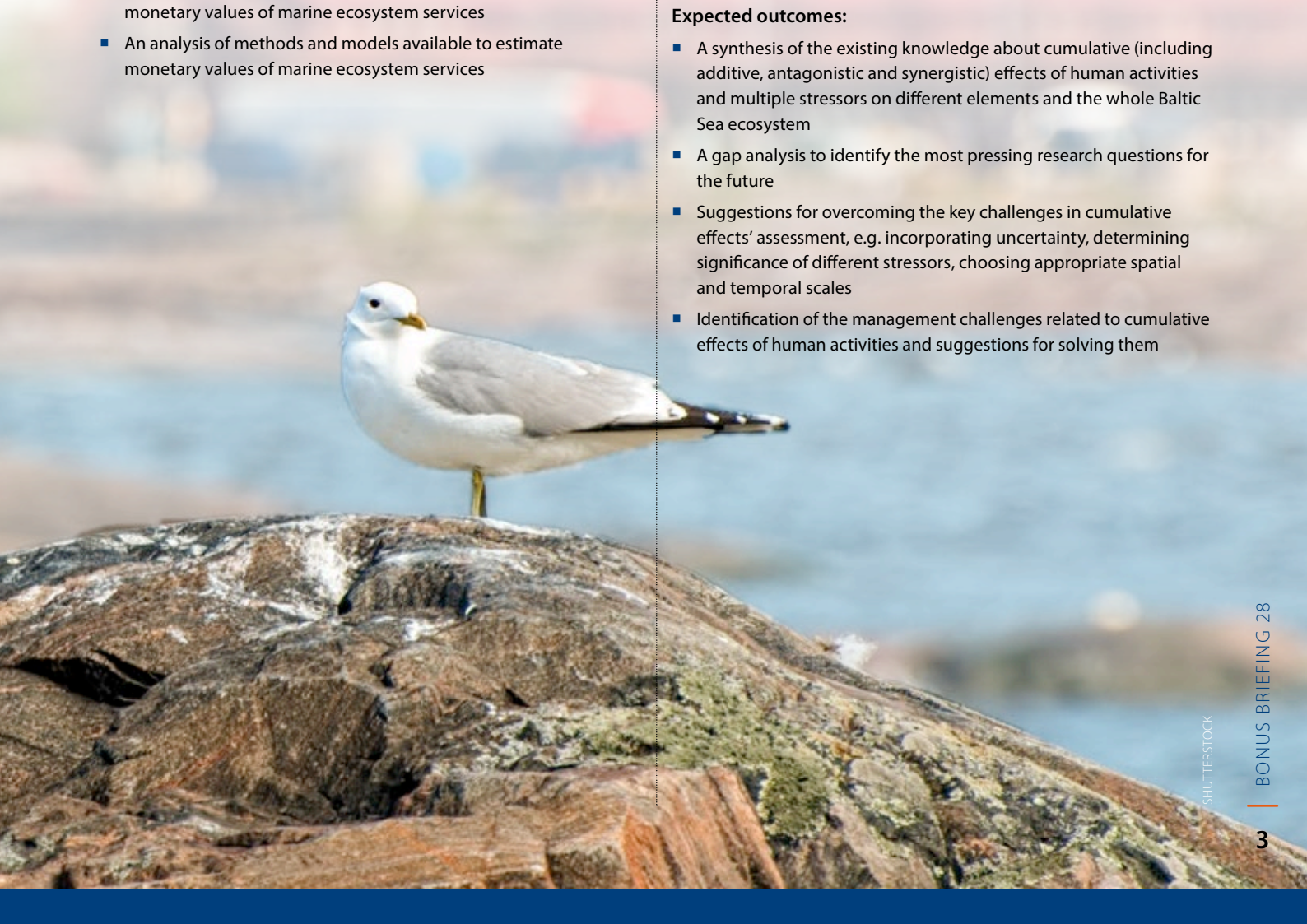
Expected outcomes:

- A review of the risk analysis methods and decision support tools available for authorities in the Baltic Sea region to cost-effectively decrease maritime and environmental risks (especially associated with shipping)
- A review of the underlying scientific basis and efficacy of the available methods and decision support tools for the prevention of maritime accidents and crisis management, in particular considering the human behaviour in various accidental scenarios, enhancing the safety cultures, effects of proper training and various aspects of interaction between humans and technical tools
- A review of the existing knowledge and analysis of future research priorities and innovation needs for advancement of e-navigation in daily shipping practices, including such aspects as acquiring and exchanging situational information and safest routing both in open water and ice conditions
- A review of the existing knowledge and analysis of future research priorities and innovation needs for mitigation of the risks associated with the future maritime activities related to the renewable offshore energy developments

Cumulative effects of human activities: linear and non-linear interactions and knowledge gaps (relevant to the themes 1.1, 1.2, 1.4, 3.2, 3.4, 4.3, 5.1 of the BONUS strategic research agenda, update 2014)

Expected outcomes:

- A synthesis of the existing knowledge about cumulative (including additive, antagonistic and synergistic) effects of human activities and multiple stressors on different elements and the whole Baltic Sea ecosystem
- A gap analysis to identify the most pressing research questions for the future
- Suggestions for overcoming the key challenges in cumulative effects' assessment, e.g. incorporating uncertainty, determining significance of different stressors, choosing appropriate spatial and temporal scales
- Identification of the management challenges related to cumulative effects of human activities and suggestions for solving them



Eligibility conditions

- Proposal is preregistered by the deadline **9 October 2017**, 17.00 CET
- Proposal is submitted to the BONUS EPSS by the deadline **9 November 2017**, 17.00 CET
- At least three legal entities participate in the proposal, each of which is established in a different EU member state or associated country; at least two of these countries must be BONUS participating states (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden)
- Proposal is complete with all required parts including the description of work, all administrative forms and declarations of the applicants
- Proposal addresses one topic opened for this call
- Total requested BONUS contribution including contributions from both the BONUS EEIG and the BONUS participating states does not exceed the maximum of EUR 450 000
- Applicants requesting funding less than 100% of the total costs have included a funding commitment statement confirming that the necessary resources to cover their part of the costs exist
- The legal entity acting as the project coordinator is established in one of the BONUS participating states

Evaluation and decision procedure

- Proposals on all topics opened for this call are evaluated in accordance with the evaluation guidelines by independent expert evaluators and ranked. The ranking list is the basis for the funding decision
- The evaluation follows a single stage procedure. Proposals are evaluated on the basis of three core criteria (threshold score/the maximum score):
 - scientific excellence (4/5)
 - quality and efficiency of the implementation and the management (3/5)
 - expected impact of the project (4/5).
- The total score threshold is 12, below any of the three thresholds specified no project will be funded. Scores may be awarded with 0.5 point step
- The evaluation panel will determine a priority order for proposals which have been awarded the same total score. The following approach will be applied:
 - Proposals will be prioritised according to the scores they have been awarded for the criterion of scientific excellence
 - If necessary, any further prioritisation will be based on other appropriate characteristics, to be decided by the panel
- The final decision about which projects are recommended to be funded is made by the BONUS Steering Committee strictly according to ranking list compiled by the appointed evaluation panel
- The BONUS Steering Committee will prioritise for funding the highest scoring proposal under each of the nine topics included in the call

Indicative timetable

- Evaluation and panel meeting: January 2018
- Announcement of the evaluation outcome: February 2018
- Earliest start of the projects (after grant agreements have been concluded): September 2018

Download guidance to applicants from www.bonusportal.org/synthesiscall

- BONUS strategic research agenda 2011–2017, update 2014
- Guide for applicants specific to the 'BONUS call 2017: Synthesis'
- Guide for proposal evaluators specific to the 'BONUS call 2017: Synthesis' (describing how the proposals are evaluated)
- Model BONUS grant agreement (legally binding basis for BONUS funding)

Contact

helpdesk@bonusportal.org for call related advice

epss@bonusportal.org for technical advice on proposal submissions

More information about BONUS:

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BONUS is supported by the national funding institutions in the eight EU member states around the Baltic Sea and the EU. Scientists from Russia participate in BONUS through bilateral agreements.

