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<b>Document title</b>	Update on the activities of BONUS
<b>Code</b>	5-1
<b>Category</b>	INF
<b>Agenda Item</b>	5 - Activities of the Commission during 2015 and contributions to the work of the Helsinki Commission
<b>Submission date</b>	3.3.2016
<b>Submitted by</b>	BONUS
<b>Reference</b>	

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## Background

1. In October 2010, based on co-decision by the European Parliament and the Council, BONUS, the joint Baltic Sea research and development programme was established under Article 185 of the Treaty on the Functioning of the European Union (TFEU Article 185).
2. BONUS is the first and only programming and funding initiative integrating EU member states' marine and maritime research in a macroregional scale. By this it evolves into a programme not only coordinating and delivering cutting edge science and underpinning national and EU policies, but also contributing increasingly to sustainable blue growth and related EU strategies.
3. BONUS supports long-term sustainable development and ecosystem based management of the Baltic Sea region, the HELCOM Baltic Sea Action Plan, the EU Marine Strategy Framework Directive and other European, regional and national coastal and marine environmental policies and plans.
4. BONUS is funded by national funding institutions in the eight EU member states around the Baltic Sea (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden) and the EU. Russia participates in BONUS through bilateral agreements.
5. The funding for years 2010-2017 is EUR 100 million, of which half comes from the national funding institutions and half from the EU Seventh Programme for research, technological development and demonstration.
6. BONUS strategic research agenda was developed in 2010-11 together with over 800 stakeholders across the Baltic Sea region, and is continuously updated to reflect the policy development. The agenda underpins all BONUS calls and therefore projects, and commits BONUS to engage with the end-users and the society for the whole duration of the programme's and projects' existence.
7. BONUS serves as a model to other European regional seas and areas, such as the Black Sea, the Mediterranean and North Sea as well as for instance the catchment area of Danube River, in implementing sustainable development.
8. The most encouragingly positive result of the independent interim assessment of the BONUS programme, commissioned by the European Commission in 2014, was communicated to the European Parliament and Council in early 2015.

## Current status

9. Currently there are 28 BONUS funded projects being implemented: 15 research projects worth a total of EUR 43 million and 13 innovation projects worth a total of EUR 7 million covering 14 out of 19 themes of the BONUS strategic research agenda, as shown in the table below:

RESEARCH THEMES (ABBREVIATED TITLES)	CURRENT STATUS OF THE KEY THEMES' COVERAGE
1.1 Dynamics of biogeochemical processes	
1.2 Changing biodiversity	BAMBI, BIO-C3
1.3 Food web structure and dynamics	
1.4 Impacts of hazardous substances	
2.1 Changes in catchment land cover patterns	SOILS2SEA
2.2 The role of the coastal systems	COCOA
2.3 Integrated coastal management	BALTCOAST
2.4 Eco-technological approaches	MICROALGAE, OPTITREAT, PROMISE, SWERA, ZEB
3.1 Maritime risk analysis and management	STORMWINDS
3.2 Effects of air and water pollution by shipping	SHEBA
3.3 Improving stock assessments, spatial heterogeneity of stocks	INSPIRE
3.4 Evaluation framework for fisheries management	
3.5 Sustainable aquaculture in the Baltic Sea	
4.1 Governance structures, performance and policy instruments	CHANGE, GO4BALTIC, GOHERR, MIRACLE
4.2 Linking ecosystem goods and services to human lifestyles and well-being	BALTICAPP
4.3 Maritime spatial planning	BALTSPACE
5.1 Integrated monitoring programmes	BLUEPRINT
5.2 Innovative measurement techniques	AFISMON, FERRYScope, FISHVIEW, HARDCORE, PINBAL
5.3 User-driven ICT services	ANCHOR, ESABALT, GEOILWATCH

10. The themes so far insufficiently covered are addressed in BONUS call 2015: Blue Baltic, which is currently open until 10 March 2016 with a minimum of EUR 30 million funding to be distributed for themes opened in the call [www.bonusportal.org/bluebaltic](http://www.bonusportal.org/bluebaltic). Decisions about projects to be funded will be made in June 2016.
11. Projects funded are of high excellence and relevance and transnational. They produce knowledge, scientific evidence and innovation solutions needed for policymakers and other end-users. The interdisciplinarity of the projects ensures that natural sciences as well as socio-economic disciplines are part of the projects.
12. BONUS model consists of 'virtual common pot' funding mechanism and joint rules to all BONUS members.
13. BONUS encourages scientists' active participation in policy communications. In the previous phase of BONUS in 2009-2011, the BONUS+ programme tested the mechanisms of collaboration in a call that funded 16 research projects worth EUR 22 million. The researchers of these projects served as members or observers in 570 stakeholder and scientific committees and these projects contributed to 37 EC consultations and over 150 public policies and governance action as well as modified 50 policy documents and action plans.
14. During the first year of implementation BONUS call 2012: Viable ecosystem projects participated in tens of different stakeholder committees and organised stakeholder events of their own. A total of 179 BONUS researchers are members in the stakeholder committees, amongst other in 80 different ICES, 16 HELCOM and 13 European Commission led working groups. In the first year, 13 of projects' stakeholder events were organised that amounted to attendance of more than 200 participants. Also, these projects attracted 1.35 MEUR of infrastructure and 1.65 MEUR of other type in kind contributions on top of BONUS funding (4.69 MEUR).

## Future

15. The outline for the continuation of the BONUS programme for establishment of the joint Baltic Sea and the North Sea research and innovation programme, based on the BONUS example outlined above, was submitted to the Commission on 11 November 2015 by the Minister of Education and Research of the Republic of Estonia.
16. Participating states include Belgium, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, The Netherlands, Poland and Sweden. The negotiations with the United Kingdom to join are ongoing.
17. The joint Baltic Sea and the North Sea research and innovation programme is envisaged to be implemented 2018-2023 with a volume of EUR 200 million and 50% funding from the EU and it is

designed to underpin and develop EU and national policies and strategies with particular consideration of Europe's blue growth strategy.

18. The overarching objective of this proposed new programme is to elevate the Northern European regions' research and innovation capacity to a level necessary to achieve a decisive boost in the development of a sustainable marine and maritime economy.
19. The outline document describes the main objectives, scope and basic functioning mechanisms of the programme as well as gives an overview of the two seas' ecosystems linked to the surrounding societies and respective types of policy responses.
20. Article 185 of the Treaty on the Functioning of the European Union (TFEU Article 185), linked to Horizon 2020, the EU Framework Programme for Research and Innovation is considered the most appropriate, efficient and impactful funding instrument for the implementation of the new proposed programme.
21. Next in the process will follow the Commission's ex ante assessment of the BONUS programme after which the Commission will draft the legislative proposal and carry out inter-service consultations.
22. The process for seeking the co-decision of the European Parliament and the Council will commence when the Commission sends the proposed "BONUS 2" legislation for the European Parliament's and the Council's consideration and negotiations in mid-2017.
23. For further information, please contact the BONUS Secretariat: Executive Director Kaisa Kononen [kaisa.kononen@bonuseeig.fi](mailto:kaisa.kononen@bonuseeig.fi), +358 40 5811189 and Communications Manager Maija Sirola [majja.sirola@bonuseeig.fi](mailto:majja.sirola@bonuseeig.fi), +358 40 3520076 – website: [www.bonusportal.org](http://www.bonusportal.org) | [www.bonusprojects.org](http://www.bonusprojects.org) 520076 –website: [www.bonusportal.org](http://www.bonusportal.org) | [www.bonusprojects.org](http://www.bonusprojects.org)

### Ongoing BONUS research projects

**BALTCOAST** A systems approach framework for coastal research and management in the Baltic

**BALTICAPP** Wellbeing from the Baltic Sea – applications combining natural science and economics

**BALTSPACE** Towards sustainable governance of Baltic marine space

**BAMBI** Baltic Sea marine biodiversity – addressing the potential of adaptation to climate change

**BIO-C3** Biodiversity changes – investigating causes, consequences and management implications

**BLUEPRINT** Biological lenses using gene prints – developing a genetic tool for environmental monitoring in the Baltic Sea

**CHANGE** Changing antifouling practices for leisure boats in the Baltic Sea

**COCOA** Nutrient cocktail in coastal zones of the Baltic Sea – improving understanding of the transformation and retention of nutrients and organic matter in the coastal zone

**GO4BALTIC** Coherent policies and governance of the Baltic Sea ecosystems

**GOHERR** Integrated governance of Baltic herring and salmon stocks involving stakeholders

**INSPIRE** Integrating spatial processes into ecosystem models for sustainable utilisation of fish resources

**MIRACLE** Mediating integrated actions for sustainable ecosystem services in a changing climate

**SHEBA** Sustainable shipping and environment of the Baltic Sea

**SOILS2SEA** Reducing nutrient loadings from agricultural soils to the Baltic Sea via groundwater and streams

**STORMWINDS** Strategic and operational risk management for wintertime maritime transportation system

Ongoing BONUS innovation projects:

**AFISMON** - Development of the current Automatic Flow Injection Sampler to monitor microbially driven biogeochemical processes in the Baltic Sea water

**ANCHOR** - The captain assistant system for navigation and routing during operations harbour

**ESABALT** - Enhanced situational awareness to improve maritime safety in the Baltic

**FERRYSCOPE** - Bridging the divide between satellite and shipborne sensing for Baltic Sea water quality assessment

**FISHVIEW** - Assessing fish passages by the use of a robotic fish sensor and enhanced digital imaging

**GEOILWATCH** - Geopositional early warning system integration for disaster prevention in the Baltic Sea

**HARDCORE** - Harnessing coastal radars for environmental monitoring purposes

**MICROALGAE** - Cost efficient algal cultivation systems – a source of emission control and industrial development

**OPTITREAT** - Optimisation of small wastewater treatment facilities

**PINBAL** - Development of a spectrophotometric pH-measurement system for monitoring the Baltic Sea

**PROMISE** - Phosphorus recycling of mixed substances

**SWERA** - Sunken wreck environmental risk assessment

**ZEB** - Zero emissions in the Baltic Sea