



**BONUS**

SCIENCE FOR A BETTER FUTURE OF THE BALTIC SEA REGION

**Review 2014**





# BONUS

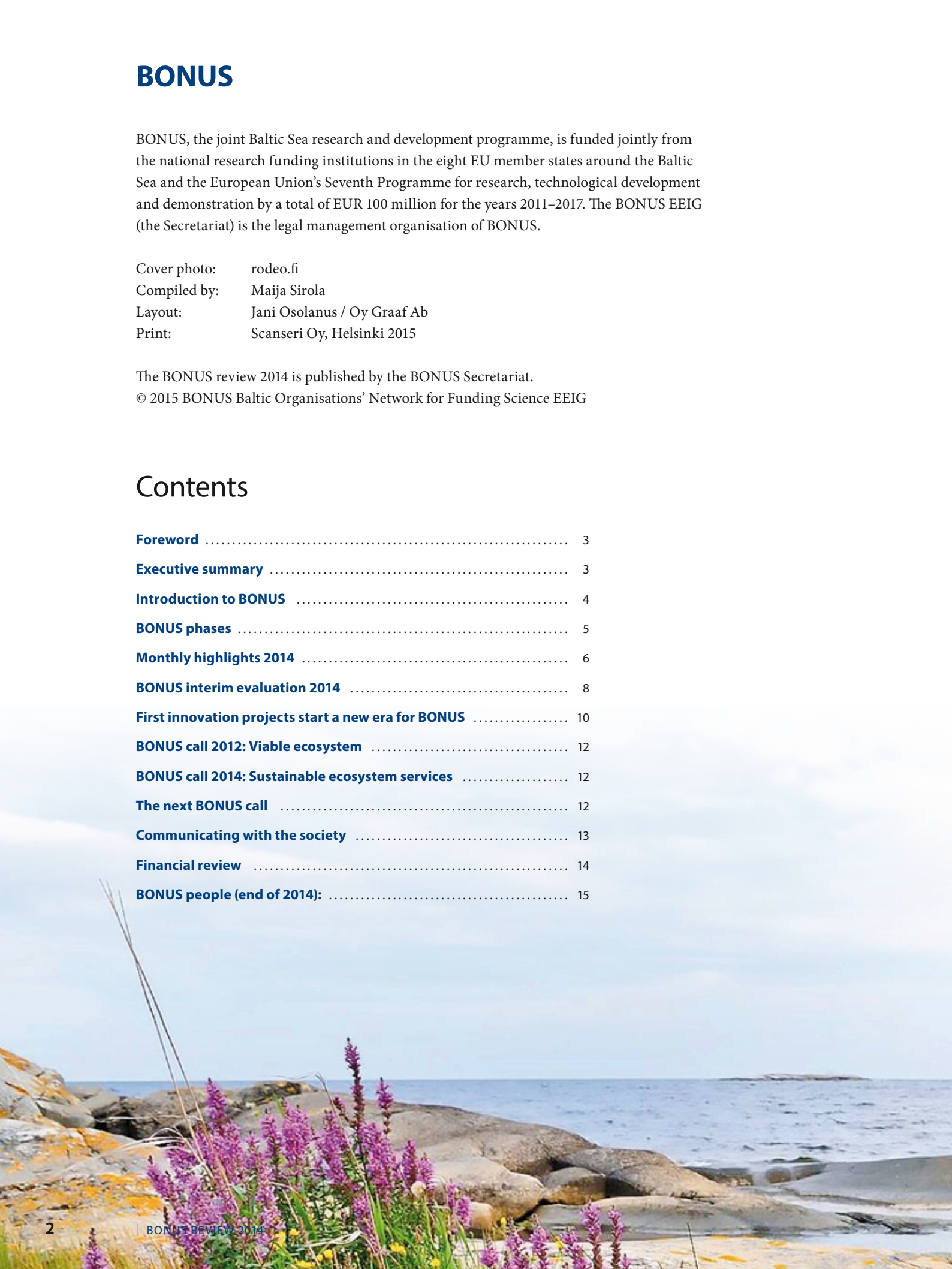
BONUS, the joint Baltic Sea research and development programme, is funded jointly from the national research funding institutions in the eight EU member states around the Baltic Sea and the European Union's Seventh Programme for research, technological development and demonstration by a total of EUR 100 million for the years 2011–2017. The BONUS EEIG (the Secretariat) is the legal management organisation of BONUS.

Cover photo: rodeo.fi  
Compiled by: Maija Sirola  
Layout: Jani Osolanus / Oy Graaf Ab  
Print: Scanseri Oy, Helsinki 2015

The BONUS review 2014 is published by the BONUS Secretariat.  
© 2015 BONUS Baltic Organisations' Network for Funding Science EEIG

## Contents

<b>Foreword</b> .....	3
<b>Executive summary</b> .....	3
<b>Introduction to BONUS</b> .....	4
<b>BONUS phases</b> .....	5
<b>Monthly highlights 2014</b> .....	6
<b>BONUS interim evaluation 2014</b> .....	8
<b>First innovation projects start a new era for BONUS</b> .....	10
<b>BONUS call 2012: Viable ecosystem</b> .....	12
<b>BONUS call 2014: Sustainable ecosystem services</b> .....	12
<b>The next BONUS call</b> .....	12
<b>Communicating with the society</b> .....	13
<b>Financial review</b> .....	14
<b>BONUS people (end of 2014):</b> .....	15



# Foreword

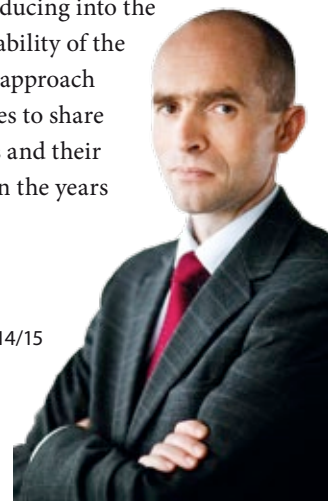
■ BONUS is now in its full operation – in 2014 seven viable ecosystem research and 13 innovation projects from the BONUS call 2012 started their busy first year of research and development, and eight more projects from the BONUS call 2014: Sustainable ecosystem services joined the pack just about a year later, at the time of publishing this review. Also more call(s) are planned for late 2015.

Today, we can proudly say that BONUS is not only a set of projects of a short-term effort destined to fade away in a few years' time. Instead BONUS has become a true actor in the landscape of policy networks within the Baltic Sea region and wider. It is sitting around the same table with high level intergovernmental regional policy organisations such as HELCOM, VASAB, and CBSS. It also acts collaboratively with key partners of the regional cross-sectoral events. Currently BONUS is preparing for its contributions to the high-profile Latvian Presidency of the EU Council events taking

place in June 2015, the Sixth Annual Forum of the EU Strategy Baltic Sea Region and the jubilee Baltic Sea Science Congress.

Furthermore, the interim assessment undertaken in 2014 has provided encouraging signals to the BONUS community about the right direction of the change that BONUS approach is introducing into the way how science should boost sustainability of the Baltic Sea region and the benefits this approach brings to the society. BONUS continues to share its experience with other regional seas and their macroregions in Europe and beyond in the years to come.

*Leszek Grabarczyk*  
Chair of the BONUS Steering Committee 2014/15  
Deputy Director of the National Centre  
for Research and Development, Poland  
In Warsaw, 31 March 2015



## Executive summary

■ On 3 January 2014, the 'BONUS strategic research agenda 2011-2017, update 2014' was published. This agenda has been developed and updated with considerable contributions by over 800 stakeholders to date, including key policymakers, scientific community, the national funding institutions and the European Commission services. In 2014, it reached yet another milestone in its continuous process of detecting most current research needs in the region and reflecting these in the agenda.

The strategic research agenda was put to immediate use when it served as the basis for opening the "BONUS call 2014: Sustainable ecosystem services" on 16 January 2014. Altogether 48 proposals were submitted for consideration which led to eight projects worth a total of EUR 17,3 million of BONUS funding being selected in the end. These projects have now started their implementation.

The BONUS interim assessment was initiated in mid-year by five independent experts commissioned

by the European Commission, and concluding into a very positive and encouraging signals of the success of the BONUS approach and to the BONUS continuation plans that are underway.

Throughout the year, BONUS continued its considered contributions to key cross-sectoral stakeholder events that worked towards ensuring programme's visibility and progress towards sustainable cross-border and cross-sectoral public research programme coordination and integration.

The completion of more intuitive, redesigned BONUS website ended the year together with the launch of a new website dedicated to BONUS projects. In the latter, the BONUS projects themselves are the managers of the content of this 'first-stop, at a glance' platform for end-users and other web visitors seeking information about different projects.

The following pages provide key achievements of BONUS with a focus on the second full year of activity from 1 January until 31 December 2014.



## Introduction to BONUS

■ *Despite the environmental protection efforts of the past several decades, the Baltic Sea region is yet to find efficient solutions to sustain a healthy Baltic Sea ecosystem. The challenges cannot be tackled effectively by individual countries acting alone. Nor can they be addressed without a thorough understanding of the relevant facts and processes. The states bordering the Baltic Sea are cooperating in BONUS to provide policymakers and industries with the information they need to achieve greater sustainability. To this end, BONUS issues calls for competitive proposals and funds projects of high excellence and relevance based on its strategic research agenda – which in turn is developed and updated as a living document with the policy-makers and other end-users across the region.*

Since its inception in 2007, BONUS has built a unique, macroregional collaboration of research and innovation funding institutions that supports sustain-

able development of the Baltic Sea ecosystem services through research and innovation. BONUS is considered an EU-wide pioneer in creating a macroregional governance network for research and innovation and a forerunner in testing many of the principles now implemented in Horizon 2020.

BONUS contributes significantly to the increase of scientific excellence, level of interdisciplinarity and joint use of research infrastructures. Due to its much targeted focus, BONUS also contributes directly to the improvement of the Baltic Sea environment, to policy development and to the sustainable development of the region.

BONUS is an important contributor of new scientific knowledge which is critical for successful implementation of the EU Strategy for the Baltic Sea Region, EU Marine Strategy Framework Directive in the Baltic Sea marine region, the EU Directive establishing

### **BONUS vision**

*Economically and ecologically prosperous Baltic Sea region where resources and goods are used sustainably and where the long-term management of the region is based on sound knowledge derived from multidisciplinary research*

### **BONUS objective**

*To integrate the Baltic Sea System research into a durable, cooperative, interdisciplinary and focused multinational programme in support of the region's sustainable development*

a framework for maritime spatial planning, and the HELCOM Baltic Sea Action Plan –this is evidenced by statistics of already implemented BONUS projects’ contributions to policy developments and the programme summary published in AMBIO early 2014.

BONUS has its origin within funding co-operation between basic science oriented funders. During its operation BONUS has, however, attracted innovation funders, broadened its funding base and included innovation component into its strategic research agenda. Thus BONUS has become a pioneering funding structure in support of blue growth and sustainable development of the Baltic Sea region.

BONUS has established broad stakeholder consultation platforms while developing its strategic research agenda. It collaborates closely and systematically with the most important regional conventions such as HELCOM, VASAB, CBSS and ICES.

In terms of the financial integration, BONUS has created a unique procedure of co-financing its actions through real money funding by the participating countries and the EU.

By establishing bilateral agreements with Russian funding institutions, this allowing participation of Russian scientists in BONUS projects, BONUS has created a bridge between and for the European and Russian scientific communities.

---

*“Overall, the Evaluation Panel is very impressed by BONUS’s achievements founded upon the development of transnational and trans-disciplinary cooperation, of human and institutional capacities, of information sharing and the trust in the integrity of all actors within the management of successive phases of the programme. The Evaluation Panel is confident that there will be further major advances in policies and management actions to enhance the sustainable use of the Baltic Sea ecosystem resulting from the outcomes of BONUS that would not have been achieved without this integrated approach.”*



The chair of the Independent BONUS Interim Evaluation Panel, Professor Peter R. Burbridge, 28 October 2014

---

*“If BONUS would not exist, it would have to be invented.”*



The Finnish Baltic Sea Ambassador Ms. Erja Tikka, responsible for Finland’s overall Baltic Sea policy and EUSBSR relations, BONUS Interim Evaluation report, 28 October 2014

## BONUS phases:

► **BONUS ERA-NET (2003–2008)** was a joint project by 12 research funding and coordinating agencies around the Baltic Sea set up to develop preconditions for a Joint Baltic Sea Research Programme (i.e. BONUS).

► **BONUS+ (2009–2011)** tested the mechanisms of collaboration among the national funding institutions. A total of 16 projects involving over 100 research institutes and universities were funded (EUR 22 million).

► **BONUS 2011–2017** was started by the BONUS member states together with the EU and launched officially in September 2010 by a co-decision of the European Parliament and the European Council. Between years 2012 and 2014 sought for are competitive, cross-disciplinary and transnational top research and innovation projects worth up to EUR 100 million.

► **BONUS 2018 and beyond:** plans are being developed to continue BONUS in the future and possibly broaden the programme to a ‘Northern European seas’ programme of two regional seas, namely the Baltic Sea and the North Sea.

# Monthly highlights 2014

## January

**1 January:** Research projects funded from the BONUS call 2012: Viable ecosystem start their implementation.

**3 January:** BONUS strategic research agenda 2011–2017, update 2014 gets published.

**16 January:** The BONUS call 2014: Sustainable ecosystem services opens for competitive proposals with EUR 15 million funding available.

## February

**15 February:** AMBIO Special Issue: BONUS+ in Support of the Ecosystem Approach to Management in the Baltic Sea (Vol.43 No.1, February 2014) outlines in a concrete way a synopsis of the results of the policy driven and multidisciplinary BONUS+ programme 2009–2011.

## March

**5 March:** A future oriented panel discussion marks the 40<sup>th</sup> anniversary of the signing of the 1974 Helsinki Convention. The regional actors of HELCOM, OSPAR, ICES, BONUS and the Department of International Cooperation, Ministry of Natural Resources and Environment of the Russian Federation together with the Environment Directorate-General of the European Commission dispatch a captivating interchange for the jubilee audience.

**6 March:** PE2020 Public Engagement Innovations for Horizon 2020 project selects BONUS public engagement activities amongst its pilots as it sets out to identify, analyse and refine innovative public engagement tools and instruments for dynamic governance in the field of 'science in society'.

**30 March:** Based on the work and results of the BONUS+ project HYPER, an international team of scientists reports on the low oxygen zone increase by a factor of 10 times over the last 115 years in the Baltic Sea, now covering more than 60,000 km<sup>2</sup> of sea bottom.

## April

**16 April:** A total of EUR 99,6 million gets requested by the proposals for future Baltic Sea research projects competing for the funding available for the BONUS call 2014: Sustainable ecosystem services. A total of 48 proposals and a total of 328 potential partners are listed amongst the potential consortia for funding.

## May

**19 May:** During the innovation and maritime technologies themed European Maritime Day 2014 in Bremen, BONUS in collaboration with its call partner BSR Stars, announces its first thirteen Baltic Sea innovation projects selected for funding that start their implementation in spring and summer 2014.

**20 May:** Forty European Maritime Day participants of the joint BONUS and City of Turku workshop titled 'Let's make it really blue – sustainability, capabilities and business opportunities in the Northern European seas' learn about the must, opportunity and challenge of the sustainability in the blue growth business.

## June

**3–4 June:** At the joint EU Strategy for the Baltic Sea Region and Baltic Development Forum in Turku, and with close to 80 participants in attendance, BONUS and CBSS Baltic-21 run a parallel work stream session titled 'Successful cooperation: research, development and innovation' to demonstrate successful cooperation using as a case the undercurrent and necessity of the sustainable development.

## July

**4 July:** The BONUS Steering Committee confirms the outcome of the independent evaluation of the BONUS call 2014: Sustainable ecosystem services and the negotiations for grant agreements begin with a view for projects to start in the first half of 2015.





## August

**26 August:** All BONUS projects starting their implementation in 2014 gather to Riga for a two day-meeting to learn more about each other and forge synergies between different projects.

## September

**26 September:** BONUS, as an active participant of the 8<sup>th</sup> VASAB conference of ministers responsible for spatial planning and development of the Baltic Sea region, addresses in its deliberations the critical importance of the maritime spatial planning from local to Baltic Sea region scale.

## October

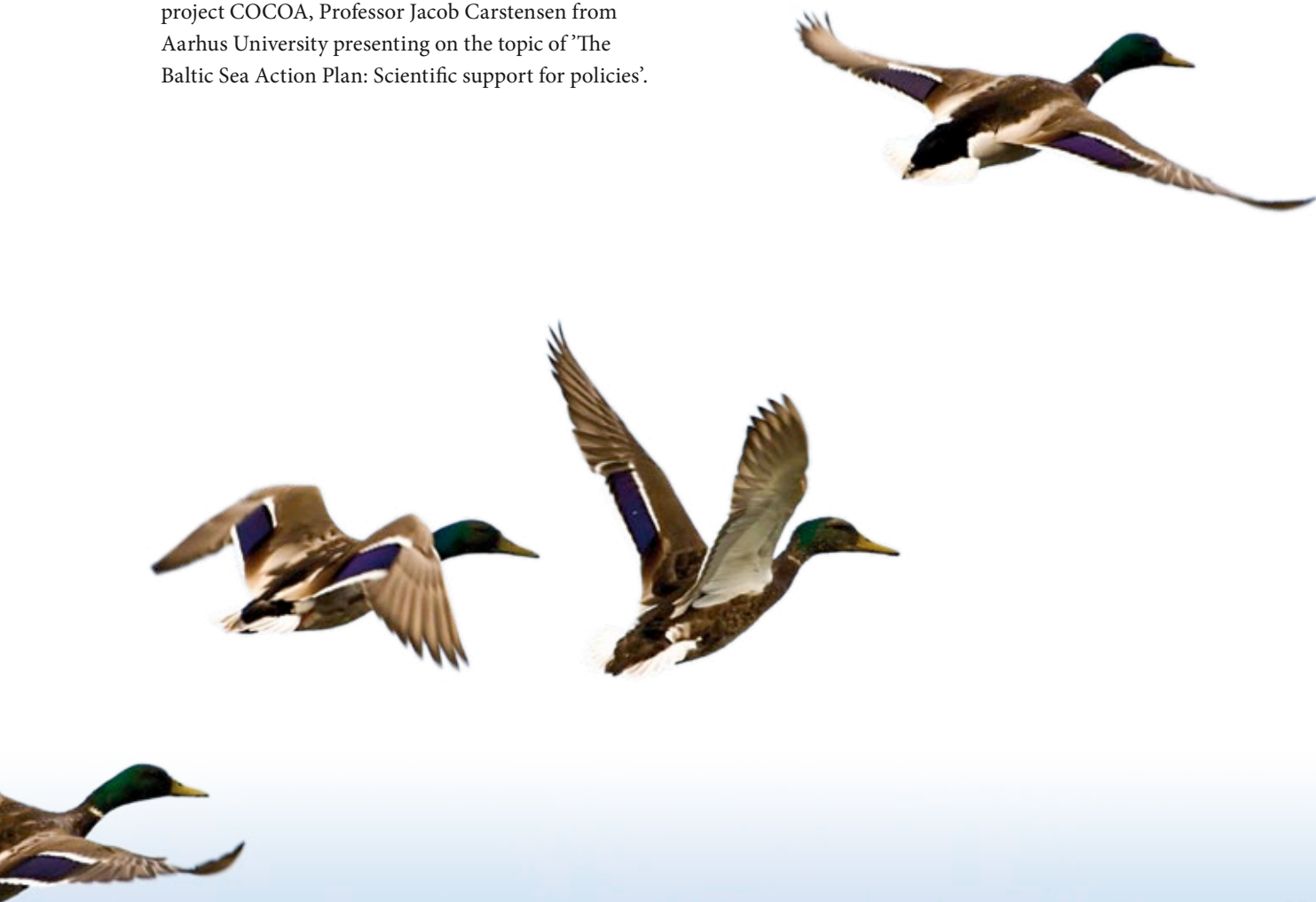
**7–9 October:** Executive Director of BONUS, Kaisa Kononen, chairs a session titled 'Regional Seas: to the north and west' during the EuroOCEAN 2014 conference in Rome with the coordinator of BONUS project COCOA, Professor Jacob Carstensen from Aarhus University presenting on the topic of 'The Baltic Sea Action Plan: Scientific support for policies'.

## November

**13 November:** A dedicated BONUS projects' website [www.bonusprojects.org](http://www.bonusprojects.org) managed by the projects themselves is launched to serve as a 'first stop and at a glance' platform where visitors can quickly get most recent news, blogs and event information directly from different, ongoing projects.

## December

**17 December:** The redesigned BONUS website [www.bonusportal.org](http://www.bonusportal.org) with more intuitive and user-friendly navigation is introduced online to continue to spearhead the portfolio of BONUS communications tools.



## BONUS interim evaluation 2014

■ An interim evaluation of BONUS was undertaken in 2014 by a panel of five independent experts appointed by the European Commission. It was carried out as a requirement of the September 2010 BONUS legislative Decision of the European Parliament and the Council. The evaluation considered BONUS's 1) relevance, 2) effectiveness, 3) efficiency, 4) EU added value and 5) coherence with other policies and programmes. Furthermore, to strengthen the potential outcomes of BONUS, the experts made nine recommendations that were adopted by the European Commission which considered these to be founded upon an appropriate analysis and sound methodology.

### Selected quotations from the interim evaluation:

*...it is clear to the Panel that the potential outputs and outcomes that can be achieved through the strategic approach developed under Article 185 of the Treaty of the Functioning of the EU will lead to significant advances in knowledge of importance and direct application to end-users.*

*...the support of the EU in the BONUS programme has helped to engage the effective participation of non-EU Member States that will help address the development challenges for the Baltic Sea as a whole.*

*...The transnational collaboration facilitated by BONUS has also supported enhancement of the research capacity of smaller, less research intensive Baltic Sea states and enabled them to make very positive and valuable contributions to ensure the knowledge necessary to address the challenges facing the Baltic Sea.*

*...the robust strategic framework of BONUS and the collaboration achieved between Member States is a valuable model that could be applied to other European sea areas.*

### Full document available at:

<http://ec.europa.eu/smart-regulation/evaluation/search/download.do?documentId=12453881>





■ **The Commission's conclusions following the interim evaluation are described within the Report from the Commission to the European Parliament and the Council: "Interim Evaluation of the Joint Baltic Sea Research and Development Programme BONUS" adopted on 30 January 2015 (COM (2015) 34).**

**Selected quotations from the Commission's conclusions on the interim evaluation of BONUS:**

*...The Commission considers that BONUS is progressively achieving its objectives and has successfully established an integrated Research and Development Programme to tackle the challenges facing the Baltic Sea. BONUS overcomes fragmentation of research programmes, brings together a variety of skills and focusses this effort on creating the essential knowledge and innovative solutions to overcome the Baltic Sea's environmental problems.*

*...BONUS's macro-regional approach to the Baltic and its catchments has enabled stronger impact than a broader programme directed towards the EU as a whole could have achieved.*

*...The establishment of closer links between BONUS and the Baltic Sea Region Programme further enhances the impact and is in line with the objectives of Horizon 2020, which also seeks to further enhance synergies between research and European Structural and Investment Funds.*

*...BONUS integrates research programming, supports establishment of a European Research Area and contributes to several key policies, notably: the EU Strategy for the Baltic Sea Region, the EU Marine Strategy Framework Directive, the EU Common Fisheries Policy and the HELCOM Baltic Sea Action Plan.*

**Full document available at:**

<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1422618055862&uri=COM:2015:34:FIN>



# First innovation projects start a new era for BONUS

■ The start of the BONUS innovation projects in spring and summer 2014 marked a historical moment for BONUS as these projects were the winners of the first competitive call for proposals focusing on innovation and not only on basic research. This means that the scientific knowledge is being applied to a real world application and typically tested in a live environment using a prototype or pilot installation. As intended, the introduction of the innovation track into the BONUS project portfolio brought number of enterprises to take part in the projects. Typically an industrial partner brings into the consortium competence from the application domain and an insight from the markets and

customers' needs whereas the participating research organisations ensure the leading edge scientific level of the project.

Three themes from the BONUS strategic research agenda were covered in the call as the key themes: eco-technological approaches, in-situ remote sensing and laboratory techniques, and information and communication technology for environment, safety and security. There are a total of 13 projects and 52 participants from all BONUS member states and one participant from France. The total share of BONUS funding volume is close to EUR 6 million.

## AFISMON

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

- Share of the BONUS funding: EUR 499 570
- Duration: 3 years, 1.4.2014–31.3.2017

Project partners:

### Germany

- Leibniz Institute for Baltic Sea Research Warnemünde, Rostock (coordinating partner)
- HydroBios GmbH, Kiel

### Denmark

- University of Copenhagen, Helsingør

### Sweden

- Royal Institute of Technology, Stockholm



Project coordinator  
**Matthias Labrenz**

## ANCHOR

► The captain assistant system for navigation and routing during operations in harbour

- Share of the BONUS funding: EUR 424 397
- Duration: 2 years, 1.4.2014–31.3.2016

Project partners:

### Poland

- Astri Polska sp. z o. o. company (coordinating partner)
- Akademia Marynarki Wojennej, Gdynia

### Germany

- Automotive & Rail Innovation Center, Aachen
- RWTH Aachen University

### France

- University of Montpellier 2, Nimes



Project coordinator  
**Karol Brzostowski**

## FERRYSCOPE

► Bridging the divide between satellite and shipborne sensing for Baltic Sea water quality assessment

- Share of the BONUS funding: EUR 499 959
- Duration: 2 years, 1.7.2014–30.6.2016

Project partners:

### Germany

- Brockmann Consult GmbH, Geesthacht (coordinating partner)

### Estonia

- Estonian Marine Institute of Tartu University, Tallinn

### Finland

- Finnish Environment Institute, Helsinki



Project coordinator  
**Martin Böttcher**

## ESABALT

► Enhanced situational awareness to improve maritime safety in the Baltic

- Share of the BONUS funding: EUR 374 573
- Duration: 2 years, 1.3.2014–28.2.2016

Project partners:

### Finland

- Finnish Geodetic Institute, (from 1.1.2015 Finnish Geospatial Research Institute), Kirkkonummi (coordinating partner)
- Furuno Finland Oy, Espoo

### Poland

- Maritime University of Szczecin

### Sweden

- SSPA, Gothenburg



Project coordinator  
**Heidi Kuusniemi**

## FISHVIEW

► Assessing fish passages by the use of a robotic fish sensor and enhanced digital imaging

- Share of the BONUS funding: EUR 448 723
- Duration: 3 years, 1.4.2014–31.3.2017

Project partners:

### Estonia

- Tallinn University of Technology (coordinating partner)

### Finland

- Tampere University of Technology

### Germany

- Ecohydraulic Engineering GmbH, Stuttgart



Project coordinator  
**Maarja Kruusmaa**



## GEOILWATCH

► Geopositional early warning system integration for disaster prevention in the Baltic Sea

- Share of the BONUS funding: EUR 476 958
- Duration: 2 years, 1.5.2014-30.4.2016

Project partners:

### Estonia

- *Institute of Marine Systems at Tallinn University of Technology (coordinating partner)*
- *Flydog Solutions LCC, Tallinn*

### Finland

- *Finnish Meteorological Institute, Helsinki*

### Latvia

- *Ventspils University College*
- *Latvian Coast Guard Service*

### Sweden

- *Swedish Meteorological and Hydrological Institute, Norrköping*



Project coordinator  
**Heidi Pihlak**

## HARDCORE

► Harnessing coastal radars for environmental monitoring purposes

- Share of the BONUS funding: EUR 298 148
- Duration: 3 years, 1.6.2014-31.5.2017

Project partners:

### Finland

- *Finnish Meteorological Institute, Helsinki (coordinating partner)*
- *Image Soft Oy, Helsinki*
- *Finnish Transport Agency, Helsinki*

### Estonia

- *Marine Systems Institute at Tallinn University of Technology*

### Poland

- *Institute of Meteorology and Water Management – National Research Institute, Warsaw*



Project coordinator  
**Mikko Lensu**

## MICROALGAE

► Cost efficient algal cultivation system – a source of emission control and industrial development

- Share of the BONUS funding: EUR 474 906
- Duration: 3 years, 1.2.2014-31.1.2017

Project partners:

### Estonia

- *Tallinn University of Technology (coordinating partner)*

### Denmark

- *Technical University of Denmark, Kgs. Lyngby*

### Sweden

- *SocEco Analysis & Education, Helsingborg*



Project coordinator  
**Arvo Iital**

## OPTITREAT

► Optimisation of small wastewater treatment facilities

- Share of the BONUS funding: EUR 497 064
- Duration: 3 years, 1.2.2014-31.1.2017

Project partners:

### Sweden

- *IVL Swedish Environmental Research Institute, Stockholm (coordinating partner)*

### Germany

- *Development and Assessment Institute in Waste Water Technology, RWTH Aachen University*

### Poland

- *The Institute for Ecology of Industrial Areas, Katowice*



Project coordinator  
**Heléne Ejhed**

## PINBAL

► Development of a spectrophotometric pH-measurement system for monitoring in the Baltic Sea

- Share of the BONUS funding: EUR 482 680
- Duration: 3 years, 1.4.2014-31.3.2017

Project partners:

### Germany

- *Leibniz Institute for Baltic Sea Research Warnemünde, Rostock (coordinating partner)*
- *CONTROS Systems & Solutions GmbH, Kiel*

### Poland

- *Institute of Oceanology of the Polish Academy of Sciences, Sopot*

### Sweden

- *University of Gothenburg*



Project coordinator  
**Gregor Rehder**

## PROMISE

► Phosphorus recycling of mixed substances

- Share of the BONUS funding: EUR 464 968
- Duration: 3 years, 1.4.2014-31.3.2017

Project partners:

### Finland

- *Natural Resources Institute Finland, Jokioinen (coordinating partner)*

### Germany

- *Julius Kühn-Institut, Quedlinburg*
- *Outotec GmbH, Oberursel*

### Sweden

- *National Veterinary Institute, Uppsala*



Project coordinator  
**Eila Turtola**

## SWERA

► Sunken wreck environmental risk assessment

- Share of the BONUS funding: EUR 370 100
- Duration: 2 years, 1.5.2014-30.4.2016

Project partners:

### Finland

- *Finnish Environment Institute, Helsinki (coordinating partner)*
- *Alfons Håkans Ltd, Turku*

### Estonia

- *Marine Systems Institute at Tallinn University of Technology*

### Sweden

- *Chalmers University of Technology, Gothenburg*



Project coordinator  
**Jorma Rytönen**

## ZEB

► Zero emissions in the Baltic Sea

- Share of the BONUS funding: EUR 500 000
- Duration: 3 years, 1.6.2014-31.5.2017

Project partners:

### Sweden

- *IVL Swedish Environmental Research Institute, Stockholm (coordinating partner)*
- *Wärtsilä AB, Gothenburg*

### Finland

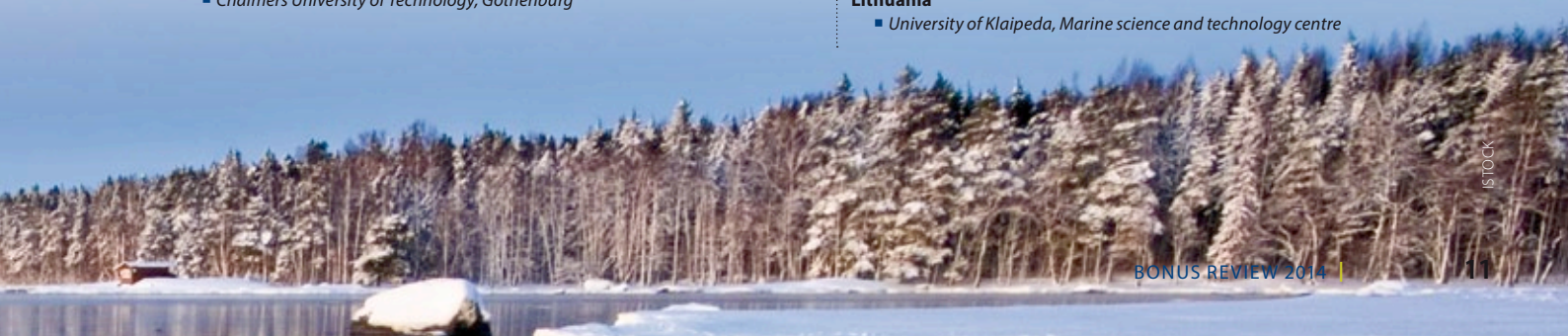
- *Wärtsilä Oy, Helsinki*

### Lithuania

- *University of Klaipeda, Marine science and technology centre*



Project coordinator  
**Fredrik Norén**



## BONUS call 2012: Viable ecosystem

■ The competition for funding was extremely tough when seven viable ecosystem research projects worth ca. EUR 26 million were selected amongst the 87 proposals submitted in 2013. The projects coordinated by Danish (BLUEPRINT, COCOA, SOILS2SEA), Swedish (BAMBI, CHANGE), Estonian (INSPIRE) and German

(BIO-C3) institutions started their implementation in early 2014 with a view to finish in four years' time. See BONUS review 2012–13, BONUS in Brief December 2013 as well as the BONUS programme and BONUS projects' websites for further information.

## BONUS call 2014: Sustainable ecosystem services

■ National funding negotiations of the BONUS call 2014: Sustainable ecosystem services were completed to large extent by the end of 2014, and consequently the national funding decisions finalised. Projects BALTCOAST, BALTICAPP, BALTSPACE, GO4BALTIC, GOHERR, MIRACLE, SHEBA and STORMWINDS

were selected for funding of a total worth EUR 17,3 million and started their implementation from April 2015 onwards. Further information available on the website [www.bonusprojects.org](http://www.bonusprojects.org) and the BONUS in Brief May 2015 issue.

## The next BONUS call

■ The themes as identified in the table below of the BONUS strategic research agenda have been covered to date by the 28 BONUS projects. The call opening in the last quarter of 2015 will include both research and innovation themes and it will aim to ensure a complete

coverage of all the themes of the agenda. Further detail will become available of the call closer to date on the BONUS website [www.bonusportal.org](http://www.bonusportal.org) and through the distribution of the BONUS e-bulletin [www.bonusportal.org/bulletin](http://www.bonusportal.org/bulletin).

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, FERRYSOPE, FISHVIEW, HARDCORE, PINBAL
5.3 User-driven ICT services	ANCHOR, ESABALT, GEOILWATCH



## Communicating with the society

■ The BONUS stakeholder activities are positioned in the core of the BONUS communications and dissemination action and form an integral part of the BONUS programme delivery. Key stakeholder events in the science-policy interface in 2014 included the HELCOM 40<sup>th</sup> Jubilee celebrations, the European Maritime Day, the fifth EU Strategy for the Baltic Sea Region Annual Forum organised jointly with the annual Baltic Development Forum, the VASAB ministerial meeting and the EurOCEAN Conference. Altogether In 2014, the BONUS Secretariat attended, spoke, observed and/or participated in over 30 conferences, advisory board meetings, seminars and other international events with relevance to BONUS.

► For highlights see [www.bonusportal.org/events](http://www.bonusportal.org/events)

The BONUS website continued to spearhead the BONUS communications tools. In 2014, a slight increase from previous year brought a total of 39 000 visits and over 22 000 unique visitors to the website.

► *The BONUS website is the leading communications tool of BONUS featuring dedicated areas for the programme, projects, news, events, publications and stakeholders.* [www.bonusportal.org](http://www.bonusportal.org)

Over 700 copies of the BONUS guest-edited, open access, special issue of AMBIO journal Vol.43 No.1, titled BONUS+ in Support of the Ecosystem Approach to Management in the Baltic Sea published by Springer Publishing House has been viewed and/or downloaded, distributed in events and/or via post to date.

► <http://link.springer.com/journal/13280/43/1/page/1>

A total of over 1000 copies of the two issues of the BONUS newsletter were published (in May and November) and distributed via post and BONUS exhibitions organised in a number of events.

► *BONUS in Brief is published to keep the BONUS community, including partners and supporters, informed about current views and news about BONUS activities and accomplishments.* [www.bonusportal.org/inbrief](http://www.bonusportal.org/inbrief)

The BONUS e-bulletin alerts went out 15 times to nearly 3000 subscribers in 2014 with roughly a quarter of recipients being regular followers of the BONUS news and updates.

► *The BONUS e-bulletin provides latest news and events several times per month by email to subscribers* [www.bonusportal.org/bulletin](http://www.bonusportal.org/bulletin)

New website updated directly by the ongoing BONUS projects keeps end-users and BONUS projects' community up to speed with the multidisciplinary and transnational projects, their developments and accomplishments in support of the sustainable development and protection action of the Baltic Sea.

► *Whether it is to learn more about the projects, their activities and results, or read some of the ever increasing posts by the young scientist and other bloggers, visit* [www.bonusprojects.org](http://www.bonusprojects.org)

In its search for the most innovative public engagement initiatives in Europe and beyond, the PE2020 Public Engagement Innovations for Horizon 2020 project consortium chose BONUS activities as one of its focus for case studies. The BONUS national advocates' network created during the strategic phase in 2010-2011, the BONUS strategic research agenda consultation process and 'impact' in funding criteria for BONUS projects were recorded for publishing in a catalogue of innovative tools and instruments in Europe later in 2015. Also, the new BONUS projects' website was chosen as a real-time case-study.

► <http://pe2020.eu/>

In May 2014, BONUS was selected to run a session for the Finnish Foreign Ministry's hosted Baltic Sea journalists' week in Finland. This together with BONUS and Academy of Finland hosted journalists' morning coffee sessions, over 60 news items posted on the BONUS website and social media, media events held, releases and advisories issued, coverage in various media was generated around the Baltic Sea over the year.

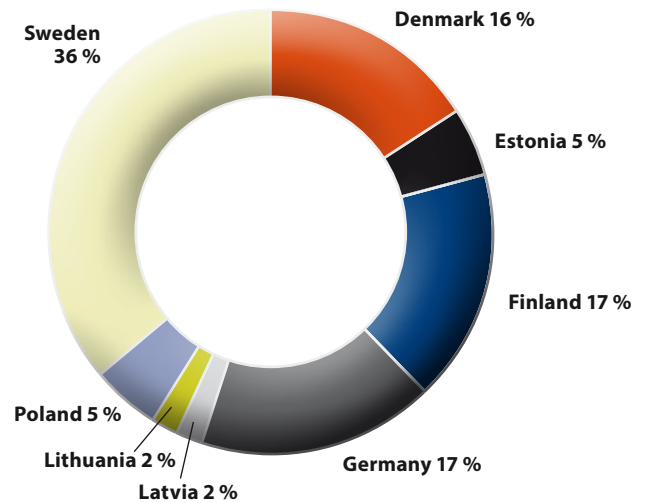
► [www.bonusportal.org/news](http://www.bonusportal.org/news) and [www.bonusportal.org/publications](http://www.bonusportal.org/publications)



## Financial review

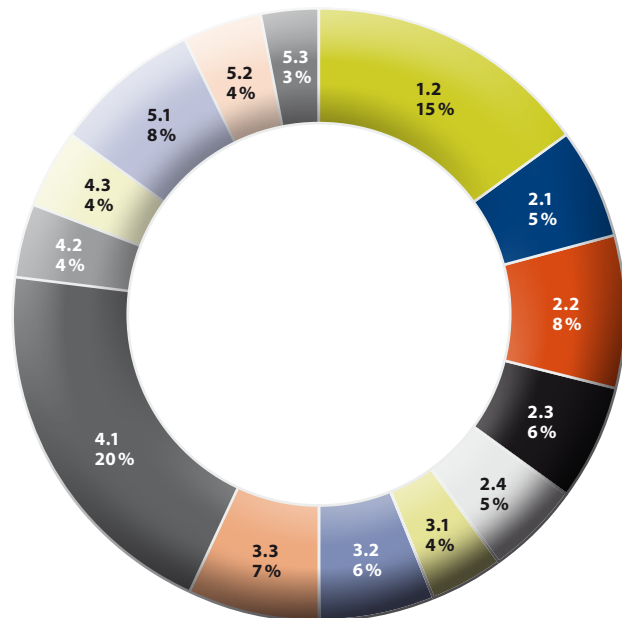
■ The funding for the projects of the BONUS calls 2012 and 2014 constitute now just over 50 % of the total funding of EUR 100 million reserved for implementing the BONUS programme. During the negotiations in 2014 progress was made concerning management and financial integration with all co-financing agreements now ensuring application of common rules for EU and national funding. From the total contribution reserved for the running costs of BONUS programme, close to 40 % was consumed by the end of 2014. During 2014, BONUS succeeded in mobilising additional financial resources from the participating states worth of EUR 1,35 million. Specific attention was paid on concluding agreements with the providers of free of charge research infrastructures. By the end of the year agreements worth of EUR 4,7 million had been concluded.

**Bonus call 2012 and call 2014:  
Funding project partners by countries**



**Bonus call 2012 and call 2014:  
Funding by research themes**

- 1.2 Changing biodiversity
- 2.1 Changes in catchment land cover patterns
- 2.2 The role of the coastal systems
- 2.3 Integrated coastal management
- 2.4 Eco-technological approaches
- 3.1 Maritime risk analysis and management
- 3.2 Effects of air and water pollution by shipping
- 3.3 Improving stock assessments, spatial heterogeneity of stocks
- 4.1 Governance structures, performance and policy instruments
- 4.2 Linking ecosystem goods and services to human lifestyles and well-being
- 4.3 Maritime spatial planning
- 5.1 Integrated monitoring programmes
- 5.2 Innovative measurement techniques
- 5.3 User-driven ICT services





# BONUS people (end of 2014):

## Funders of the BONUS call 2014: Sustainable ecosystem services

- Innovation Fund Denmark
- Estonian Research Council
- Academy of Finland
- Forschungszentrum Jülich Beteiligungsgesellschaft mbH (Germany)
- State Education Development Agency (Latvia)
- Research Council of Lithuania
- National Centre for Research and Development (Poland)
- Swedish Environmental Protection Agency
- Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, FORMAS

## Funders of the BONUS call 2012: Innovation

- Danish Agency for Science, Technology and Innovation (from 20.1.2015 Innovation Fund Denmark)
- Environmental Investment Centre (Estonia)
- Academy of Finland
- Finnish Transport Safety Agency, Trafi
- Ministry of Agriculture and Forestry (Finland)
- Ministry of Employment and the Economy (Finland)
- Forschungszentrum Jülich Beteiligungsgesellschaft mbH (Germany)
- Latvian Academy of Sciences (from 20.1.2015 State Education Development Agency (Latvia))
- Agency for Science, Innovation and Technology, MITA (Lithuania)
- National Centre for Research and Development (Poland)
- Swedish Agency for Marine and Water Management
- Swedish Civil Contingencies Agency
- Swedish Foundation for Strategic Environmental Research, MISTRA
- Swedish Governmental Agency for Innovation Systems, VINNOVA

## BONUS Project Coordinators Forum

AFISMON	<b>Matthias Labrenz</b>	Leibniz Institute for Baltic Sea Research Warnemünde, Germany
ANCHOR	<b>Karol Brzotowski</b>	Astri Polska Sp. z o. o., Poland
BAMBI	<b>Kerstin Johannesson</b>	University of Gothenburg, Sweden
BIO-C3	<b>Thorsten Reusch</b>	Helmholtz Centre for Ocean Research Kiel, Germany
BLUEPRINT	<b>Lasse Riemann</b>	University of Copenhagen, Denmark
CHANGE	<b>Mia Dahlström</b>	SP Technical Research Institute of Sweden, Sweden
COCOA	<b>Jacob Carstensen</b>	Aarhus University, Denmark
ESABALT	<b>Heidi Kuusniemi</b>	Finnish Geodetic Institute, (from 1.1.2015 Finnish Geospatial Research Institute), Finland
FERRYScope	<b>Martin Böttcher</b>	Brockmann Consult GmbH, Germany
FISHVIEW	<b>Maarja Kruusmaa</b>	Tallinn University of Technology, Estonia
GEOILWATCH	<b>Heidi Pihlak</b>	(until 8.12.2014 Siemon Smid) Tallinn University of Technology, Estonia
HARDORE	<b>Mikko Lensu</b>	Finnish Meteorological Institute, Finland
INSPIRE	<b>Henn Ojaveer</b>	Estonian Marine Institute of Tartu University, Estonia
MICROALGAE	<b>Arvo lital</b>	Tallinn University of Technology, Estonia
OPTITREAT	<b>Heléne Ejhed</b>	IVL Swedish Environmental Research Institute, Sweden
PINBAL	<b>Gregor Rehder</b>	Leibniz Institute for Baltic Sea Research Warnemünde, Germany
PROMISE	<b>Eila Turtola</b>	MTT Agrifood Research Finland, (from 1.1.2015 Natural Resources Institute Finland), Finland
SOILS2SEA	<b>Jens Christian Refsgaard</b>	Geological Survey of Denmark and Greenland, Denmark
SWERA	<b>Jorma Rytönen</b>	Finnish Environment Institute, Finland
ZEB	<b>Fredrik Norén</b>	IVL Swedish Environmental Research Institute, Sweden

## BONUS Members, Steering Committee representatives and the related national funding institutions

Denmark:	<b>Fritz Köster</b>	Danish Agency for Science, Technology and Innovation; Danish Council for Strategic Research, (from 20.1.2015 Innovation Fund Denmark)
Estonia:	<b>Maria Habicht</b>	Estonian Research Council
Finland:	<b>Laura Raaska</b>	FiRD Coop, Academy of Finland
Germany:	<b>Joachim Harms</b>	Forschungszentrum Jülich Beteiligungsgesellschaft mbH; Federal Ministry of Education and Research
Latvia:	<b>Maija Bundule</b>	Latvian Academy of Sciences, (from 20.1.2015 State Education Development Agency); Ministry of Education and Science of the Republic of Latvia
Lithuania:	<b>Eugenijus Butkus</b> <b>Aiste Vilkanauskyte</b>	(until 1.7.2014) (from 1.7.2014 onwards) Research Council of Lithuania; Ministry of Education and Science of the Republic of Lithuania
Poland:	<b>Leszek Grabarczyk</b>	National Centre for Research and Development; Ministry for Science and Higher Education
Sweden:	<b>Lisa Almesjö</b> <b>Mats Svensson</b>	Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, FORMAS Swedish Agency for Marine and Water Management; Swedish Environmental Protection Agency

## BONUS Advisory Board

<b>Kathrine Angell-Hansen</b>	JPI Oceans
<b>Donald Boesch</b>	University of Maryland
<b>Anne Christine Brusendorff</b>	International Council for the Exploration of the Seas ICES
<b>Siv Ericsdotter</b>	BalticSTERN Secretariat
<b>Ilkka Herlin</b>	Baltic Sea Action Group / Cargotec
<b>Rikard Korkman</b>	BalticDeal/Baltic Farmers Forum on Environment
<b>Talis Linkaits</b>	VASAB
<b>Irina Makarenko</b>	Black Sea Commission Permanent Secretariat
<b>Pauli Merriman</b>	World Wildlife Fund
<b>Karin Nygård-Skalman</b>	BSR Stars
<b>Markku Ollikainen</b>	University of Helsinki
<b>Eeva Rantama</b>	Baltic Sea Region Programme
<b>Marcus Reckermann</b>	International Baltic Earth Secretariat
<b>Imke Schneemann</b>	NORGENTA / SUBMARINER network
<b>Monika Stankiewicz</b>	HELCOM
<b>Fredric Wulff</b>	University of Stockholm

## BONUS Secretariat

<b>Kaisa Kononen</b>	Executive Director
<b>Andris Andrusaitis</b>	Programme Manager
<b>Pankaj Pant</b>	Trainee
<b>Markku Ranta</b>	Innovation Call Manager
<b>Meelis Sirendi</b>	Programme Officer
<b>Maija Sirola</b>	Communications Manager
<b>Tiina Tembe</b>	Assistant
<b>Minna Ulvila</b>	Financial Manager

BONUS is funded jointly from the national research funding institutions in the eight EU member states around the Baltic Sea and the European Union's Seventh Programme for research, technological development and demonstration. Russia participates in BONUS through bilateral agreements.



The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning



Hakaniemenranta 6  
00530 Helsinki  
Finland  
Tel. +358 40 040 4011  
Fax +358 9 4780 0044

Email [bonus@bonuseeig.fi](mailto:bonus@bonuseeig.fi)  
Web [www.bonusportal.org](http://www.bonusportal.org)  
[www.facebook.com/BONUSBaltic](http://www.facebook.com/BONUSBaltic)  
[www.twitter.com/BONUSBaltic](http://www.twitter.com/BONUSBaltic)