BONUS

Development from ERA-NET to no. Article 185
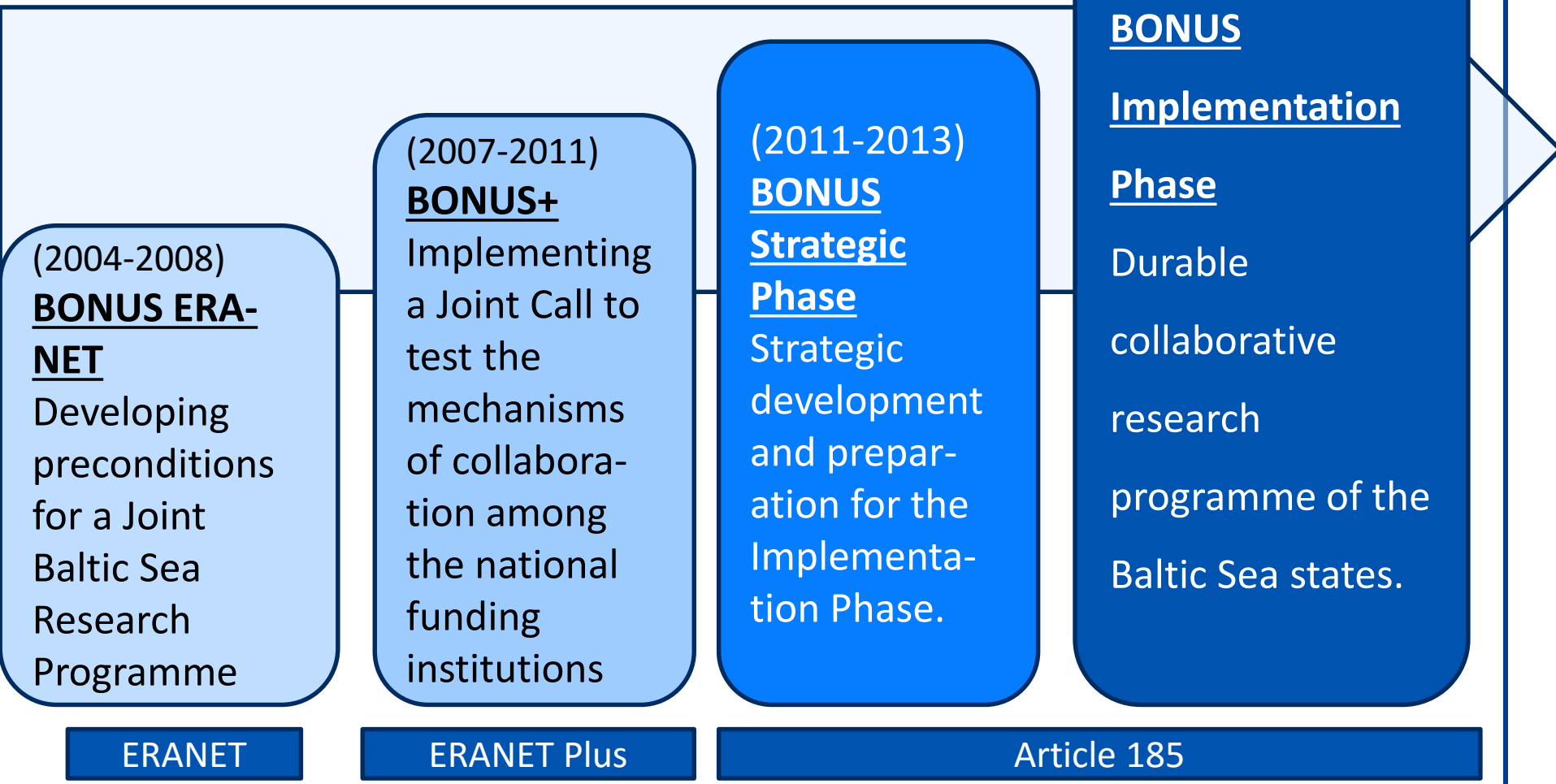
Kaisa Kononen

Executive Director

BONUS

3 December 2015

Development of BONUS

BONUS
SCIENCE FOR A BETTER FUTURE OF THE BALTIC SEA REGION

(2004-2008)
BONUS ERA-NET
Developing preconditions for a Joint Baltic Sea Research Programme

(2007-2011)
BONUS+
Implementing a Joint Call to test the mechanisms of collabora-tion among the national funding institutions

(2011-2013)
BONUS Strategic Phase
Strategic development and prepar-ation for the Implementa-tion Phase.

(2013 -2017 ->)
BONUS Implementation Phase
Durable collaborative research programme of the Baltic Sea states.

| ERANET | ERANET Plus | Article 185 |

- **Article 185 TFEU (ex Article 169 TEC) :**
  "In implementing the multiannual framework programme, the Union may make provision, in agreement with the Member States concerned, for participation in research and development programmes undertaken by several Member States, including participation in the structures created for the execution of those programmes."

  FP6:

- **EDCTP European and Developing Countries Clinical trials Partnership**=> Horizon 2020

  FP7 Cooperation:

- **AAL** - a joint research programme on 'Ambient Assisted Living'; => Horizon 2020

- **BONUS** - a joint research programme in the field of Baltic Sea research; successor in prepation

- **EMRP** - a joint research programme in the field of the science of measurement=> Horizon 2020

  FP7 Capacities:

- **Eurostars** - a joint research programme for research-performing SMEs and their partners=> Horizon 2020

BONUS Article 185

- Co-decision by the European Parliament and the Council in 2010
- Funding of EUR 100 million for the years 2011-2017
- EU funding 50 %, matching national funds
- 22 national funders involved
- Virtual common pot, common funding rules and rates

Participating states

- **Eight EU member states surrounding the Baltic Sea: Denmark, Estonia, Germany, Finland, Latvia, Lithuania, Poland, Sweden**
- **Russia participates through bilateral agreements**

The Baltic Sea Drainage Basin

Funded by the eight EU member states and the EU; EUR 100 million for 2011-17

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

MISSION

Integrating the Baltic Sea System research into a durable, cooperative, interdisciplinary and focused transnational programme in support of the region's sustainable development

Policy drivers

- **EU focus on sustainable development of the seas and sustainable use of natural resources**

- **EU Maritime Policy => Marine Strategy Framework Directive => HELCOM Baltic Sea Action Plan**

- **EU strategy for the Baltic Sea Region**

- **European Research Area**

- **other European regional and national coastal and marine environmental and sustainability policies and plans**
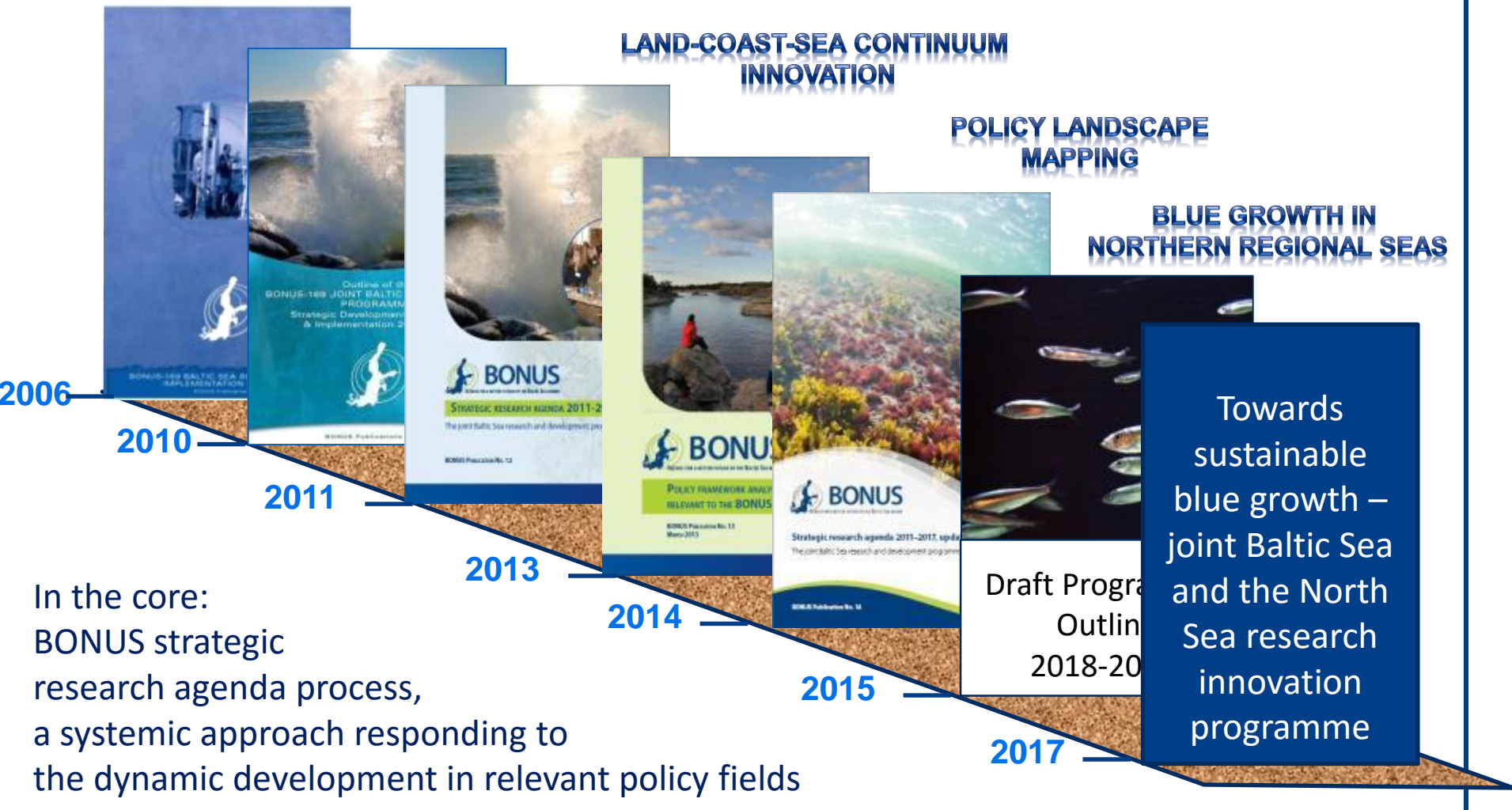
BONUS strategic research agenda process

FOCUS ON ECOSYSTEM

LAND-COAST-SEA CONTINUUM INNOVATION

POLICY LANDSCAPE MAPPING

BLUE GROWTH IN NORTHERN REGIONAL SEAS

2006

2010

2011

2013

2014

2015

2017

Draft Program Outline 2018-20

Towards sustainable blue growth – joint Baltic Sea and the North Sea research innovation programme

In the core:
BONUS strategic research agenda process, a systemic approach responding to the dynamic development in relevant policy fields

Structure of the current research agenda

Five strategic objectives:

19 themes:

Ecosystem	• Biogeochemical processes • Food webs	• Biodiversity • Hazardous substances

Coast and catchment area	• Catchment land cover • ICZM	• Coastal systems • Eco-innovation

Sustainable use of goods and services	• Maritime risks • Fish stock assessments • Fisheries management	• Pollution by shipping • Sustainable aqua culture

Societal responses	• Governance and policy • Lifestyles and well-being • Maritime spatial planning

Observation and data management	• Integrated monitoring programmes • Innovative measurement techniques • ICT services

BONUS calls

2007: Ecosystem approach to management

16 projects, 2009-2011, EUR 22 million

2012: Viable ecosystem and Innovation

20 projects funded for 2014-2017, EUR 33 million

2014: Sustainable ecosystem services
8 projects funded for 2015-2017, EUR 17 million

2015: Blue Baltic

Call launched on 9 November 2015, minimum of EUR 30 million, projects 2017-2020

BONUS projects' coverage of SRA

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

…develop ways to reduce loadings from the catchment…

- **SOILS2SEA determines ways to reduce nutrient loads from agriculture**

- **OPTITREAT optimises small wastewater treatment facilities**

- **PROMISE improves phosphorus recycling of mixed waste**

- **MICROALGAE develops emission controls by algal cultivation**

BONUS projects….

…boost sustainable fisheries…

- **INSPIRE** improves the knowledge basis for sustainable fisheries

- **GOHERR** looks for ways to bridge policy sectors in ecosystem based management of fisheries

- **FISHVIEW** improves migrations of fish in barraged rivers

…look for environmentally safer maritime activities…

- **CHANGE seeks to alter the antifouling practices of leisure boats**

- **STORMWINDS improves safety of winter navigation**

- **SHEBA looks for ways to reduce reduce pressures from shipping sensu MSFD**

- **SWERA reduces environmental risks from sunken wrecks**

- **ZEB finds ways to clean oily waters onboard ships**

- **ESABALT improves maritime safety by efficient situational data handling**

- **ANCHOR helps captains to operate their ships safely in harbours**

….develop methods and approaches to tradeoff between various sectors and interests….

- **GO4BALTIC** seeks coherence between national and international environmental and agricultural policies

- **BaltCoast** approaches coastal zone issues in a holistics way

- **BaltSpace** develops MSP as a policy integrator

- **BalticApp** clarifies sea's role for human wellbeing

- **MIRACLE** identifies *new configurations for governance* to reduce nutrient leaks and flood risks
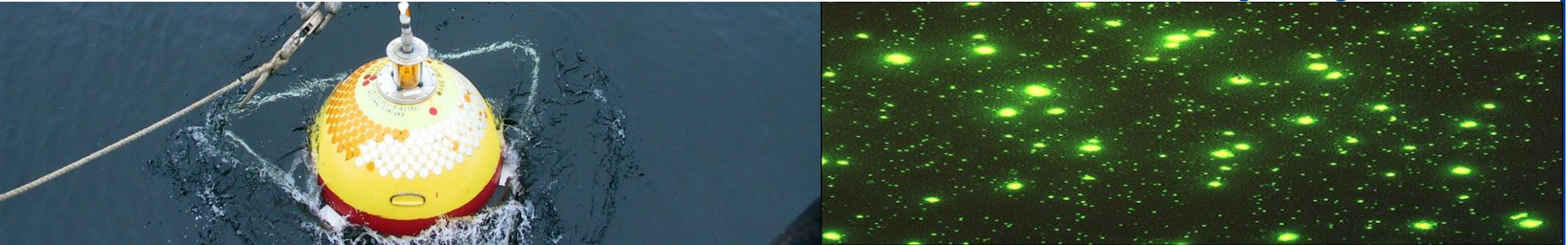
...develop new methods for monitoring, surveillance and assessment...

- **BAMBI** looks for new ways how to assess biodiversity
- **BLUEPRINT** develops novel gene-based monitoring methods
- **AFISMON** creates improved tools for new generation monitoring
- **HARDCORE** harnesses coastal radars for environmental monitoring
- **PINBAL** develops new ways for monitoring marine acidification
- **FERRYSCOPE** builds an integrated system of optical measurements from ferries and satellites.
- **GEOILWATCH** improves oil spill detection in sea water

…create new knowledge about marine ecosystems …

- **COCOA finds out how different nutrient forms change in the coastal sea**

- **BIO-C3 finds out how biodiversity functions and how it can be managed**

Support to policies

- **16 BONUS+ projects 2009-2011 under theme *Ecosystem approach to management***

- **Strong support to HELCOM's Baltic Sea Action Plan & MSFD**

- **Excellent research and active policy communications**
  - Contributions to 37 consultations
  - Members in 570 stakeholder and scientific committees
  - 49 modifications to policy documents and action plans
  - 153 suggestions for designing, implementing and evaluating the efficacy of public policies and governance

- **AMBIO Special issue 1/2014 summarises the outcome**

HELCOM's 40th Jubilee 14.3.2014
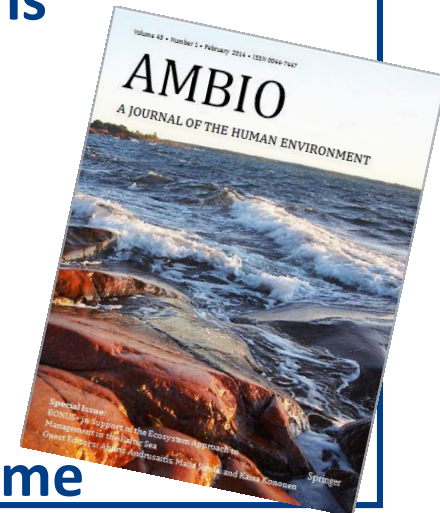
8th VASAB Ministerial Conference, 26.9.2014

Forum of EU Strategy for the
Baltic Sea Region &
Baltic Develploment Forum 3.6.2014

European Maritime Day 20.5.2014

BONUS young scientist activities in context

Ambition: *Creating networks of tomorrow's leading Baltic Sea scientists across disciplines in the early stages of their careers*

- **On project level – professional development:**
  - Young scientists' training courses, modifications to PhD programmes, work visits across projects

- **On programme level – transferrable skills and PE:**
  - Young scientists' training sessions, club evenings for networking, providing tools, means & incentives for practice & use, i.e. projects' website, PE awards…

BONUS young scientist activities

**Public engagement workshop
BSSC 2013, Klaipeda,
26 August 2013**

**How to be extremely
effective researcher
BSSC 2015,
Riga, 15 June 2015**

Summing up the BONUS approach :

- **Ecosystem approach – both marine and coastal aspects**

- **Interdisciplinarity – incl. natural sciences, socio-economics, technological innovation**

- **Transnationality – region-wide, cross-national approach**

- **Fit-for-purpose – demand for the research in the society**

- **Policy-driven – improvement and/or enhancement of the effectiveness of relevant policies**

- **Stakeholder and end-user focussed - integral part of the agenda, take up and use of the project results by end-users according to planned measures**

Estonia in BONUS calls

Three calls, EUR 49.2 million

Estonia:

national	1.1 milj
EU	1.5 milj
Total	2.6 milj

17/179 participants
4/28 coordinators
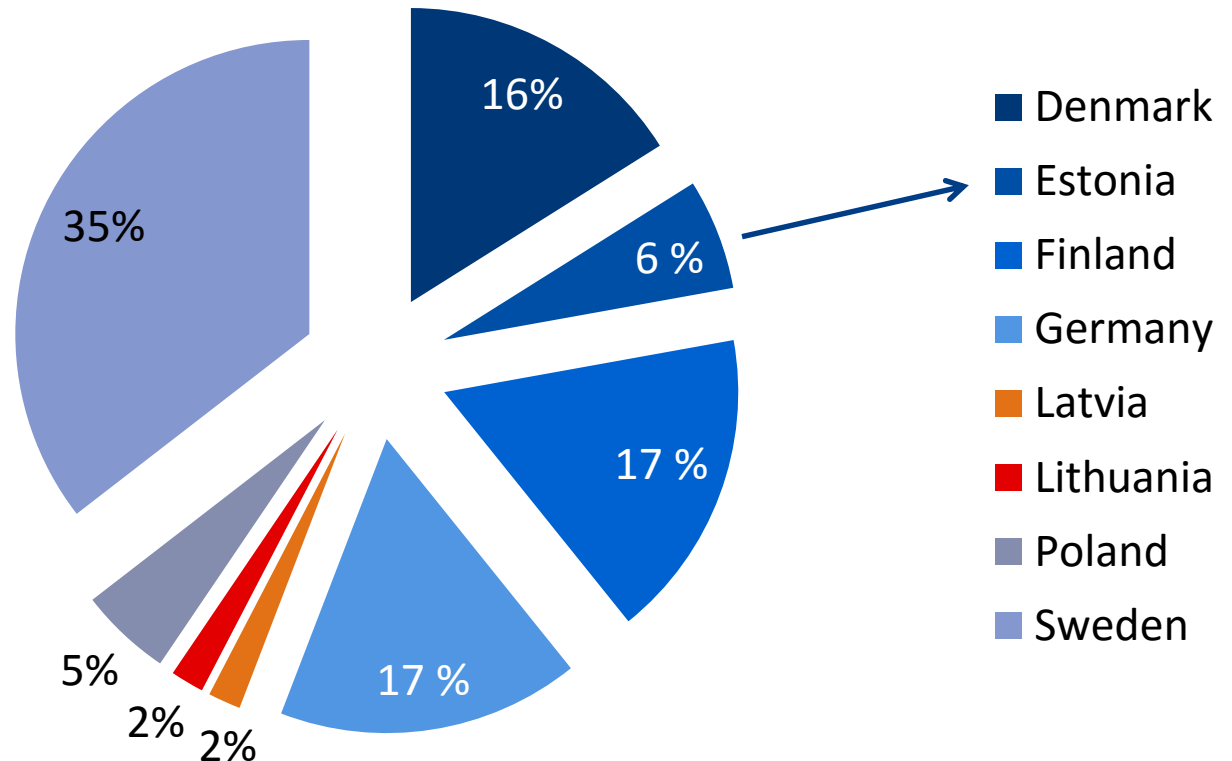
Legend:
- ■ Denmark
- ■ Estonia
- ■ Finland
- ■ Germany
- ■ Latvia
- ■ Lithuania
- ■ Poland
- ■ Sweden

Pie chart values: 16%, 6 %, 17 %, 17 %, 2%, 2%, 5%, 35%
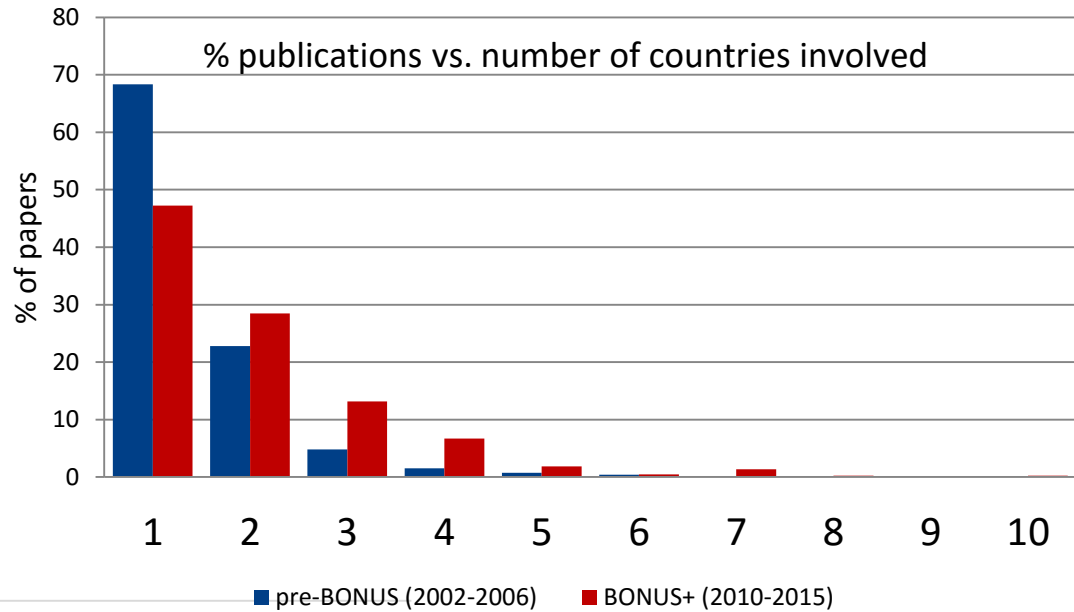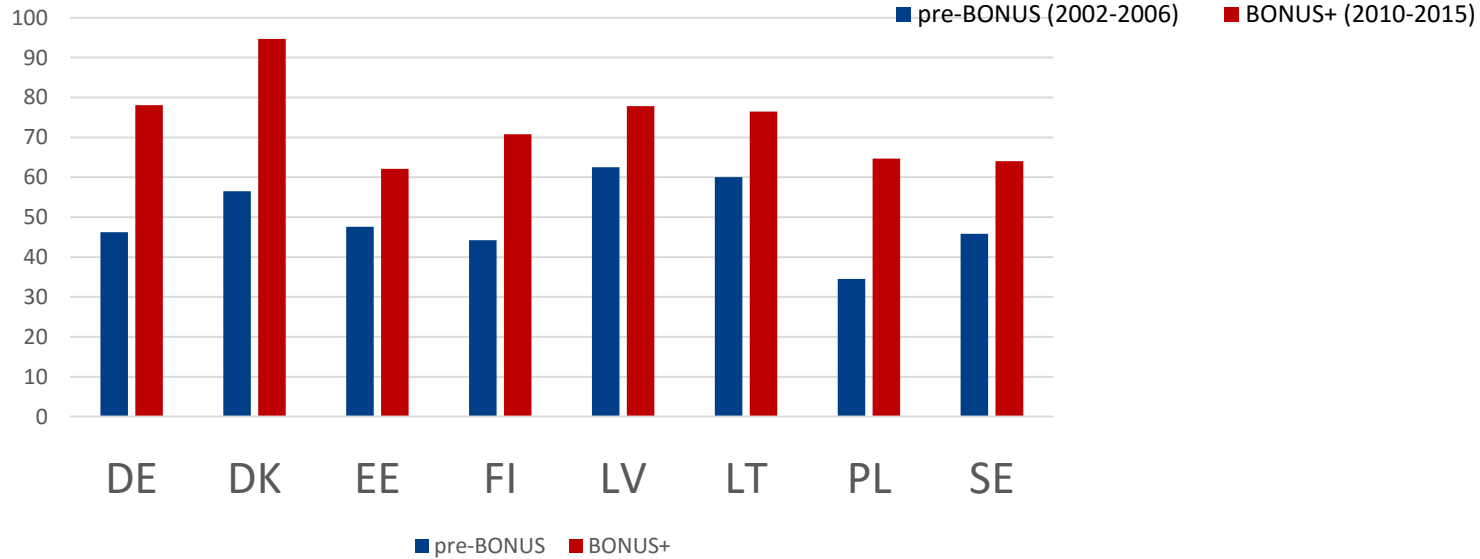
BONUS interim assessment

The report of the Independent BONUS Interim Evaluation Panel, 28 October 2014

*"…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.*

*…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."*

…..

*…could be considered **appropriate** for addressing similar challenges **in other European regional seas…***

BONUS interim assessment

REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL: Interim Evaluation of the Joint Baltic Sea Research and Development Programme BONUS, 30 January 2015

*"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**."…*

*"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."…*
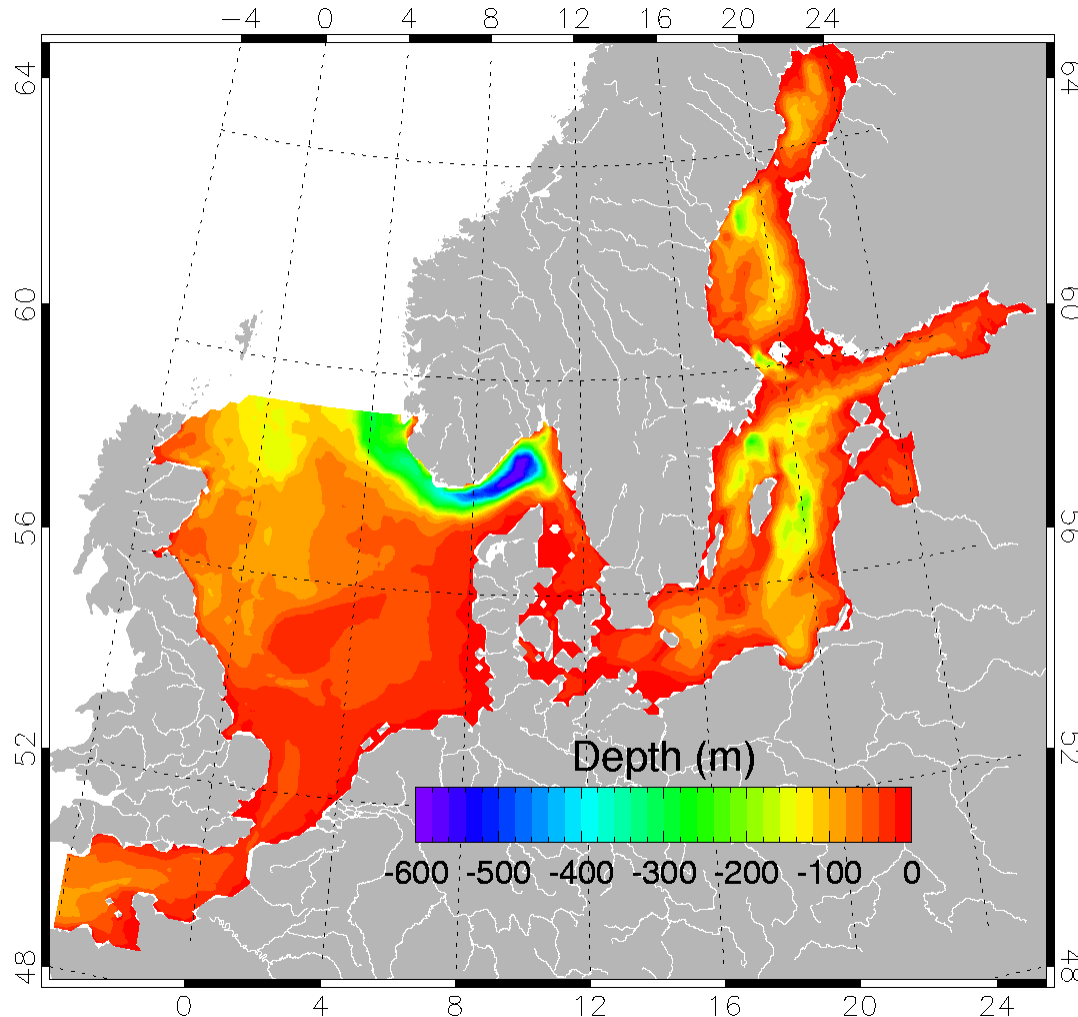
BONUS

future

TOWARDS SUSTAINABLE BLUE GROWTH

Joint Baltic Sea and the North Sea research and innovation programme

Expansion of the geographic scope

Estonia
Finland
Latvia
Lithuania
Poland
Russia (non EU)
Denmark
Germany
Sweden
Belgium
France
The Netherlands
United Kingdom
(negotiations ongoing)

Source: Danish Meteorological institute. http://ocean.dmi.dk/

BONUS 2 proposal was submitted by the Estonian minister of education and research on 11 November 2015

- Proposed total funding EUR 200 million,
  - EU contribution EUR 100 million
  - National contribution EUR 66.7 million cash, EUR 33.3 million in kind
- Operation 2018 - 2023
- 11 countries committed: Belgium (Flanders), Germany, Denmark, Estonia, Finland, *France*, Latvia, Lithuania, The Netherlands, Poland, Sweden.
- Negotiations ongoing with the United Kingdom
- Norway and Russian Federation invited to co-operate

THANK YOU!

Further information

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www.bonusportal.org