

Baltic Science Network.

Connecting Through Science

Joint Programming
in a Macro-Regional Setting



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Project in brief

Baltic Science Network (BSN) serves as a forum for higher education, science and research cooperation in the Baltic Sea Region (BSR).

BSN is a policy network gathering relevant transnational, national and regional policy actors from the BSR countries. The Network is a springboard for targeted multilateral activities in the frame of research and innovation excellence, mobility of scientists and expanded participation. These joint activities are modelled with an overall aim to ensure that the BSR remains a hub of cutting-edge scientific solutions with the capacity to exploit the region's full innovation and scientific potential. The activities are modelled as examples of best practice which form basis of the policy recommendations drafted by the Network.

The platform is tailored to provide advice on how to enhance a macro-regional dimension in higher education, science and research cooperation. Recommendations jointly formulated by the Network members address the European, national and regional policy-making levels.

BSN is a flagship of the EU Strategy for the Baltic Sea Region under the Policy Area Education, Research and Employability, as well as one of two cornerstones of the Science, Research and Innovation Agenda of the Council of the Baltic Sea States.

Disclaimer: This Working Paper is based on input from stakeholders and BSN partners and does not necessarily reflect the views of all participating Member States and organisations.



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List of Abbreviations

BSN	Baltic Science Network
BSR	Baltic Sea Region
ERA	European Research Area
EU	European Union
NCM	Nordic Council of Ministers
RI	research infrastructure
RÅC	Röntgen-Ångström Ccluster



1. Introduction

This Working Paper has been produced within the framework of the Baltic Science Network (Activity 3.3) and is focused on joint financial support to research. The aim of Activity 3.3 is to develop jointly incentives or funding schemes to foster transnational research and innovation uptake in the Baltic Sea Region (BSR) – Joint Programming.

Joint programming can be said to be an effort where two or more stakeholders come together to jointly make an effort through programming to solve issues of common and special interest through support to research. It should be mentioned that researchers often themselves collaborate in order to solve issues of common interests. It is also known that publications from collaborative research often are more highly cited. This is understood as a sign that collaboration often fosters high quality research. One reason for moving from researcher initiated collaboration to joint programming, that has been put forward by the European Union (EU), is that the urgency of understanding and finding solutions to the grand challenges we are facing need a more focused approach. Any joint programming will of course need to be based on good arguments and articulation of the benefits compared to letting the researchers themselves initiate collaboration. Any programming effort will also be a change driver and it is important to understand both positive and negative effects of programming on the research systems.

From the EU perspective joint programming played a special role as a change driver in the realization of the European Research Area (ERA). There has been a number of Joint Programming Initiatives started at the EU level. As a macro-region within the EU the BSR is an interesting region to test other forms of joint programming and collaborative efforts that could build on a mix of national, macro-regional and EU possibilities. This paper therefore explores experiences from the BSR on joint programming and collaborative efforts in a broad sense.

2. Joint Programming initiatives at the EU level

The Joint Programming Process intended to be one of the building blocks of the ERA when launched in 2008. The logic was that it should result in a systematic way of programming research policy between Member States. This should start with a joint definition of common societal challenges, mobilization of the necessary resources to adequately tackle the challenges and leading to a clear division of work between the national, transnational and EU-level. Even if ERA was a strong driver there was also (and still is) a sense of urgency to understand and find solutions to the challenges. During 2015 an evaluation of the process started. In the report published in 2016 "Evaluation of Joint Programming to Address Grand Societal Challenges: Final Report of the Expert Group"¹ there is also a good description of

¹ Directorate-General for Research and Innovation (2016) Evaluation of joint programming to address grand societal challenges Final report of the expert group – Study:



the background as well as a historical account of the development of joint programming. A number of points made in this report are also important for the macro-regional settings.

“At the end of 2015, almost €265m had been committed to transnational projects as a result of 32 Joint Calls involving 37 countries. However, nearly two-thirds of this investment is from just seven countries (Germany, Sweden, Netherlands, France, UK, Italy and Norway).” (p. 7)

“Consultations with JPI Chairs revealed four main concerns including; the commitment of member countries, the role of the Commission, the strong need to involve end users and the sustainability of their action. They believe that their SRA/SRIAs are having some influence on the alignment of research and policy, mobilization of more interdisciplinary research, demonstrating world leadership and joint capacity building. They also feel that the main risks for them are the lack of long-term commitment from their members, not being able to share infrastructure and funding constraints.” (p. 7)

“For the national stakeholders, it is clear that the level of commitment, participation and willingness to establish complementary structures is quite variable across the EU Member States and associated countries. The analysis suggests that participating countries could be grouped into three main categories: leaders, selective players and marginal players. The feedback on strategic alignment, based on adaptation of national research policy and systems, was also quite disappointing. Most countries appear to be ‘satisfied’ with the JPIs but a significant minority (30%) indicate that they are ‘unsatisfied’. The main barrier that limits participation is, of course, financial but there are also structural barriers related to a lack of emphasis on challenge-based, or even thematic, research in many countries as well as the more obvious variable geometry of the national research systems. Access to knowledge and international capacity building counted as positive effects and an important benefit but many are concerned about the lack of industrial players and societal challenge owners in the joint actions so far. Most of the participating countries expect to maintain, or moderately increase, their current level of participation. Many countries would like to see a stronger involvement of the Commission and believe that this would also help to increase political attention.” (p. 7)

Although some of the issues raised directly related to the possibility to address grand societal challenges some are of more general interest and could be important for building joint programming in a macro-regional setting as well. This includes the asymmetry between national stakeholders, programming sustainability and the role of the Commission.



3. Experiences from the Baltic Sea Region

The flagship of BSR collaboration is the BONUS programme that has been around since the early 2000s. There are, however, also many other examples at different levels and we have listed a number below that we have looked a little bit deeper into. A special case is the Nordic collaboration that builds on more than 50 years of collaboration through the Nordic Council of Ministers (NCM). Today the NCM has an organisation, NordForsk, that is devoted to joint programming between the Nordic countries. Even if there has been some collaboration between NordForsk and some of the Baltic Sea States there is no comparable structure to NordForsk available in the BSR.

Research funding

- Based on bi- or multilateral agreements – Röntgen-Ångström Cluster (RÅC), a bilateral Swedish and German programme
- Based on regional cooperation – programmes at NordForsk
- Based on EU-funding – Bonus and JPIAMR (Joint Programming Initiative on Antimicrobial Resistance)

Supportive funding

- Hamburg seed money schemes
- Support to research infrastructures (H2020)
- Interreg-financed projects – Cross Border Science and Society
- University cooperation – BUP and Nordic University hubs (a NordForsk programme)

The rationale for choosing these examples are that they are known to us, will give an overview of possibilities and problems with existing funding schemes and give rise to a number of interesting discussions. There are of course a number of other possible examples but we think that these examples will be enough to better understand joint programming. The grouping is according to the main aspect that will be discussed. A programme can include several aspects and RAC as an example has both support of research projects and summer schools for students there the latter can be said to be more of the supportive funding type.

In order to better understand these examples we developed a logic or idealized model of the development of joint programming with five steps ranging from the first idea and design step to evaluation.



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- Design – needs assessment and expression of benefits of proposal, stakeholder identification, programme concept development and negotiations
- Decision– formal definition of scope and objectives together with stakeholder input
- Organisation – establishment of administrative structures and allocation of resources
- Programming – activities like calls with their evaluation panels etc, outputs like grants
- Evaluation – assessment of results

4. Lessons learned from existing examples

Design is the most important and formative of the five steps. Bonus and JPIAMR can be said to be examples where needs assessment was a key to the developments. In both cases the size and spread of the problems to be addressed by research was such that a collaborative effort was very valuable. Any recommendations from the research would also benefit from having a broad base of researchers that could explain the results. A single country cannot solve the problems addressed.

A key to success is that stakeholders are identified in each country and their role in the national research system understood together with their boundary conditions for investing in joint programming. As an example, the NordForsk programme on Societal Security can be used. Sweden is represented by the Swedish Research Council (SRC) in the NordForsk board. A simple question about the interest in a programme on societal security might easily have resulted in a negative answer. Rephrasing the question and asking if there is any organisation in Sweden interested in a programme on or responsible for societal security gives another answer. That NordForsk had the right understanding of the Nordic funding systems and could address the right stakeholder, in this case the Swedish Civil Contingencies Agency, was one of the keys to starting this programme.

Outside the Nordic collaboration transfer of funds across borders is often a problem. In the case of RÅC this was an identified problem. The solution was that German funds stayed with the German partner in Germany and vice versa for the Swedish partner. In the common application for grants the work plan has to define collaborative goal and the contributions from each partner to this goal.

To some extent there is also a possibility to act when window of opportunity opens. This requires a good knowledge of the funding systems and changes in the funding and research landscapes. Examples could be the Hamburg seed money scheme that was part of a reform of the funding system in Hamburg and the RAC initiative that was coupled in time with the huge research infrastructure (RI) investments in Hamburg and Lund. It could also be said



that each call for applications within a programme are a window of opportunity. Within the framework of a programme it is possible to discuss focus of the calls and adjust them according to needs. As an example, the calls related to RI from the European Commission are discussed in a programme committees before being included in the work programme. Another possible example could be Interreg funds there the project Cross Border Science and Society shows how the focus of the calls can be suited to needs at a certain time.

Design of a programme is also an ongoing process over time. Bonus has as an example gone through three phases when it comes to funding, starting as an ERA-NET, continuing as an ERA-NET+ and now being financed through Article 185. RAC is an example of a programme without time-limit but constrained by having to show success and being evaluated regularly. This programme makes small changes in almost every call adjusting to what the funders considers most important for the time being. In this case it is coupled to the development of the facilities being built. The project cycle is shorter than the time it takes to build and commission these facilities so the calls should be adjusted accordingly.

Most often joint programming is of the type where funders come together to jointly fund research projects with researchers as principal investigators. There are, however, also some examples with a higher degree of involvement of universities. BUP is a network of a large number of universities building on membership fees to run the collaboration. The universities themselves own the power to construct calls and other collaborations and can tailor the collaboration to mutual benefits. Another example of involvement of universities is the NordForsk programme on Nordic University hubs. In this case the relation is between a funding agency and a consortium of Universities. In both cases the focus is broadened from research to also include more of the environment there the research is carried out, sometimes also including related education. Both of these and especially the NordForsk programme are interesting since they can be seen as change drivers for the basic structure for excellent research rather than the excellence within a project or certain field of research.

If two or more nations have been able to negotiate a programme concept and are ready to take decisions to start joint programming the next four points, decision, organization, programming and evaluation, of course will be very dependent on the concept and important considerations in the decision. Some experiences, however, seems to be common to many joint programming experiences. It will take time, and if you try to accelerate the process you might lose trust among researchers. Good communication is one of the keys to success and having a good structure and plan for communication is necessary. Building trust among researchers is necessary if best researchers will find it worthwhile to set aside time to apply to the programme. Two points that researchers usually are looking into is amount of administration and peer review process. It is recommended to use existing structures for programming since these usually are well known to researchers and add as little administrative overhead as possible for the researchers. The same goes for the peer review process. Starting a new programme might, however, need changes to well-known national processes in order to fulfill the goal of the



programming. Therefore, the peer review process is one of the most important steps and should be set up with care. Once again, implementing the design will take time. Even if there is a good plan for evaluation of the programme from the beginning it could be valuable to have some flexibility when it comes to evaluation. Both the research landscape and the programme will develop over time and it could be good to be able to start evaluations according to needs as a complement to planned evaluations. This is especially true in situations like in RÅC where there are no well-defined programme periods like in the EU setting with the Framework Programmes.

5. Synthesizing experiences

The main recommendation² of the evaluation of joint programming at the EU level is:

"Each of the JPIs (and any other prospective ones) should be invited to consider their longer term strategy in terms of socio-economic impact objectives/deliverables and what support instruments they would need from the next Framework Programme. Any such proposals should, of course, include firm commitments from national stakeholders (including how they will integrate the JPI within national programming) and, where appropriate other, societal challenge stakeholders such as industry." (p. 63)

Since this recommendation today is well known in the EU any attempt to start joint programming at the macro-regional level will probably benefit from being able to show a firm commitment from the involved stakeholders. This commitment will be depending on what benefit they see with joint programming compared to national funding and what kind of change they see that the programme can drive. Since there also is a need for long-term stability of the joint programming a bi- or multilateral agreement would be the best ground to start from. Waiting for every stakeholder to be ready will be difficult since there is often an election or reorganization somewhere in the group. A too high dependency on project funding, i.e. any of the EU funds, will not show the necessary long-term commitment. Such funds will of course be very important but should not be the basis for an agreement. To the extent possible existing structures and processes should be used. Having said that there could, however, be instances there as an example Interreg or other funds could be used to start cooperation. Based on idea behind the NordForsk programme Nordic University Hubs and experiences from the Cross Border Science and Society project some limited number of Universities could probably start cooperation in an EU-funded project form. This is more of a bottom-up approach compared to programming and will not be explored further.

² Captured in the earlier quoted report "Evaluation of Joint Programming to Address Grand Societal Challenges: Final Report of the Expert Group".



6. Proposal for a joint programming start

The members of the BSN have different roles within their national research systems and it will be difficult to find a common agreement covering and funding different areas. Therefore, it is most likely that success will be achieved by addressing also other stakeholders in each country. The members of the BSN should consult the stakeholders they consider most likely to be interested in the themes that are the result of Activity 3.2. Depending on which stakeholders that express interest to be in a starting group drafts of necessary agreements can be produced. The proposed model for joint programming to start with is a model built round the RÅC, i.e. founded by the stakeholders, using existing structures for administration and peer review and also including planning for evaluations. This can be seen as a variable geometry agreement from a macro-regional perspective since it does not involve any body above the national level to start with and only the most interested partners. From this perspective it will also be much easier to let national funds stay national, virtual pot, and use the programme as a collaborative layer on top of national funds. The level of collaboration between researchers is, however, much deeper compared to networking and every application for funds will also be evaluated in the peer review process from the perspective of benefits from the collaboration. Collaboration between funders is based on common programme committees and common evaluations.

7. Preparations for the members of Baltic Science Network

In order to prepare for further discussions each member of the BSN can prepare along the following lines:

- Value – Why should the programme be done in this context? Is the programme in line with our strategy? What kind and size of support would be beneficial to the research community in question? Can the programme act as a driver for positive changes? Compare alternatives and prepare for discussions based on knowledge of your organization and research community, i.e. develop your own arguments to be stronger in coming negotiations.
- Role of the organization – What is compatible with rules and procedures in our organization/country? Are there other organizations better suited in our country? Is it possible to support the programme with administrative resources/peer review processes?
- Desirable follow-up – How often and in what ways should the output/outcome/effect of the programme be analysed?



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Links to examples:

Röntgen Ångström Cluster: <https://www.rontgen-angstrom.eu/>

NordForsk: https://www.nordforsk.org/en?set_language=en

Nordic Societal Security Programme:

<https://www.nordforsk.org/en/programmes-and-projects/programmes/samfunnssikkerhet>

Nordic University Hubs:

<https://www.nordforsk.org/en/programmes-and-projects/programmes/nordic-university-hubs>

Bonus: <https://www.bonusportal.org/>

JPIAMR: <https://www.jpiamr.eu/>

Research Infrastructure, EU: https://ec.europa.eu/info/research-and-innovation/strategy/european-research-infrastructures_en#funding

Cross Border Science and Society: <http://www.scienceandsociety.eu/english/>

Baltic University Programme: <https://www.balticuniv.uu.se/>

Hamburg seed money facility:

<https://www.hamburg.de/bwfg/landesforschungsfoerderung-hamburg/>