

StarDust Final Publication

Stronger Together

Strengthening Global Position through Business and Innovation Collaboration in the BSR

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This work has been coordinated by VINNOVA, with contributions from StarDust partners, and BSR Stars High-Level Group members.

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A Summary of Key Messages and Recommendations from the StarDust coordinator

The ambition to become internationally competitive and plugged-in to global value chains is one of the key forces driving growth and economic development in many countries. For companies, research organisations and other innovation actors in the Baltic Sea Region (BSR), it is very clear that this ambition can seldom be achieved by acting alone. Establishing a sustainable competitive edge requires the ability to create unique combinations of specialised competencies – all working together to develop solutions that address new market opportunities.

The flagship programme BSR Stars aims to catalyse such internationally-collaborative innovation activities. BSR Stars is based on the challenge-driven and smart specialisation approaches. The challenge-driven approach assumes that "grand societal challenges" (created by e.g. demographic, urbanisation and environmental trends) also form "grand opportunities" for future business growth. For the BSR macro region, the smart specialisation approach means forming "smart" alliances between different research and innovation milieus (involving companies and research actors with specialised knowledge) – creating unique combinations of complementary competencies with good potential to develop new solutions that meet market needs.

Through the StarDust project, we have managed to test this challenge-driven, macro-regional smart specialisation approach – delivering on ambitious targeted results and proving the potential of such an approach. We have shown the value of a common policy framework – the BSR Stars programme – which has acted as a bridge-builder and catalyser for innovation activities between actors from neighbouring countries. StarDust has focused on testing collaborative methods and policy support to a set of five transnational innovation partnerships (called "pilots").

StarDust management has challenged the partnerships to create long-term strategic action plans (until 2020), focused on delivering added value from macro-regional cooperation between strong milieus/ actors in different countries. The ambition has been to give the partnerships a driving force for developing transnational cooperation – aimed at obtaining the innovation capacity needed to be globally competitive and to become an attractive partner to the best milieus in the world. It is clear that the cooperation platforms built both on a project level and on a policy level are appreciated by all countries involved – and therefore need to be continued.

To continue this positive development, three actions need to be taken:

1) Engage all BSR countries in BSR Stars governance

All BSR countries should agree and commit resources to continue the development of the BSR Stars' programme governance structure – charged with setting the strategy and implementing operational activities – through 2020. Time and funding on the national level should be supplemented by support from Nordic and EU territorial cooperation programmes.

2) Develop flexible financing mechanisms

Regional and national level funding bodies should develop and target resources for flexible financing mechanisms to support transnational innovation activities in the BSR. These financing mechanisms should feed into and complement EU programmes.

3) Improve the operational framework of the BSR Stars programme

The BSR Stars Steering Group and programme management should improve the design and implementation of the programme. This can be done by validating strength of the partnerships, using cluster organisations to mobilise actors' engagement in international activities, establishing clear key performance indicators for the partnerships, and providing active process support to the collaborative development.

Kanin Nygaid Shalman

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This story starts four years ago in 2009, when the European Commission launched its first macro-regional strategy in the Baltic Sea Region (referred to as EUSBSR¹). Driven by the overall goals of strengthening research, technological development and innovation set forth by the Strategy, the flagship programme BSR Stars set out to build on the macro region's diverse set of research and innovation strengths and foster smart combinations of competencies with the potential and drive to find new solutions to market needs and societal challenges.

The BSR Stars programme aims at linking strong research environments, clusters and SME networks – creating a number of globally-leading innovation partnerships that address common societal challenges in the Baltic Sea Region. The programme also aims at strengthening innovation policy capabilities to work with smart specialisation on a macro-regional level. The StarDust project was initiated in 2010 as a first step towards realising the overall long-term goals of BSR Stars, and testing the strategic policy frames.

As the three-year project comes to an end, it is now time to take stock. Have we achieved the results we set out to achieve? What have we learned along the way? What do we recommend to ensure the continued success of BSR Stars going forward?

StarDust Activities and Results

The StarDust project was designed as a project in order to learn and be able to draw policy implications for the

longer-term development of BSR Stars. The core of StarDust and the "testbed" are five transnational innovation partnerships: Active for Life, Clean Water, Comfort in Living, MarChain and Mobile Vikings. Each partnership brings together researchers, clusters, SME networks and public actors from different countries – combining different perspectives and areas of expertise. Each partnership has had different strategic ideas for their partnership, pursued different activities and methods of developing their collaboration (and has targeted different types of results).

The StarDust project was initiated with expected results in five main areas:

- Establishing open innovation platforms for new innovation collaboration
- Developing and testing various user-driven innovation methods
- Strengthening capabilities and competencies for working with transnational innovation collaboration (on both policy and operational levels)
- Increasing involvement, information flow and transnational collaboration
- Influencing financial instruments to support transnational collaboration
- Over the course of the project, the five partnerships
- complemented by a number of supporting activities
- have helped the BSR Stars realise its objectives in all of these areas. Some highlights from contributing project results from StarDust are found below.

Highlights from StarDust project results



Lessons Learned

The StarDust project has provided an opportunity to test many aspects of working with transnational collaboration, resulting in a number of lessons learned related to initiating and developing collaboration in transnational innovation partnerships, and related to providing a strategic policy frame on the macro-regional level.

The initiation of transnational innovation partnerships must be built on...

- A clear strategic idea and value proposition
- Capable leadership of both individual clusters/ innovation nodes and the transnational partnership
- Strategic anchoring and longer-term commitment from home organisations and regional/national governments

The collaborative strength of transnational innovation partnerships can be facilitated by...

- Enabling dynamism in partnership arrangements (e.g. different levels of engagement in activities, efficient procedures for entry and exit of partners)
- Using cluster organisations (or similar institutions) to mobilise company involvement and accelerate innovation activities
- Having a balance and iterating between developing longer-term strategic plans for the partnership and actively doing things together
- Providing process support (e.g. ongoing coaching, inspiration from experts, training and guidance with strategy development, etc.) tailored to the needs and level of collaborative development of the partnership

The macro-regional policy frame provides an essential strategic context and operational motor, through...

- Enabling faster, more effective linkages between specialised innovation nodes
- Providing ownership and legitimacy of the strategic value of the partnerships, and ensuring integration of the actors into a broader context – strengthening international attractiveness
- Facilitating accelerated joint policy development and implementation, complementing national and EU policy objectives

Recommendations for the Future

StarDust has provided the opportunity to test operational approaches to initiating and developing transnational innovation partnerships, as well as to test strategic policy frames, governance structures and financing instruments. The lessons learned during the implementation of StarDust have provided insights on how to improve BSR Stars going forward. We make three recommendations.

Continuously develop BSR Stars' governance structure through 2020

There is a need to keep the strong commitment and endeavor for broader involvement of all countries in driving the implementation of BSR Stars. We recommend that the existing governance structure of BSR Stars – comprised of a steering group (HLG²) and programme management secretariat – continue to exist and be developed through 2020. The Steering Group (consisting

of members from ministries and innovation agencies from 10 countries) should have continued responsibility for the overall policy strategy and objectives of BSR Stars – ensuring complementarity with EU and national strategic priorities.

The programme management secretariat should have a stable structure, engaging and utilising competencies from all involved countries in a dynamic manner. The programme management secretariat should have responsibility for operational management of the programme (including coordination of calls, process support to the portfolio of transnational innovation projects, etc.). Active programme management support to project partnerships and platforms that are (and will be) part of BSR Stars is essential in setting the goals and ambitions to reach a competitive global position. The financing of the governance structure is suggested to be based on a combination of national, Nordic and EU territorial cooperation programme funding.

Develop flexible funding instruments on a macro-regional level to enable more efficient operationalisation of collaboration

Different kinds of funding instruments are appropriate at different stages of development. To facilitate initiation of transnational innovation partnerships, we recommend that regional and national funding sources be leveraged in coordinated macro-regional calls for pre-studies and planning grants. Collaborative project ideas that result from this stage could then apply to existing EU-level programmes for continued development of their transnational innovation partnership.

The financial period from EU territorial programmes should be flexible, and there should be possibilities for partnership projects to get financing for 3+3 years. Alignment of funding is needed to help the partnerships develop. This means that the EU territorial programmes should aim to build upon priorities made in national and regional programmes.

In more advanced stages of collaborative development within the partnerships, we recommend that regional/national (and perhaps Nordic financing) be made available in a fast and flexible manner as a complement to EU programmes, to enable operational experimentation and fund specific innovation projects that may spin out of the partnerships.

Make adjustments in the design and implementation of BSR Stars

 Transnational collaboration in the BSR should be based on the key principle of building on existing strongholds in each country, and creating added value by combining complementary competencies from different countries. Each region/country develops research and innovation milieus through their own national and regional programmes. Transnational BSR cooperation between such actors/milieus should be based upon the smart specialisation approach (above), and a number of "basic entry criteria" should be validated by the BSR Stars programme management and Steering Group.

- The BSR Stars programme should focus on cluster organisations' capacity to proactively mobilise actors' (especially small and medium size companies) engagement in international activities. The cluster organisation may also act as link between business, researchers, and public sector organsations – facilitating transnational collaboration.
- Policymakers should establish key performance indicators on the partnerships from the early start of projects. Indicators should be developed for both the collaboration process (how to strengthen strategic linkages), as well as for market expansion and innovation activities. It is important to develop a "theory of change" that takes into account the different time frames of market and innovation activities.
- The BSR Stars programme frame should provide a concrete "process support offering" to partnerships in the portfolio, including: experience exchange, enable dynamism of partnerships, and facilitate new linkages between strong innovation and research milieus, clusters and companies.

The continued development of this successful shared innovation policy framework and operational programme requires the combined efforts of all the BSR countries. Our ability to work together will help enhance our global position and competitive strength in the future.

See http://ec.europa.eu/regional_policy/cooperate/baltic/index_en.cfm
A list of BSR Stars' High Level Group (HLG) members can be found in Appendix I

StarDust in facts and figures

Total budget: 6.5 MEUR

35 partners & 48 associated partners

Attracted add-on funding of more than 9 MEUR

Involved more than 800 SMEs in innovation activities

Developed 18 new concepts

Succeeded in 7 research and innovation calls for tenders

Tested 14 new collaborative innovation methods

Section I: What we've done

Background and Overview of the Strategic Framework

Increasing the global competitive position and innovation capacity by linking neighbouring countries – the strategic idea of BSR Stars

BSR Stars is a transnational programme and policy collaboration that aims at strengthening competitiveness and economic growth in the Baltic Sea Region by fostering transnational linkages between specialised research and innovation nodes. In the longer term, this will lead to new types of collaboration with the aim of developing new products, services and business models for global markets. BSR Stars is a flagship within the EU Strategy for the Baltic Sea Region and contributes to achieving the goals of the Europe 2020 strategy. The programme is the first of its kind in Europe (having been jointly developed by ten countries and tested since 2010), and represents the "state of the art" in smart specialisation and challenge-driven innovation policies on a macro-regional level.³

BSR Stars is built on a number of departure points:4

Linking globally leading innovation milieus

- A focus on solving societal challenges and finding new market potentials in areas where the Baltic Sea Region can be globally competitive, and where the market for new system deliveries, applications, products and services is substantial
- A systemic view on innovation i.e. innovation demands collaboration and a social context that brings smart individuals together in the macro-region
- An acknowledgement of the existence of strong innovation environments⁵ in different fields in each country that have the role of facilitating cooperation between triple helix actors (research organisations, companies and the public sector), and that can act as a catalyst for sharing knowledge and developing business between countries
- A balance between supporting development and growth in existing structures, and supporting more radical innovation and renewal for tomorrow's growth platforms



SECTION I

SME-networks

Innovation milieus

Public Authorities

Clusters



Background and Overview of the Strategic Framework



New business opportunities by addressing grand challenges

- A view of the Baltic Sea Region as a shared "resource base" for innovation to happen (not excluding stronger relations to other growth regions in the world)
- A belief in the need for trust and social capital to be built in order to realise the full potential of transnational collaboration

The last decade has seen an unprecedented expansion of international collaboration in research, development and innovation. Many countries have developed specific measures for improving international RDI collaboration to globally source knowledge, boost economic development, or satisfy an increasing domestic demand for specialist personnel. This has reached a level where there are no longer purely national innovation systems.

The long-term vision of BSR Stars is to establish globally-leading innovation hubs and work towards a more integrated resource base in the BSR as a macro-region.

The mission is to shape a more integrated and dynamic resource base by linking strong research environments, clusters and SME-networks – creating a number of globally leading research and innovation hubs in the BSR in order to achieve stronger critical mass, attractiveness, and a competitive international position. These hubs (or transnational innovation partnerships) will be skilled in identifying market potentials in "grand challenges", mobilising competencies that may be dispersed over different sectors and geographies, and providing open platforms from which various actors can work together to create innovative solutions that tackle these challenges.

The BSR Stars programme is a long-term initiative working towards four overall objectives:

- 1. Facilitating transnational networks, partnerships and strategic alliances between cluster organisations, companies, universities and public authorities, which lead to:
- new collaborative business models, commercialised applications, products and services
- increased export activities (both between countries within the BSR and outside of the BSR)
- new firms and jobs
- 2. Sharing, developing, and utilising open and demanddriven innovation methods⁶
- Improving innovation policy capabilities to leverage specialised national strongholds – bringing added value to all involved (i.e. macro-regional smart specialisation)
- 4. Strengthening the international visibility and attractiveness of the BSR's innovation capabilities

Background and Overview of the Strategic Framework

Working on policy strategic and operational levels in parallel

In order to achieve the long term goals of BSR Stars, there needs to be continuous development of both the strategic policy frames, and the operational activities that are undertaken.

On a policy level, innovation strategies, policies and financial instruments need to support transnational collaboration. The EU Strategy for the Baltic Sea Region provided the over-arching framework, and many national and regional-level innovation strategies have already mirrored the aim of stronger transnational collaboration on innovation. True macro-regional action also requires that the shared strategic aims are reflected in policies and financial instruments in the participating countries. A coordinated programme governance structure can help enable effective implementation, and continuous development and renewal of policy measures.

On an operational level, companies, research organisations and societal actors need to explore and act on the potential of the macro region (through collaborative development activities, market expansion, etc.). Innovation processes are enhanced through the diversity of involved agents and individuals. By teaming up with complementary partners, companies and other actors have the possibility of leveraging their own strengths in combination with others in order to address challenges or take advantage of market opportunities that are not possible to take on alone. For some actors, clusters and other innovation nodes may help speed-up linkages and the development of trust by serving as proactive bridging agents – identifying relevant opportunities and complementary competencies, as well as facilitating collaborative action.

Companies and research organisations – as well as policy actors – need to interact across the various levels of innovation systems (see illustration below) to ensure that innovation processes can reach their full market potential.

- 3) The BSR Stars programme is a joint effort of ten countries (Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland and Sweden) that has been developed since 2009 – involving experts from these countries' ministries, national innovation agencies, cluster organisations, SME-networks and research/ innovation organisations. The programme is a result of longer-standing policy cooperation and sharing of good practices in the field of cluster development that has existed between these countries over the last decade.
- 4) These departure points have been inspired by both academic literature, policy strategies and national programmes, and are continually revisited – ensuring that the programme reflects current innovation policy strategies and priorities.
- 5) research and innovation centres, cluster organisations and SME-networks
- 6) Open and demand-driven innovation methods are those that support companies (and other organisations) to access and use knowledge from outside their own organisation (from other companies, research organisations, entrepreneurs, students, user groups, experts, etc.) – innovating together with partners to share both risks and rewards; methods can include new ways of gathering market intelligence (e.g. through signal sessions with experts and anthropological research), new ways of identifying potential collaboration partners, new ways of collaborative development (e.g. interactive innovation camps), etc.



Experimenting with developing transnational collaboration – StarDust

The StarDust project⁷ is the first step in achieving the long term goals of BSR Stars. The project is led by VINNOVA in Sweden. In total, StarDust mobilises 35 partners from the public and semi-public sector. These partners are supported by 48 associated partners from national, regional and local levels. This set of partners represents all national ministries and innovation agencies in the ten Baltic Sea countries. (See Appendix I I for a list of partners and associated partners.)

The partnering countries in BSR Stars viewed the project as an essential way to test and to learn more about what was needed for a full-scale implementation of BSR Stars. Over the course of the project, partners expected StarDust to result in new open innovation platforms (addressing grand challenges) and a toolbox of working with "user-driven innovation methods" between countries. Other expected results included developing new capabilities and competencies for working transnationally (among people working in cluster organisations and SME networks, as well as among people in national ministries and agencies), increasing involvement and information flow between countries, and influencing financial instruments to better enable transnational collaboration on innovation in the Baltic Sea Region. These results from the StarDust project are expected to contribute to a number of longer-term effects such as new innovation projects, commercialised products and services, and longer-term collaborative platforms addressing societal challenges. The overall effect logic for the StarDust project is illustrated below.

The core of StarDust and the "testbed" are five transnational innovation partnerships⁸:

- Active for Life new solutions for wellbeing and active ageing
- Clean Water partnership for increased business opportunities within the water sector
- Comfort in Living kitchen concepts for elderly
- MarChain a partnership for maritime collaboration
- Mobile Vikings a platform for increased innovation capacity and business mobility in mobile telecom

Each partnership brings together researchers, clusters, SME-networks and public actors from different

Actors	Activities	Output	Results	Effects
Individual companies academia, society	Orchestrate pilot projects	Strong business driven consortias	Open platforms for macro-region innovation collaboration	New innovation projects
Pilot project partners	Support pilots with innovative methods	Stronger strategic idea, linking new complementary competencies	Toolbox of user- driven, collaborative innovation methods	Commercialised products and services
National and regional innovation policy actors	Develop new concepts	Analyses and methods for working with grand potentials	New capabilities and competences	Long-term collaboration adressing global potentials
Transnational innovation policy actors	Identify grand potentials	More effective communication between actors	Increased involvement, information flow, transnational collaboration	Change in behaviour in innovation systems at EU, national, regional levels
	Establish communication platform		Influence of financial instruments	Perception of the BSR as a functioning macro-region
	Identify financial instruments			
	Test collaborative innovation models on transnational level			

Effect Logic of the StarDust project



Choice of strategic partners

countries. The partnerships combine different perspectives and areas of expertise. The set of partnerships are supported by various types of training, coaching, external expertise, etc. (see section on "process support" below) in order to support the development of the partnerships' strategic idea and value proposition, facilitate access to outside expertise and market intelligence, increase cultural awareness and strength of the collaborative partnership, and provide continuous coaching to catalyse progress.

The overall aim for the five partnerships is to establish sustainable platforms for continuous development and dynamic smart specialisation. During the implementation of StarDust, all parternships have been developing individual Strategic Action Plans (SAPs) – where they define their common vision and agenda, and create a "road map" for future operations reaching 2020 and beyond. The SAP is a living document with continuous improvements involving all stakeholders.

To ensure highest quality, all SAPs have been evaluated by teams of external experts. These external coaching/evaluation sessions have been conducted two times during the project (January 2012 and January 2013). The spider diagram above illustrates a condensed schematic result of the development of a strategic action plan over time.

The different labels in the diagram are all headings in the SAP. For each heading, expectations on development were set by StarDust management (see next page). Due to different circumstances, some partnerships decreased in certain areas from one year to the next. And, through active work in the partnerships, some areas improved. The external evaluation has been appreciated by the partnerships and given an incentive for further development. In early 2013, project management decided to add both a SWOT analysis and a discussion regarding the "business model" for the transnational platform. The business model development was inspired by Innovation Norway's approach with their clusters, using the Business Model Generation method developed by Osterwald.

The five transnational partnerships and support tools are described in the following sections.

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Sections of Strategic Action Plan	Expectations of StarDust management
Vision/Strategic Idea	Vision/strategic idea is well developed – both ambitious and realistic, well anchored and understood among partners, as well as well anchored and communicated to relevant stakeholders
Global Market Potential	Pilot partners have a clear and evidence-based understanding of the global market potential (for their strategic idea)
Current Position in Global Competitive Context	Pilot partners have a clear understanding of their unique selling points and how they complement each other; pilot partners have adequate knowledge of, and a strong global competitive position
Strategy to Reach a Global Position	There are clear goals, phases of activities, and outputs; there is a clear matching of short-term (StarDust project period) and the longer-term (2020) strategic idea
Choice of Strategic Partners	There is a clear understanding of and plan to access complementary competences and/or additional network partners ; evident involvement of all triple helix actors (particularly companies)
Leadership/ Governance	There is strong engagement and broad anchoring/support from home organisations among the pilot partners
Financing	There is a clear outline of financing needs, as well as a clear and realistic plan for attaining additional funds
Strategy for IPR and Agreements	There are clear routines for handling IPR and other agreements; there is evidence of existing agreements

Financed by the Baltic Sea Region Programme with 6,5 million Euro for a period of three years (2011-2013)

⁸⁾ The partnerships were selected through a transnational call for expressions of interest conducted in early 2010. More than 20 partnerships responded, and the BSR Stars steering group (led by VINNOVA) selected five to be included in the StarDust project application.

Testbeds for Transnational Collaboration – the five "pilots"9



Active for Life

Strategic Idea

Active for Life aims to make the Baltic Sea Region into a global well-being business hub, acting as a springboard for BSR companies to access global markets and attract foreign investment, expertise and industry. Active for Life supports the development of innovative service solutions, based on real user needs that promote the well-being and healthy lifestyle of people entering retirement.

Activities and Results

Based on identified focus areas, the pilot executed a series of workshops and matchmaking events for companies focusing on internationalisation and development of innovative services. More than twelve workshops and business events were carried out involving end-users and researchers, as well as more than 150 companies from a variety of sectors (such as travelling and tourism, health promotion, ICT and healthcare industry). The companies were supported by establishing new business partnerships within the BSR and by ensuring the development of new innovative service solutions across the BSR.

In that process, the national partners worked as a springboard for companies, clusters and researchers from their home region to the international platform. Firstly, national workshops where held to collect national requests and needs as well as to provide coaching before the international trainings and matchmaking events. Then in a second step, the interested parties from the partner countries were brought together. In this way, the consortia members provided national platforms, which were successfully linked to the international hub.

Highlights

Among many business accelerators within the expanding well-being sector, Active for Life sticks out with its unique approach of user-driven innovation (UDI). At the beginning of the collaboration, researchers, entrepreneurs and business development experts, researchers and end-users from the health and wellbeing sector met in a 4-day UDI camp to identify user needs and market niches within the sector. The aim was to analyse evidence on user needs and ideate on what type of business opportunities could be created for the end-user groups. Active for Life identified several thematic areas with new business opportunities for companies (for example travel packages for diabetes patients).

 The five transnational innovation partnerships were referred to as "pilots" during the StarDust project.



Clean Water

Strategic Idea

The long-term vision of Clean Water is to be an open dynamic platform for sustainable cooperation and business opportunities using expertise, innovative technologies and services on how to improve water quality locally and globally.

The strategic idea of Clean Water is to create and brand BSR Stars Clean Water Excellency Network. The purpose of this platform is to provide information about clean water related business opportunities, to create business between the actors, and to exchange expertise between research organisations. Other aims include influencing decision-makers by providing information about hazardous chemicals, current legislation and its implementation in different BSR-countries, and providing best available technologies for different challenges in the water sector.

Activities and Results

The backbone of the Clean Water consortia is a strong partnership between leading research and cluster organisations within the water sector. The Institute of Oceanology in Poland and the Kaunas University of Technology in Lithuania provided mappings and measurements on the distribution of nutrients and hazardous chemicals in the Baltic Sea.

The platform is continuously developing, and new partners have been joining (for example leading research institutions such as IVL-Swedish Environmental Research Institute and Linnaeus University). In addition, the collaboration succeeded in joining leading international research networks such as the EU Network "Conceiving Wastewater Treatment in 2020 – energetic, environmental and economic challenges" and the "International Network for Sustainable Urban Waterfront Development". The collaboration grew from four partners to 8 organisations in the partnership.

The pilot woke interest in Russia due to its good network and recent overview about best practices in waste water treatment technologies. The management board of Russian Vodokanal therefore undertook a Tour de Nordic with Clean Water to get to know best practices and new ideas from waste water treatment plants in Finland, Denmark, Norway and Sweden in 2012. Before that, researchers and entrepreneurs from the Clean Water platform went to St. Petersburg to discover the Russian water market, where they learned more about the water-related opportunities in St. Petersburg and Russia.

Highlights

During the process the consortia has developed cultural skills, giving a better understanding of the needs and how to manage water treatment in different markets. In addition, the partnership developed its skills to work between the research sector and cluster organisations.





Comfort in Living

Strategic Idea

Comfort in Living's objective is to develop concepts for multi-functional kitchens that improve the quality of life for seniors at home or in homes for elderly. The pilot responds to the growing societal challenge of an ageing population in Europe, who like to work and live longer in their homes, stay mobile and independent from elderly care centres.

The consortia of cluster organisations and research milieus in the project provide different competencies when it comes to design and housing concepts for the needs of elderly people. The project partners worked jointly with the design and creation of universal concepts and design solutions for modern houses, offices or public places.

Activities and Results

With the use of the Signal Session tool (for market intelligence gathering), the pilot received helpful input for user-driven innovation; this led to a focus on multifunctional kitchens for elderly. Based on this focus area, the consortia conducted a series of study visits and knowledge sharing sessions, helping to identify the specialised competencies that each partner could contribute to the joint development of multi-functional kitchens for elderly. Building on from this, several workshops were performed to engage both the academic sector and companies. To boost new innovations, a state of art workshop was prepared: a one-week Innovation Camp.

During the camp in July 2013, new and innovative kitchens for elderly were developed jointly by design students and companies. 34 design students, 18 companies, 7 expert lecturers, and 7 journalists from Denmark, Sweden, Lithuania, Finland, Estonia and Latvia met up to develop a set of concepts and prototypes for sustainable and multi-functional kitchens for the 65+ segment. Models were developed by the international cross-disciplinary teams, which by the end of the week competed to win the award for the best concept for a multi-functional kitchen, and the award for the best kitchen equipment for the target group 65+. Besides the aspect of design and functionality, the teams also had to develop a business plan for the final concept.

The consortia succeeded in strengthening its



partnership as well as won add-on investments by winning R&I tenders. Among the new partners were the Development Centre UMT in Denmark, Culminatum Innovation in Finland and the Estonian Academy of Art. During the pilot lifetime, more than 300 entrepreneurs have been involved. With the support of Innovation Norway, a new method (e-match) was introduced and tested to better match the company needs and establish more sustainable supply chains.

Highlights

The pilot's approach to the way traditional kitchen concepts and product ideas were developed was a dynamic and inspiring approach for companies. Kitchen producers have to re-think the elderly as target group and open up for approaches from abroad in order to unleash the strong market potential within this sector. Another reflection is the necessity to work across sectors, and bridge business and educational institutions. It was the first time that an Innovation Camp brought together designers, educators and leading businesses around the Baltic Sea. "I am honestly positively surprised about the well-functioning teamwork between the students of the different countries and disciplines, such as design methodology, concept generation or industrial feasibility discussions", said Mathieu Riviere, senior industrial designer at Electrolux at the Innovation Camp.



MarChain

Strategic Idea

The upcoming regulations on emissions of sulphur, nitrogen and ballast water are understood by this pilot as an opportunity to develop the Baltic Sea Region into one of the most innovative areas for maritime development. The transport of people and goods across water is often both fast and energy efficient, and therefore offers many business opportunities if new governmental regulations can be met by companies and other suppliers.

MarChain's strategic idea is it to provide a platform for maritime collaboration in the Baltic Sea Region and to give an opportunity to exchange knowledge, project development and business meetings for companies, academia as well as public sector representatives.

Activities and Results

Alternative fuels, modal shift with ports as hubs, and lightweight structures at sea are the three focus areas of the consortia. Faciliated by the MarChain cooperation, five new projects have been developed in three opportunity areas:

- solutions for more efficient handling of goods at ports
- development of new lightweight concepts for more energy efficient transportation in major cities around the Baltic Sea and in the Baltic Sea Region archipelagos, as well as for service and maintenance to the offshore industry
- cooperation in technology and infrastructure for new fuels

During the project period, a number of open seminars have been organised. SMEs, multinational companies, representatives from academic organisations and officials have participated. Those meetings provided knowledge exchange among experts and inspiration for project collaboration. Study trips have been another contribution to the knowledge exchange achieved during the MarChain collaboration.

MarChain has also contributed to an increased cooperation between academic organisations – an extremely important strategic effort to leverage research and education as the basis for a creative region. In the future collaborative activities, MarChain will target the involvement of young people. Cross-border research collaboration at a high level can attract the younger generation to exchange experiences, knowledge and new thinking.

Highlights

The need to exchange experiences, develop skills and find partners for development and innovation projects within the lightweight area, has driven the initiation of a European network for lightweight structures at sea. The platform will be used for project initiatives, knowledge exchange and the communication of possibilities for lightweight design as a driver for cost efficient use of resources. Another highlight is the initiation of a project for the concept development of small, energy-efficient ferries. In this project, innovation nodes in three different countries are working together – each contributing with their specialised skills – to act on this new opportunity area.





Mobile Vikings

Strategic Idea

The vision of Mobile Vikings is to further strengthen the Baltic Sea Region as an international leader in the development of mobile solutions. The cooperation leverages the established global position of the mobile industry within the BSR (in particular Sweden and Finland), as well as the overall maturity level of ICT solutions within the same region.

Mobile Vikings will leverage tools, methods and knowledge from its partners and design new approaches to develop stronger and more efficient ecosystems for mobile solutions in the BSR.

Activities and Results

Based on the strategic idea of Mobile Vikings to foster open innovation, the pilot built on the successful DEMOLA model from Finland. DEMOLA is a collaborative open innovation platform where talented university students co-create new solutions to real-life problems of companies. The companies have access to a unique variety of highly educated students, who propose solutions to challenges raised. Universities and regions can align and mobilise the already existing resources and strengths with collaborative action and co-creation.

Mobile Vikings has created a larger DEMOLA eco-system around the Baltic Sea Region. Since 2012, Mobile Vikings partners established new DEMOLA centres in Latvia, Lithuania and Sweden. Within these centers, innovative IT solutions have been developed. For example in Lithuania, a personalised route plan for tourists was built by students and entrepreneurs for the hotel business. Other clients include UNESCO, the Red Cross, and other companies.

In addition to building on the DEMOLA open innovation platform, Mobile Vikings also established a Business Roaming Agreement (developed by its partner Cluster 55). Business Roaming Agreements are an exchange program for companies, who have free access to local events, offices and networks of another cluster organisation abroad. Today, 48 locations in 24 countries participate in the Business Roaming Agreement. Thanks to Mobile Vikings partners, the Baltic Sea Region is strongly represented within this network – with 13 locations in 9 countries.

Highlights

The DEMOLA case shows that open access to knowledge, networks and resources are a key to transnational cooperation. Moreover, cross-sectorial approaches are an important step towards a competitive position on the global market in the ICT sector. Facing stiff competition and quick changes within this market,



the opportunity to join forces with other cluster organisations abroad was valued by the national cluster members of the partnership. Continued exchanges in the future will be facilitated by the Business Roaming Agreement.



Process Support

The StarDust project has provided a number of support activities to the five transnational partnerships (see illustration to the right) in order to facilitate access to outside expertise, catalyse collaborative processes, and strengthen capabilities for working transnationally.

As each of the five pilots have had different conditions and were at different levels of maturity in their collaborative development (initiation, pilot, establishment and sustainability – see illustration below), the support tools had to be tailor-made and adapted to their specific needs.

In the *initiation* phase, it is important for partners/ nodes in different countries to understand respective competencies and strengths – and how these relate to others internationally. In the *pilot* phase, partners begin conducting activities together (e.g. workshops and conferences, field studies, trade fairs, information exchanges) and learn more about each other. In the *establishment* phase, partners begin seeing the results of their short-term "pilot" actions and trust deepens. In the *sustainability* phase, partners are interested in developing more sustainable platforms for collaboration (including institutional and financing aspects).

Each of these phases of development can be facilitated by different types of policy support – in the form of financing and other support activities. The support tools in StarDust were used to safeguard a more rapid and quality-ensured development.



Process support covered a wide range of activities, from strategic issues to concrete practical tools to ensure the development and participation of SMEs. (See overview of "support toolbox" to the right.)

In addition to the process support tools listed in the table, a number of analyses and research/learning activities were conducted to support the knowledge base within the partnerships and among the policymakers (see Appendix III for a list of selected reports).



International Cluster Cooperation Maturity Framework

Overview of "support toolbox"

Tool	Support function	Facilitator
Process support and management	Continual coaching/facilitation of each pilot to provide advice and facilitate the strategic development of the collaboration, and address challenges as they arise	VINNOVA
Communication and Branding	Communication strategy, training on storytelling and branding strategies, common homepage, newsletter, Twitter, LinkedIn	Lithuanian Ministry for Economy, VINNOVA
Benchmarking and evaluation	Regular evaluation and coaching of pilots by external experts	VINNOVA
Access to finance	Information on programmes, and consultancy support to find right funding instruments and draft applications	LIAA
Match Making and company database	e-match – tool for advanced partner search and match-making of companies	Innovation Norway
Strategy development tools	User-Driven Innovation camp – four day workshop to analyse evidence of user needs and identify new business opportunities based on user needs	Culminatum
	Signal session – one day workshop to map out and ideate new business opportunities	Culminatum
	Innovation camp – one week workshop with students, companies and researchers to develop business concepts and produce prototypes	Danish Innonet Lifestyle, with Culminatum
	Business model canvas- strategic management and entrepreneurial tool to develop business plans	Innovation Norway
Knowledge sharing	Guidelines for facilitating the development of partnerships and matchmaking within and between clusters or networks of organisations	Enterprise Estonia, Estonian Ministry of Economic Affairs

What have we achieved? An overview of the results

The expected results from StarDust were new open innovation platforms, a tested toolbox of open innovation methods, strengthened capabilities and competencies for working transnationally, increased involvement and information flow between countries, and influence on new funding instruments. The overview of facts and figures (below) and review of results provides evidence that we have achieved what we set out to do.

The results and effects are presented based on the hypothesis developed jointly by ten countries before the start of the StarDust project. (Please refer to StarDust's effect logic presented on p.12.)

Open innovation platforms for new innovation collaboration

The five transnational pilots took the first important steps towards the establishment of transnational open innovation platforms. Business plans and branding strategies have been developed. Within the consortia, 35 partners have been representing research organisations, science and business parks, clusters, and public innovation and growth agencies from 9 countries. These partners have been supported by an additional 48 join in these activities as well. The experience shows the importance of working with both short-term activities and long-term strategies simultaneously.

Toolbox of user-driven methods developed

The collaboration has a unique set-up compared to other transnational innovation projects – with a broad toolbox (including a range of support tools), and continuously available process support. As the process support covered a wide range, many different tools and methods have been tested within the pilots. The innovation camp and signal sessions are two examples of user-driven methods that have been used. In addition, several tools for analysing transnational collaboration have been developed during the project, including a new framework for monitoring cluster dynamics on a transnational level, and a framework for evaluating and coaching the development of the partnerships' strategic action plans.

The collected experiences are a key to successful innovation methods and policymaking that can be leveraged in other geographies outside the Baltic Sea Region. The lessons learned will have an impact on similar initiatives in other macro regions as well as on the upcoming EU funding programmes (including the BSR Programme and the "Clusters Go International" programme within COSME).



StarDust in facts and figures

associated partners representing companies within their particular focus areas, as well as regions and other key players of the triple helix. Within the project, the pilots succeeded in strengthening their partnership by joining forces with other leading innovation hubs and networks, such as ScanBalt or Danish Innonet Lifestyle.

The partnerships have developed long-term strategic action plans which are open for other strong interested partners to join. These plans are the basis for longerterm cooperation. During the StarDust project, the partnerships have also shown the capability to initiate and run shorter-term projects with some or all of the partners. If needed, new partners have been invited to

New capabilities and competencies

In interviews, partners have confirmed that they have developed new capabilities and competencies as a result of the StarDust collaboration. Many of the partners have been able to develop their own quality of work by benchmarking with others (e.g. the marine cluster in Tallinn has developed their own targets and indicators by benchmarking their way of working with other partners in MarChain, and then increased the quality of work in their own harbour). The overall knowledge of each partner's strengths and weaknesses has been made visible – which creates a basis for further collaboration. The

positioning and the specific niched competencies in a regional or national cluster are now more visible and understood by the cluster organisations involved¹⁰. This facilitates joint strategy development, priorities and division of tasks.

"What I like is that each country had to do a program inviting the other countries to show the profile – the key competencies – of the country. It was a good way to establish networks." Cluster Manager

Other capabilities and competencies mentioned by partners regard the management and operation of transnational cooperation¹¹.

"StarDust has with its national and international meetings opened up for cross culture knowledge, competencies and cooperations." Cluster Manager in Sweden

Increased involvement, information flow, transnational collaboration

Increased involvement and information flow between countries when it comes to innovation policies and initiatives was foreseen as an important pre-requisite for influencing national innovation policy to become more international. Information flow, collaboration and involvement is something that all partners mention as results¹².

The StarDust project built on from its strong set of partners – mobilising and engaging a large number of new companies, research organisations and intermediaries.

Type and number of organisations engagedSMEsMNEsResearch OrgCluster OrgIntermediaryTotal8051043617881

The information flow between partners in the pilot projects has resulted in exchange of knowledge on cluster development and how to support the development of member companies.

"The StarDust project exposed us to new innovative possibilities enabled by other branches (to be implemented and offered to the environmental technology companies) – new ideas for developing their competences, constructions and services." Cluster Manager

There are examples of how the information flow has led to exchange of knowledge on how to develop the regional and local infrastructure for innovation. The Demola concept is one example where students are involved in innovation activities, a concept that has been spread from Finland to other localities in the BSR.

For national policymakers, valuable information flows include, for example, the development of new innovation

policy initiatives in the different countries and development dialogue on how to support future transnational innovation collaboration. National representatives also highlight that the multi-level dialogue has been valuable especially regarding specialisation issues¹³. The internationalisation aspects of developing national policies are mentioned by representatives from ministries and innovation agencies: *"We are now planning the new financial instruments, and it has definitely influenced the way of thinking about internationalisation. There is definitely a clear intention; people are thinking about making the cluster programme international (it is on the agenda), so this might be a result actually." Policymaker*

The BSR Stars High Level Group has had a key role in highlighting and addressing policy needs. The experience of policy development gained by the BSR Stars High Level Group has been used to develop the action plan for EUSBSR, and also to advise EU territorial programme development (i.e. the BSR programme).

Influence on financial instruments

Influencing and launching financial instruments that enable transnational collaboration on innovation in the Baltic Sea Region is another reached objective. In 2012, BSR Stars opened a competitive call for proposals targeting innovative technological solutions, jointly developed with BONUS (the Baltic Sea research and development programme). Individual innovation proposals were able to apply for a maximum EUR 0.5 million for three years. 12 projects were selected in the innovation call for proposals. Moreover, the BSR Innovation Express call was launched in early 2013 to foster the internationalisation of SMEs through cluster organisations. The call attracted 47 applications from cluster organisations and business networks in the six funding partner countries, and resulted in 28 new international collaboration projects, involving more than 900 SMEs in the Baltic Sea Region.

In interviews and workshops conducted as part of the final evaluation of StarDust, partner organisations expressed that financial instruments need to be further developed to support transnational collaboration on innovation. There is impatience with the slow change of financial instruments at the same time as national and international innovation policies promote transnational collaboration as a way to spur innovation¹⁴.

New innovation projects

In interviews with partners, new innovation projects are some of the results that are most strongly emphasised. The collaboration platforms on grand challenges/ potentials that have been developed are seen as a base

for many new innovation projects in the selected fields. An example of this is a pilot collaboration between two regions in Sweden and Finland. While working with the StarDust project, one of the partners (the region of Skåne) developed their innovation strategy which identified sustainable smart cities as a key platform for future development of the region. Also in Finland, a new innovation program evolved called INKA which uses cities and regions as a driver for innovation.

VINNOVA, together with the Region of Skåne, started a pilot project in 2012 investigating how system innovation could be developed using smart sustainable cities and internationalisation as driving forces. At the same time, the Ministry of Economy in Finland supported clusters and regions to visit and develop cooperation with partners in Skåne. This resulted in a strategic cooperation not only between the city of Tampere and the Region of Skåne, but also including nations, clusters, researchers and companies. The cooperation aims to expland to include the city of Hamburg. This new partnership is an example of multilevel governance.

Another piece of evidence is the large amount of add-on funding that has been mobilised for new innovation projects. On top of the 6.5 MEUR from the Baltic Sea Region Programme 2007/2013, the consortia of partners won 7 research and innovation calls – unlocking add-on funding of approximately 9 MEUR (see illustration below). The Nordic Mobility Programme, the BSR Programme and the Swedish Institute and other national funding schemes are just some of the financiers of these new innovation projects (or further developed partnerships).

An unexpected result that is mentioned in evaluation sessions is that partners have used the network created in the StarDust project to increase their global visibility¹⁵. For example, the Mobile Vikings partnership managed to attract foreign investors. Small companies in e.g. Latvia, Lithuania, Germany, Sweden, Poland and Finland have through this partnership been able to present themselves to multinational global companies from both USA and China. In the Comfort in Living partnership, the Latvian partner joined the Danish associated partner when they hosted a design event in Hong Kong. The Danish royalty then acted as a door opener for the Latvian partner into the Asian market.

Commercialised products and services

Since the start of the project in 2011, more than 800 SMEs have been engaged in the project activities (e.g. in match-making events, signal sessions or the user-driven innovation camps). SMEs and other involved companies in various branches (e.g. Electrolux, Telia Sonera and ThyssenKrupp Marine Systems GmbH as well as Gerrnanischer Lloyd SE) have contributed to the



Add-on Funding

development of 18 new product concepts and prototypes across the five pilots. Among them are for example new furniture prototypes for elderly developed by the companies, students and researchers within Comfort in Living, or new personalised mobile guides for the tourism branch, which were developed by students and companies within the DEMOLA platform.

Another unexpected result is the cooperation between two Swedish partners Sustainable Sweden SouthEast (a cluster working with clean tech) and Future Position X (a cluster working with global information systems), which - together with VINNOVA - initiated a project targeting the Chinese market. The project has involved several companies, a university and a municipal waste water treatment plant. The two clusters combined their respective contacts (nationally, in the BSR and in China), experiences and public sector backing to get new perspectives and input on business models, culture and cooperation opportunities. The project resulted in an offer for a feasibility study to a Chinese company hopefully a first step for future demonstration plant cooperation between SSSE and FPX in Sweden, and China.

Longer-term collaboration addressing future global potentials

Longer-term collaboration has been developed on different levels. Pilot partner's organisations have gained a strengthened network and knowledge about strong partners and knowledge in other countries. New transnational agreements on innovation and collaboration have been initiated between cluster organisations in different countries. One example is the Business Roaming Agreement between partners in Mobile Vikings, which enables actors to use each other's facilities and gain access to each other's networks while visiting another country.

In interviews with partner organisations, the majority of partners intend to leverage the current partnership for future collaborative activities. There is a will from partners to also create cross-sectorial collaboration in the macro-region as a way to enable new innovation opportunities¹⁶. Already, StarDust national and international meetings have inspired the environmental technology cluster Sustainable Sweden Southeast (SSSE) to pursue new ideas and activities in crossclustering and cross-sectorial networking and collaborations through the "Cingus" project with FPX (described earlier).

On a national level, representatives from ministries and innovation agencies also see ways that they can use the partnership for the development of national innovation policies and activities. The policy platform – enabling exchange of knowledge for developing the transnational collaboration on innovation – is widely appreciated¹⁷.

A goal with StarDust has been to establish the BSR Stars project portfolio. Today the BSR Stars program hosts the five StarDust projects and BSR Food (a transnational partnership developing business opportunities for small and medium enterprises in the food sector). This project has so far been financed nationally. Another project in the portfolio is BSR SHIFT - an accelerator project which supports small and medium-sized companies in ICT and clean technology sectors - focused on early stages of developing socially sustainable business ideas. The **DEMOLA** platform which is an innovation method developed in Tampere where students, companies and researchers work jointly together developing new products and services is also part of the BSR Stars portfolio. The Demola concept has been implemented in the StarDust project, supported by the BSR Stars' High Level Group, and is now established as a transnational platform in the Baltic Sea Region. CeBa Testbed is another project financed by the Central Baltic Programme, utilising a transnational testbed for ICT and telecommunication between Sweden, Latvia and Estonia. The testbed is open to the market, and new products and services developed by e.g. StarDust partners may be tested in this facility.

In interviews with country representatives from ministries and innovation agencies, there is a strong view that transnational collaboration on innovation creates value and that platforms developed should be continued¹⁸.

Perception of a macro region and a change of behavior in innovation systems at EU, national and regional levels

There are different indicators of an increased perception of the BSR as a macro region. This is, in itself, a long term goal and a change in attitude – that business, research organisations, cluster organisations, innovation agencies and ministries would perceive the macro-region as a functional home market for both market and innovation-oriented relations.

In the workshops and interviews conducted as part of the final evaluation, it is clear that this is a long-term process. Actors involved appreciate the increased knowledge and the stronger network that has been created in the BSR, and see the value of cooperation as a way to increase competitiveness and innovation capacity. Cultural understanding and geography makes it easier to create cooperation based on trust.

¹⁰⁾⁻¹⁸⁾

StarDust final evaluation report

Section II: What we've learned

StarDust has provided the opportunity to test operational approaches to fostering transnational innovation partnerships, as well as to test strategic policy frames and governance structures. The project's effect logic established a hypothesis on how transnational partnerships could be initiated and developed, what outputs they could deliver, and how project results could contribute to longer-term competitive strength. Not only has the project succeeded in delivering the targeted results, but the project has also provided in-depth insights on the factors for success.

By setting clear strategic ambitions from the start, grounding our activities in established theories and analysis, using and building on good practice from separate "national trials", collaborating on a policy level to provide a strong "backbone" to the efforts, working hands-on to help innovation actors in different countries leverage their complementary competencies, and conducting research and evaluation activities to learn from what we were doing, StarDust has been successful in establishing a sound platform for continued macro-regional collaboration.

In this section, we present our key insights on "how it works" – our list of lessons learned based on "experiences from the experiment".

Initiating Transnational Innovation Partnerships – what are the success factors for getting started?

Given the complexity and long-term investment that is needed to develop trust and reap rewards from interactive learning and collaboration within transnational innovation partnerships, it is motivated to have demanding criteria at the start. These success factors for getting started include clarity of the strategic purpose of collaboration, capable leadership, and evidence of "home backing".

Transnational innovation partnerships must be based on a clear strategic idea and value proposition

It is important to define and communicate the valueadded of the transnational collaboration. It should be clear what each partner (cluster or other innovation node) brings to the table – and how their respective strengths can complement each other to address shared challenges or act on new market opportunities.

There should be a clear description of the "transnational value proposition" – describing the reasons behind and benefits of these partners teaming up, and what particular "strategic idea" the partnership aims to address. This value proposition should be driven by the needs and priorities of the companies and research actors within the individual clusters/innovation nodes – and developed in consultation with them. The transnational value proposition should explain why collaborative action between these partners will enable results that could not be achieved by any one partner on their own.

Joint strategic ideas take time to refine. Over the course of working together and developing a deeper understanding of others' competencies (as well as how they "match" with market opportunities), the strategic idea for the partnership may change – which may also affect the composition of the partnership.

Capable leadership of both individual innovation nodes and the transnational partnerships is imperative

Leadership of transnational innovation partnerships is critical. If strong leadership is not in place, it is difficult to organise and drive such complex collaboration activities.

On the transnational partnership level, a capable leadership team is needed to ensure clarity about the vision and to mobilise activities from partnering organisations around the vision. Leadership is also needed to ensure a combination of stability/continuity and dynamism in the partnership. Often, one



Initiating Transnational Innovation Partnerships – what are the success factors for getting started?



organisation is assigned the role of leader/coordinator of the transnational partnership. Through experience in the StarDust project, we find it important that the leadership is comprised of a core of two or three countries and that these (cluster) organisations have a strong agreement on the strategic direction of the partnership. From the programme owner perspective, the regional backing of these core leaders can help facilitate changes in leadership should they be needed (see next lesson). Such a strong "core leadership" can provide a more stable base and stronger "guiding light" for the rest of the partnership.

Success of transnational partnerships is also very dependent on the drive of individuals acting within the partnership – those representing the various partnering clusters (or other sort of innovation node). Capable leadership on the individual cluster level is needed in order to ensure an active dialogue with cluster actors as well as local and national governments. Individual leaders need to have particular skills (e.g. language skills and international expertise) and organisational capacity (i.e. backing/anchoring from their home organisations – see next lesson).

Anchoring and longer-term commitment need to be secured from home organisations and regional/national governments

It takes a long time (up to one-two years) to build trust between cluster initiatives from different countries, and an even longer time to build trust between the companies and other actors involved. For this reason, it is important to have strategic anchoring and longer-term commitment from the "home base" (both the local innovation environment and the regional/national government).

When initiating transnational innovation partnerships, it is critical that the partnering organisations (clusters or other innovation node) have a commitment to developing the transnational partnership, and the organisational capacity to act. Partner organisations should be prepared to invest their own time and financial resources to support prioritised activities of the transnational partnership. Evidence of commitment and organisational capacity can be secured by e.g. partnership agreements and letters of commitment from cluster steering committees/advisory boards and regional government.

Anchoring of the transnational partnership is important both at the start and over time. This anchoring can be secured by engaging representatives of boards/ steering committees of the individual nodes in "advisory boards" to the transnational partnership. Advisory boards should be leveraged to ensure that the direction of the partnership is synched with the goals of the individual clusters (and regional governments) over time. Advisory boards can also play an important role in raising legitimacy and communicating the importance and opportunities of the collaboration – both to local actors, and to financing organisations.

Facilitating Transnational Cooperation – what can be done to develop the collaborative strengths?

Once transnational innovation partnerships have been initiated, there are a number of ways that partnerships may develop. Some partnerships may only exist over a shorter period of time – taking advantage of critical mass or acting on a particular project opportunity. Other partnerships may more quickly reap concrete rewards to acting together – leading to a continuous flow of international activities and developing into longer-term platforms for collaboration. Experience from StarDust has highlighted a number of "characteristics of the partnership" and support activities that can help develop the longer-term collaborative strength of the partnership. These are explained below.

Transnational innovation partnerships are dynamic

Transnational innovation partnerships are collaborative arrangements that are formed to address a particular issue or act on a particular opportunity – bringing more value than would be possible through action of the individual cluster/innovation node. Individual clusters (or other innovation nodes) provide the partnership with competencies, experiences or network connections – and expect to receive e.g. new knowledge, business opportunities, contacts, etc. in return.

Whereas some members join transnational partnerships with longer-term strategic expectations, others may join to take advantage of an opportunity to learn or to participate in a shorter-term project activity. And individual cluster's expectations from and ability to contribute to the partnership may change over time.

The make-up of transnational partnerships is dynamic. The initial partnership is based on the shared strategic idea on how the cooperation can strengthen the individual cluster's (and the partnership's) competitive position. Over time, the partnership needs to continuously refine the strategic idea based on knowledge of competitive strengths and market needs/ opportunities. The formulation and refinement of the strategic idea is an inter-linked part of shaping the identity of the partnership. This also drives the makeup of the partnership.

Given this iterative process, there needs to be flexibility (accepted dynamism) of both entry of new partners and exit of partners (who don't have the same priorities or complementary competencies). It is beneficial to have flexible partnership arrangements – allowing different levels of engagement and the ability to change the composition of the partnership over time.

Cluster organisations can be used to mobilise and accelerate international innovation activities Cluster organisations (or similar) are organisations that increase the competitiveness and growth of regions by bringing different types of actors together. They connect business with academia, education with industry, large firms with small firms. A cluster organisation can play a very instrumental role in bridging gaps between different innovation actors, establishing better links between the business and government as well as serving the whole system of companies and increasing new business connections. Their role as "bridger" is focused not only on the internal gaps (within a cluster), but also increasingly on the external gaps (establishing linkages with other sectors and other geographies).

Cluster organisations have a particular understanding of their "member" companies and research organisations (the field of business and stage of development), and can proactively offer services that are more relevant and tailored to the specific needs of their "client" companies and research organisations (often in collaboration with other intermediaries - e.g. trade councils). Cluster organisations act as a bridge between public authorities and companies, companies and research actors, etc. Cluster organisations can also provide a broader context and brand for the cluster's particular area of expertise, and can catalyse international activities by constantly scouting for and 'filtering through' relevant opportunities. In addition, cluster organisations' active facilitation helps mobilise and involve companies in practical international innovation activities as early as possible.

During the StarDust project, cluster organisations worked as accelerators for their companies and research organisations – identifying relevant opportunities, mobilising engagement, and offering arenas to explore new linkages (through e.g. matchmaking events and the innovation camp described in the previous section). This has highlighted the possibility for leveraging cluster organisations – in collaboration with innovation centers abroad, trade councils, etc. – to moblise engagement and accelerate innovation activities (particularly for smaller companies).

It is important to have a balance between developing strategy and doing things together

Transnational innovation partnerships are formed based on a strategic idea, and an initial understanding of the value proposition for joint action. This initial value proposition should be tested early on through operational experimentation involving cluster actors (companies and research organisations). By doing things together, the transnational partnership can more concretely exhibit the benefits of collaboration. This, in turn, helps to develop the strategic idea as well as the strength of the partnership.

The strategic development of the transnational

Facilitating Transnational Cooperation – what can be done to develop the collaborative strengths?



innovation partnership refers to the (continuous) refinement of the strategic idea, value proposition and "strategic positioning" of the partnership in relation to market opportunities (and competitors). By implementing "operational experiments" (i.e. doing/testing things together involving companies and research organisations), see illustration above, the partnership is able to develop social capital and collaborative behaviours – strengthening the partnership and also providing more clarity about the value proposition of the partnership.

Different kinds of process support can help facilitate the development of transnational innovation partnerships

Given the complexity and challenges related to working in transnational innovation partnerships, StarDust experience has shown that it is helpful to support the partnerships with neutral coaching, expertise, training, and 'monitoring/evaluation' activities. External process support can help to facilitate strategy development, catalyse partnership building and support learning and experience exchange between partners.

Support tools need to be tailored to different partnerships' needs as their collaboration develops over time. In initial phases of the partnership, more support may be needed to develop the strategic level (e.g. developing the strategic idea, the value proposition/ identity of the partnership as well as building social capital among the partners). A relatively smaller amount of investment and support is used on operational pilot actions.

Process support in the first six months may include:

- Training on key strategy concepts (including business and market intelligence)
- Facilitation to developing a long-term strategic action plan, planning short-term priorities, and setting expected results for the partnership
- Setting up advisory boards for the partnership and leveraging external experts/coaches

- Conducting vision-setting and communication/ branding workshops for the partnership
- Cross-cultural awareness and team-building, with particular focus on leading and managing transnational collaboration

In addition to process support, the partnerships need to access knowledge about competing players, relative positioning, market trends and opportunities – and define the value added of their combined competencies in relation to this. This intelligence gathering does not always come in the form of "off the shelf market analysis". It is a combination of impulses from other markets, expert knowledge, cluster actors' own market intelligence and mentorship. Having a continuous process of intelligence gathering from different sources helps avoid path dependencies and contribute to the dynamism of the partnership (just as for any company on a global market).

There are benefits to common, obligatory workshops or capacity building activities at each meeting; this builds social capital and enables cross-fertilisation. Such cross-fertilisation provides opportunities for experience exchange, but also helps to catalyse new perspectives on opportunities to combine expertise across sectors. Access to additional cluster/network manager training should be provided as needed, with a transparent approach for ongoing coaching and involvement of external experts.

Over time, experience with operational activities helps the partnership to refine the strategic idea (and develop collaborative strength). As the strategic level becomes clearer, more attention (and investments) is placed on the operational activities – implementing the strategic idea.

Providing the Strategic Context – what is the role of the macro-regional policy frame?

Innovation policy instruments or programmes are typically formulated in relation to regional or national innovation systems. The EU's initiation of strategies for macro regions created a new geographical frame for innovation policy development. The BSR Stars flagship programme was developed to contribute to fulfilling the overall research and innovation objectives of the EU Strategy for the Baltic Sea Region (EUSBSR). As a first implementation milestone, the StarDust project has provided the opportunity to explore the role of the macro-regional policy frame – providing a number of insights that can be used in planning the next steps of the BSR Stars programme.

Transnational collaboration between policymakers can enable faster, more effective linkages

Collaboration between policymakers across national borders helps mobilise international collaboration activities among all actor groups, enables more effective linkages and catalyses faster action. In the case of the StarDust project (and BSR Stars more broadly), the "high-level group" (HLG) of policymakers has fulfilled a number of functions which support regional and national efforts aimed at strengthening international collaboration.

Throughout the StarDust project, the HLG has served as national contact points – providing information on latest policy developments, and identifying relevant players with specialised competencies in their countries. This informational "fast track" has helped to mobilise participation, provide "door opening" support, and speed up new linkages between companies and research organisations. In addition, the HLG serves as a forum for policy learning – where colleagues in different countries can spread information about latest innovation policy priorities, new programmes or other activities that are being undertaken in their respective regions/ countries.

Macro-regional policy fora can provide legitimacy and international branding

The BSR Stars HLG has provided strategic leadership and continuous development of the flagship programme. The backing (from ministries and agencies in 10 participating countries) has given the programme strong legitimacy in a broader international context. The initiation of common analyses (e.g. on innovation policy strategies or specialisation strengths in the BSR – see Appendix III) has provided a factual base from which to develop the policy frame. Within this policy frame, the HLG has also been instrumental in setting ambitious goals and providing strategic guidance along the way.

At the start of the StarDust project, the HLG

established a set of eligibility criteria for entering the portfolio of transnational innovation partnerships within BSR Stars. By establishing a set of criteria, the HLG set a standard and provided a "quality control" of the transnational partnerships. This brings a higher level of legitimacy in international contexts, and helps the partnerships establish



a stronger brand. Communication activities within StarDust/BSR Stars have helped reinforce the brand image of the partnerships and strengthened their ability to acquire additional funding from other EU programmes.

Macro-regional policy fora can be leveraged for joint policy development and implementation

Macro-regional policy fora are effective not just for policy learning (exchange of good practices and mentorship from colleagues in other countries), but also for joint policy/programme development. During the implementation of the StarDust project, the HLG enabled the implementation of two calls for new transnational innovation partnerships: BSR Stars/BONUS Innovation call, and BSR Innovation Express. Through coordinated action between the BSR countries, it was possible to initiate joint pilot projects and feasibility tests, organise common matchmaking events, launch common calls, synch decision-making procedures and ex-post evaluation frameworks, and even agree on common "top-up financing" (provided by the Nordic Council of Ministers).

These two calls provide examples of policy development on the macro-regional level – serving as a learning case for other macro regions in the EU, but also inspiring and influencing EU-level programmes.

20) See http://www.bsrstars.se/project/bonus-call-2012-innovation/ and http://www.bsrstars.se/project/bsr-innovation-express/

22) Experiences from BSR Stars/StarDust have been used as one of the inputs to the forthcoming "Clusters Go International" programme within COSME.

With representatives from ministries and innovation agencies in each of the 10 participating countries

²¹⁾ The business orchestration project for smart cities (between Tampere and Skåne) and the feasibility study for an expanded Demola platform in the BSR are two examples.

Section III: What recommendations for the future of BSR Stars?

Innovation processes are enhanced through the diversity of involved agents and individuals, and also the proximity of these actors. The strategic idea of BSR Stars is to promote efficient and effective use of public investment in research and innovation by enabling regions to focus on their strengths. The support and facilitation of transnational linkages between innovation actors and clusters can help to strengthen economic and functional links within the BSR – contributing to a shared resource base and more effective innovation processes in the macro-region.

Experience from StarDust has shown that these efforts at facilitating transnational linkages have yielded desired results. This provides evidence of the potential that coordinated efforts have. National policy learning workshops have also confirmed the desire to continue and strengthen the BSR Stars policy strategy and programme activities. It is this leadership and commitment from each country that will drive the success of BSR Stars going forward.

The lessons that we've learned during the implementation of StarDust have provided insights on how to improve BSR Stars going forward. The first set of recommendations is related to improving the design and implementation of BSR Stars – initiating, developing and following-up the transnational innovation partnerships within the BSR Stars portfolio. The last two recommendations are related to developing the policy framework – both the macro-regional funding and governance structures.

Launch BSR Stars 2.0 – with strengthened design and implementation mechanisms

Establish and validate fulfillment of "basic entry requirements" for transnational innovation partnerships

Given the complexity and long-term investment that is needed to develop trust and reap rewards from interactive learning and collaboration within transnational innovation partnerships, it is motivated to have demanding eligibility and selection criteria. These should include clarity of the strategic idea and value proposition of the collaboration, capable leadership, evidence of "home backing", and involvement of company and research actors.

There should be a clear strategic idea for the collaboration – outlining a particular societal challenge or market opportunity that can only be addressed in collaboration. There should be a motivation for the composition of the partnership – explaining what each partner brings to the table and what value a joint collaboration will bring.

Each partnership should be spearheaded by a strong "core leadership" (i.e. 2 or 3 strong innovation nodes) – which can back-up and complement each other and guide the activities of the partnership. Individual leaders should have relevant language skills and international experience, and support from others in their home organisation.

All partners should be able to provide evidence of "backing" from their home organisations (e.g. allocated time and financing, as well as "letters of commitment" from cluster steering committees/advisory boards), and regional government (e.g. "letters of support" confirming that the activity is part of the region's strategic priorities, participation in the transnational partnership's advisory board, etc.). In addition, each partner should be able to explain how companies and research actors will be engaged in and benefit from the partnership's activities.

Leverage cluster organisations' capacity to proactively mobilise actors' engagement in international activities

As explained in the lessons learned, we have seen that cluster organisations are working as accelerators for their companies and research organisations – identifying relevant opportunities, mobilising engagement, and offering arenas to explore new linkages. Given this existing role, it would be beneficial that the BSR Stars programme leverage cluster organisations to mobilise engagement of new actor groups (e.g. students, small companies), catalyse new connections (between students and companies, between companies in different sectors, etc.) that would not likely happen otherwise, and accelerate innovation processes.

Cluster organisations should be viewed as neutral representatives of the innovation actors in their region, and should be able to participate and be funded as "non-economic actors" within transnational innovation partnerships.

Set expectations by establishing "key performance indicators" on the partnerships from the start

Policymakers need to set clear expectations on transnational innovation partnerships from the start... both in relation to strengthening the strategic linkages and collaboration, and in terms of achieving expanded markets or strengthened innovation activities.

BSR Stars works to support transnational innovation partnerships at different phases of development (illustrated below).

At any one time, BSR Stars will be comprised of a portfolio of projects at various stages of development. When it comes to measuring results of transnational cluster cooperation, these results must be linked to different development phases and to the goals of what cooperation should lead to.

The partnerships have different kind of rationales, and expected results and indicators needs to take this into account. A cooperation with the objective of accessing new markets by having stronger critical mass would have expected results of e.g. increased exports



Launch BSR Stars 2.0 – with strengthened design and implementation mechanisms

and increased SME visibility in foreign markets. In contrast, a cooperation with the objective of taking collaborative action to address grand challenges would have more innovation-oriented results such as initiated research and innovation projects, engaged research environments, and attracted investments to these activities.

This general logic of short-term results, long-term results and effects could be linked to particular indicators. Based on experience during StarDust, a first suggestion of indicators that could be considered (for both business/innovation-oriented and collaborationoriented results/effects) is presented in the table below.

Provide a concrete "process support offering" to partnerships within the BSR Stars portfolio

The BSR Stars programme should set demanding "entry requirements" and clear expectations on results (or "key performance indicators") that will be monitored over time. These are responsibilities that the transnational innovation partnerships must meet to be a part of the BSR Stars portfolio. In return, BSR Stars should offer process support to partnerships in the portfolio – tailored to their different stages of development and individual needs.

In the initial (pre-study/planning) phase, process support could include: information on and door-opening to relevant partners (innovation nodes and competencies) in other countries, and coaching on the development of a longer-term strategic idea for the partnership.

Upon completion of the pre-study/planning phase, transnational partnerships should have a strong core leadership, an initial strategic idea, and a mobilised set of actors. Process support in the next partnership phase should kick-off with a "boot camp" for all new transnational innovation partnerships in the portfolio. The (4-5 day) boot camp should focus on three main topics: building knowledge on capacities of other partners; developing a business model/value proposition for the partnership; cultural awareness and team building. This boot camp should be followed-up by ongoing coaching and facilitation of various other support tailored to partnerships' needs (e.g. market intelligence, communication, training, etc.). Progress towards established results and performance indicators should be assessed by external experts/evaluators 12-18 months after the initial boot camp.

Process support to individual partnerships can be supplemented by other activities such as networking and experience exchange, regular "matchmaking" activities or thematic events to enable new linkages and continued dynamism of the partnership, and broader branding/ awareness-attraction activities.

For partnerships that develop into longer-term platforms, process support can include continued experience exchange, facilitation of mentorship activities (more mature platforms can serve as experts/mentors to new partnerships), and support to going global. Activities to establish more global linkages can be catalysed by closer relations to public sector actors.

Proposed Indicators

Short-term results (1-3 yrs)	Long-term results (3-5 yrs)	Effects (>5 yrs)	
Business/innovation-oriented results:	Business/innovation-oriented results:	Business/innovation-oriented effects:	
# of SMEs engaged in the activities (of these,	#/amount of new commercial contracts	Increased exports as % of turnover among	
# engaged on a recurring basis)	new collaborative business models/value chains	cluster companies (SMEs and large companies)	
# of large companies and research organisations engaged in the activities	initiated amount of new RDI investments secured (from	Increased FDI among cluster companies Increased international co-authorship and	
# of new collaborative projects (research, development or commercial exchange) initiated	both public and private sources)	co-patenting (among cluster research organisations)	
New prototypes, product or service concepts developed			
Collaboration-oriented results:	Collaboration-oriented results:	Collaboration-oriented effects:	
Clear strategic idea and value proposition for the partnership (measured by partners' and their companies' perception of value of collaboration)	Strong, operationalised collaborative platform (measured by e.g. # of accelerator services/pilot actions that lead into business results, partners'	Increased international visibility of partnerships (references to European "meta clusters" in international media)	
Core leadership (2 MS) with strong local anchoring/ backing (measured by Lol and/or in-kind contribution	and their companies' perception of value of collaboration, etc.)	Increased rate of innovation through collaboration (CIS)	
of time)	Strategically important/relevant partnership		
# of new MoUs/cooperation agreements with 3rd countries	(measured by e.g. financial backing/co-financing from partners' home regions/MS)		
	Dynamic and visible/attractive partnership (measured by e.g. new partners coming into the partnership)		

Develop flexible funding instruments on a macro-regional level



Quick flexible funding speeds up time to action Rigid structures and low accessibility vs. flexible and accessible structures

Different kinds of funding mechanisms are appropriate at different stages of collaborative development (see illustration on p. 33). Short-term financing (around 12 months) through pre-studies or planning grants can help build transnational consortia (involving companies) around a shared strategic idea/ vision. Medium-term project financing (up to 3 years) can support the partnership in initiating action on their common strategic idea and developing their longer-term strategic action plan. During this period, it is important to have resources (financial and human) available to enable operational experimentation (involving companies) and investments in concrete "doing-using-interacting" processes. It is good to have options for building collaboration/ developing new activities (with increasing and longerterm levels of financing depending on commitment and ambition levels). Such resources should be accessible rather quickly – within 3-4 months.

Based on experience over the last three years, it seems that initial phases of transnational collaboration (pre-study/planning grants) could be best facilitated through coordinated calls using national/regional financing. Many countries have existing budgets targeting international cooperation which could be used. These initial pre-study/planning grants could aim to feed into EU-level programmes (e.g. territorial cooperation programmes, Horizon 2020 and COSME). These EUlevel programmes should provide the possibility for longer-term financing of transnational innovation partnerships. Partnerships that deliver expected results in an initial three-year period, and demonstrate a clear strategic direction with concrete plans in the longer-term should have the possibility to extend their financing for an additional three-year period.

As a complement to EU programmes (which typically have longer application, selection and contracting procedures), it is encouraged that faster, more flexible financing instruments are developed to enable operational experimentation within the transnational partnerships. Based on positive experience with financing transnational pilots within BSR InnoNet and the BSR Innovation Express call (both developed in collaboration with the Nordic Council of Ministers), a common pot administered by either a national innovation agency or Nordic Innovation could be one alternative. Another alternative could be leveraging existing regional/ national programmes to provide supplementary funds to "own" partners.

Continuously develop the BSR Stars' programme governance structure through 2020

BSR Stars is a flagship within the EU Strategy for the Baltic Sea and as such is responsible for providing guidance and recommendations to the priority area coordinators of innovation. The innovation agencies and ministries responsible for innovation policy that were involved in the design of BSR Stars are now represented in BSR Stars' Steering group – called "BSR Stars HLG". Representatives from the ten countries have responsibility for governing the BSR Stars programme which includes:

- 1. Development of policy strategies and initiation of analyses and learning activities
- 2. Development and branding of BSR Stars
- 3. Making decisions on the acceptance of partnerships into the portfolio
- 4. Coordination with other flagships in EUSBSR, EU Commission, other macro regional flagships (such as in the Danube region), national and regional bodies/ programmes that are related to BSR Stars' overall mission
- 5. Development of financial instruments that can support BSR Stars' activities
- 6. Ensuring effective implementation of the BSR Stars programme (establishing the mandate and financing of the programme management secretariat and HLG activities)

The innovation agency from Sweden (VINNOVA) has acted as the leader of BSR Stars together with the Ministry of Economy in Lithuania as co-lead. VINNOVA has during 2009-2013 also acted as programme management of BSR Stars and as secretariat to the BSR Stars HLG.

The main tasks for the programme management are to continue to act as a secretariat to the BSR Stars HLG and to actively monitor and facilitate the development of the partnerships in the BSR Stars portfolio. Process support and capacity building activities are a part of this activity.

It is imperative that the BSR Stars governance structure enables coordination and policy alignment across various levels of governance (i.e. cluster, regional, national, macro-regional and EU), as well as between countries on the same governance level (i.e. between clusters in different countries, between regions in different countries). In practical terms, we recommend policymakers to develop mechanisms that support and increase knowledge sharing between different levels.

For the next period (2014-2020), we recommend to develop the governance structure of BSR Stars – maintaining the overall roles and structure of the BSR Stars steering group and programme management/ secretariat, and involving a broader range of countries in the fulfillment of these roles. One way to achieve this is to establish advisory boards for each transnational innovation partnership. Regional and national policymakers would participate as part of these advisory boards.

The governance structure could be financed by a combination of funds e.g. BSR and other territorial cooperation programmes, Nordic and national funds.



BSR Stars programme governance structure

Appendix I, II

Appendix I: List of BSR Stars' Steering Group (HLG) Members

Steering Group Members

- DE Federal Ministry of Economics and Technology, Wolfgang Crasemann
- DK Danish Business Authority, Henrik Noes Piester
- EE Ministry of Economic Affairs and Communications, Mart Laatsit
- EE Enterprise Estonia, Tiiu Evert
- FI Culminatum Innovation, Carola Wictorsson
- FI Baltic Institute of Finland, Esa Kokkonen
- FI Ministry of Employment and the Economy, Pirjo Kutinlahti
- IS Innovation Center Iceland, Berglind Hallgrímsdóttir
- IS Ministry of Industries and Innovation, Elvar Knutur Valsson
- LV Latvian Investment and Development Agency, Maris Elerts
- LV Ministry of Economy of Latvia, Mārtiņš Jansons
- LT Ministry of Economy of Lithuania, Vilma Puriene
- NO Innovation Norway, Knut Senneseth
- NO Royal Ministry of Trade and Industry, Norway Mette Hjermann
- PL Ministry of Economy of Poland, Michal Urbankowski
- SE Swedish Governmental Agency for Innovation Systems, VINNOVA, Karin Nygård Skalman/ Erik Bunis
- SE Swedish Governmental Agency for Innovation Systems, VINNOVA, Joakim Appelqvist
- SE Ministry of Economy, Energy and Communications Stefan Cairén

Associated Steering Group Members

- DE WTSH Wirtschaffsförderung und Technologietransfer Schleswig-Holstein GmbH, Ulrich Hausner
- SE Region Skåne, Lennart Svensson/Maria Lindblom
- NCMNordic Council of Ministers, Annika Rosing/ Kristian Henriksen

Appendix II: List of Partners and Associated Partners Project Partners

- DE WTSH Wirtschaffsförderung und Technologietransfer Schleswig-Holstein GmbH
- DE BioCon Valley of Mecklenburg-Vorpommern
- DK FORA The Danish Business Authority's Division for Research and Analysis
- DK Department of Health Science and Technology, Aalborg University

- EE Estonian Ministry of Economic Affairs and Communications
- EE Enterprise Estonia
- EE Estonian Maritime Academy
- FI Culminatum Innovation
- FI Turku University
- FI Lahden Seudun Kehitys LADEC Oy
- FI HERMIA, Competence Cluster for Ubiquitous Computing
- FI Machine Technology Center Ltd
- LT Ministry of Economy of the Republic of Lithuania
- LT Klaipeda Science and Technology Park
- LT Kaunas University of Technology
- LT Visoriai Information Technology Park
- LT Agency for Science, Innovation and Technology
- LV Latvia Information Technologies Cluster
- LV Investment and Development Agency of Latvia
- LV Art Academy of Latvia, Design Department
- LV Latvian Logistics Association
- NO Innovation Norway
- PL Maritime Academy Gdynia
- PL Institute of Oceanology of Polish Academy of Sciences
- PL The Accounting Department, Poznan University of Life Sciences
- PL The Department of Furniture Design, The Faculty of Wood Technology, Poznan University of Life Sciences
- SE VINNOVA, Swedish Governmental Agency for Innovation Systems
- SE Region Skåne
- SE New Tools for Health
- SE Sustainable Sweden Southeast
- SE IDC West Sweden AB
- SE Mobile Heights
- SE Cluster 55°
- SE SP Technical Research Institute of Sweden
- SE Swedish Marine Technology Forum

Associated national partners

- DK Danish Business Authority
- FI Ministry of Employment and the Economy, Finland
- FI Baltic Institute of Finland
- IS Icelandic Centre for Research (RANNIS)
- IS Innovation Center Iceland
- LV Ministry of Economics of the Republic of Latvia
- NO Royal Ministry of Trade and Industry, Norway
- PL Ministry of Economy of Poland
- SE Sustainable Business Hub AB
- SE Tillväxtverket

Appendix I I

Associated regional partners

- DE Technology Center of Western Pomerania
- DK University of Southern Denmark Reg X
- FI The City of Helsinki
- FI The City of Tampere
- PL Pomorskie Voivodeship
- SE Region Gävleborg
- SE Region Västra Götaland
- SE County Administrative Board of Stockholm
- SE Region Blekinge
- SE Region Västerbotten
- SE Länsstyrelsen i Norrbotten

Associated partners to the pilots

- CR University of Zagreb, Faculty of Forestry
- DE Mobkom.net (Berlin)
- DK Danish Innonet Lifestyle Interior & Clothing
- DK Maritime Development Center of Europe
- DK BrainsBusiness ICT North Denmark
- EE Estonian Academy of Arts / Tallinn University of Technology
- EE Marine Systems Institute of Tallinn University
- FI Helsinki Business and Scinece Park Oy Ltd/ Viikki Food Centre

- FI Jyväskylä Regional Development Company Jykes Ltd
- FI FinnMedi Oy
- FI Maritime Cluster Programme, Finland
- FI Finnish Culminatum Innovation's Living Business
- FI Forum Virium (Helsinki), Finland
- FI FinnMedi Oy
- LT Vilnius Gediminas Technical University
- LT Info Balt
- NO Trådlös Framtid/Oslo Teknopol (Oslo)
- NO ICT Grenland Norway
- NO Nordland Research Institute
- PL ICT West Pomerania Cluster, Poland, Szczecin
- PL West Pomeranian Maritime Cluster Association
- SE Baltic China Science park Network
- SE ChemSec
- SE IVL Swedish Environmental Research Institute
- SE Linnaeaus University; Faculty of Health and Life Sciences
- SE Future Position X
- SL University of Primorska, Slovenia

Appendix III

List of Selected StarDust Reports

Project Activity	Title	Abstract	Available
Analysis	Baltic Sea Region Innovation Monitor	FORA provides a strategic tool for policymakers in the BSR with a fact-based foundation for monitoring (and improving) the policymaking on innovation in the Baltic Sea Region. It offers an indicator-based model for benchmarking innovative capacity of the BSR and individual countries.	www.bsrstars.com
Analysis	Regional & Cluster Competitiveness in the Baltic Sea Region	The Cluster Observatory offers guidance for fact-based microeconomic policies in Europe. In this report, BSR specialisation in the four areas targeted in BSR Stars are examined.	www.bsrstars.com
Communication	Cluster Marketing and Branding – Case study of BSR Stars and StarDust	Tendensor analyses the marketing and branding strategies of BSR Stars and the StarDust pilot projects. The report gives key recommendations on how to brand transnational clusters in the future.	www.bsrstars.com
Process Support	Market/foresight intelligence and strategy development tools	Culminatum summarises its lessons learned around the tested innovation and market intelligence tools, such as the "Signal session" and the User-Driven Innovation camp. All tools are participatory events for businesses, academia and public authorities to capture weak signals and global trends, promote cross-fertilisation and idea generation.	forthcoming
Process Support	Knowledge Sharing Tools and Practices	Enterprise Estonia and the Estonian Ministry of Economic Affairs draw some conclusions from an interview study on how to employ tools for knowledge sharing in transnational projects, and which practices have proven successful.	www.bsrstars.com
Process Support	Analysis of national innovation measures regarding their potential for internationalization	Enterprise Estonia and the Estonian Ministry of Economic Affairs provide a mapping of innovation measures in different BSR countries and an analysis based on their internationality and purpose.	www.bsrstars.com
Process Support	Guidelines for partner search and collaboration development	Innovation Norway presents guidelines for facilitating the development of collaborative relationships and partnerships within and between clusters or networks. It gives specific recommendations regarding the development process as well as available methods.	www.bsrstars.com
Research/ learning	Baseline and follow-up analyses of the StarDust pilots	VINNOVA has conducted structured learning activities throughout the StarDust project. The baseline (2011) and follow-up (2013) reports summarise research results on companies and research organisations' drivers and barriers to internationalisation, the role that cluster organisations play in facilitating international innovation processes, and how collaborative strength has developed in the five transnational pilots over time.	www.bsrstars.com
Research/ learning	National policy learning summaries	VINNOVA has led policy learning workshops in each of the 10 countries participating in BSR Stars. The report summarises overall perceptions of the actors involved from each country.	forthcoming
Research/ learning	Doctoral dissertation	Building on the research/learning activities in StarDust, the embedded researcher has conducted more focused exploration of the role of innovation intermediaries in fostering globalised innovation processes.	forthcoming

The core "story of StarDust" and recommendations for the future of BSR Stars are now told. Yet there is always more to tell and show. In this additional "Part B" of StarDust's final report, we share a number of stories from the five pilots, as well as from BSR Food and Demola innovation networks. We also put some faces to all the previous text and stories – presenting some of the StarDust/BSR Stars team.

As part of the activities of the final conference, innovation journalist Kajsa Norman helped us capture the key messages from our project for a broader audience – the stories from StarDust. These stories (with photos from Torbjörn Lagerwall) are presented here.

Active for Life – Riding the Silver Tsunami

The number of people over 60 years of age is expected to multiply in the coming decades. In 2050 more than 2 billion people will be elderly. That means an increasing demand for products and services that promote wellbeing and active aging. "They do not want to be categorized into the same group as the old pyjama-wearing grandpas. And they definitely don't want to purchase the same products and services," says Gonçalves who feels this is a greatly misunderstood market.

"Many focus too much on old people as dependents who suffer from illnesses or mental disorders. But this target group is just like you or me, but with more money, more time and a greater interest in comfort," says Gonçalves.

55-70 year-olds are the biggest newcomers on Facebook and the biggest buyers of things like iPhones and Ipads. They make up a very big and growing market that is still fairly unexplored. One of the more difficult tasks that the Active for Life project has taken on is to attempt to identify the future needs of this group.

"You can't just ask people what the need. Like Henry Ford said "If I'd asked customers what they wanted, they would have said 'a faster horse'," says Gonçalves.

To help member companies and researchers discover areas of potential future demand, Active for Life



Project lead Hugo Tamagnini Gonçalves

"How can we capitalize on the silver tsunami?" asks Hugo Tamagnini Gonçalves, project leader of Active for Life, a transnational cluster collaboration between companies, researchers, and the public sector in the Baltic Sea region.

Active for Life tries to help its members identify business opportunities aiming to enhance the quality of life of the elderly population.

"Northern Europe has well-developed health care systems and expertise in these areas that we can capitalize on to solve a challenge that is on the agenda of practically every region in every country," he says.

The target group is 55-70 year-olds. People who are mobile and healthy, who want to enjoy their golden years.

organizes workshops involving end-users and so-called signal sessions, a kind of video conference involving input from subject-matter experts. Data regarding consumption habits is collected and processed. Ideas for potential products and services are then evaluated and co-developed by the end-users.

So far the project has resulted in several spin-offs, new products, new companies and new innovation and cooperation projects. 170 non-member companies have also expressed an interest in joining the network.

Currently, many companies in this industry target hospitals and other public health care institutions, but selling to the public-sector is often difficult and timeconsuming. Also, many governments are gradually shifting investment from the healthcare sector to health promotion and self-care. There are many regulations to

comply with so Gonçalves encourages members to target the end-users directly.

"There won't be enough funding for the public sector in the future. End users will have to pay more for their services. So we have chosen to focus on them from the start. What type of services can we put out there that can improve quality of life and that the consumers are willing to pay for themselves?"

Here, the travel industry offers many opportunities to explore. Retired people generally enjoy traveling and are able to do so for extended periods of time. Many are keen to combine their travel with interesting experiences such as practicing a sport, taking a university course, or engaging with the local community in some way during their stay. Entrepreneurs who have been able to put together interesting package combinations that appeal to such active travelers have been particularly successful in the project. But even companies developing more

Clean Water - Cleaning up the Baltic Sea

"It is a priority to contain and improve the deteriorating conditions of the Baltic Sea," said Lithuania's President Dalia Grybauskaitė at the 4th Annual Forum of the EU Strategy for the Baltic Sea Region, held in Vilnius on November 11-12.

This is very much in line with the objectives of the Clean Water project. They have created a cooperation platform that combines the competences found in the innovation milieus, clusters and SME-networks across hands-on products are able to benefit from elderly people's affinity for travel as hotels are frequently used to show case new products.

"Hotels in our network have great potential to act as a kind of Living Lab allowing people to try new and innovative products during their holiday. They can have some fun and if they like a product they can purchase it and take it home with them," says Gonçalves.

One recent innovation is the ProXWalker; a belt with cables that allows the user to Nordic walk but without the hassle of having to drag the poles around.

Gonçalves likes the idea of developing new business while simultaneously helping to solve the aging challenge.

"I feel I'm merging business with a social approach. It's exciting," he says.

the Baltic Sea Region. Focus is on challenges relating to water protection such as wastewater treatment, hazardous chemical substitution, and of course business opportunities and the boosted competitiveness of the region in this field.

One goal for the near future is to build a Water Excellence Centre Platform.

"Awareness raising is important. The platform will act as a 'one-stop-shop' for companies where they can get



The Clean Water team at the BSR conference in Malmö

access to all sorts of information," says Johanna Kilpi-Koski, project leader for Clean Water.

She envisions a virtual platform where information regarding business, research, and legislation can be uploaded and found by the different members.

"It's important to find out the differences in legislation and how we can learn from each other. The next step would be to attempt to affect decision-making and influence tenders before they are launched," she says.

One tangible outcome of the Clean Water project is a joint Chinese venture undertaken by members of Future Position X, a cluster focusing on geographical information systems, and Sustainable Sweden Southeast, a cluster focusing on environmental technology. An interesting opportunity for the Swedish companies is to improve their knowledge and experiences in how to develop and build energy-efficient wastewater plants together with the Chinese partners. After visits to China the companies have now put together a proposal to conduct a feasibility study.

"The idea is for our companies to initiate one of the first energy-efficient wastewater plants in China while training the Chinese on how to do it so that they can continue on their own and in turn sell their services to other Asian countries. Management and consultancy opportunities for Swedish companies is another expected outcome," says Ann-Christin Bayard, head of Sustainable Sweden Southeast.

Several of the companies involved have tried to enter the Chinese market before, but found it difficult and time-consuming. Going together might remove some of the obstacles. Sustainable Sweden Southeast has a person stationed in Shanghai to help companies. This, in combination with the Chinese expertise found at Future Position X, has been valuable in helping the companies put together their business plan and proposal.

"We can see that it is possible to establish oneself as a service provider in China," says Bayard.

Comfort in Living

Imagine a helping hand strong and agile enough to assist you with the routine things you can no longer do yourself? That is just one of the prototypes developed at this year's innovation camp by Comfort in Living.

"Who is Alma? What does she do everyday? What would she like to do and how can we help her?" asks Mathieu Rivière, senior industrial designer at Electrolux in Stockholm. He is pointing to a picture of a lady in her 70s. She is one of the imagined customers that designers, companies and innovators from the Comfort in Living-team, aim to please.

The purpose of the project is to focus on product development for the comfort of living among the growing population of elderly people in the Baltic Sea Region. The project responds to the growing societal challenge of an aging population in Europe as well as in other parts of the world.

"It's about feeling safe enough to be able to live on your own longer, but also about growing old with comfort and dignity," says Lotten Svensson, head of the Comfort in Living project.

So far the project has resulted in a wide variety of products.

Polish researchers participating in the project have recently patented auxetic springs for furniture. By inserting the springs into chairs, sofas, or mattresses, the researchers claim to be able to relieve pressure on the back and spine as well as prevent bed sores.

"It has the same beneficial effects as water beds but



Mathieu Rivière from Electrolux at the BSR conference in Malmö

is cheaper and easier to implement," says researcher Beata Fabisiak.

A special type of wood referred to as honeycomb is also used to produce furniture that is stable but very light and thus easy to move.

But the biggest success of all stems from an event in July when 85 people participated in a one week Innovation Camp in Copenhagen. Teams of young designers, mentors and business representatives from 17 companies and seven countries were mixed and matched in cross-cultural teams.

"It was a nice creative mess! A design workshop is a fantastic opportunity to get to know each other," says Rivière.



Pilot lead Lotten Svensson tells her story

Svensson agrees:

"It's also a great way to test commitment. You have to fight towards a common goal, drag equipment around, sweat and then finally succeed together, to truly know someone. It's easy to stay reasonably pleasant for brief periods of time when you can go home and be grumpy afterwards. But when you eat and sleep together you can't hide that kind of stuff."

At the end of five days and nights of work, prototypes had been designed for multi-functional kitchens, an interactive door helping users to remember things, and a helping hand that can be used to for example lift grocery bags, whip cream or hold a hair dryer.

"The simple solutions are often the best," says Svensson.

Her favorite is the sliding kitchen prototype which enables users to gain easy access to objects by simply sliding movable counters back and forth.

"If it's difficult for you to move around in the kitchen, we have to find a way for the kitchen to move around you," she says.

According to Svensson, elderly people frequently lose their apatite when cooking becomes too energyconsuming and ready-made meals too tedious.

"By designing the right tools we can make it easier for elderly people to keep cooking the food they enjoy," she says.

Senior Designer Rivière prefers the adjustable kitchen designed in modules that can grow and change with your needs.

"Elderly people are often scared to try new things. With the module kitchen you get a chance to build trust over time. People start by buying one piece and then add other pieces as they get increasingly comfortable with the concept. After a while their kitchen starts to reflect who they are," he says. In the future, Svensson hopes to extend the focus of Comfort in Living to also include Comfort in Work.

"We will be working later in life. Many people in their 70s are still professionally active and this trend will only increase. But an older work force will place new demands on the work place. Small things like office lights, the size of keyboards and buttons, the support and flexibility of chairs and desks, will all have to be adjusted accordingly," she says.

She also sees the need for a virtual aging laboratory where members can enter research data that is relevant for the 80 million people that populate the Baltic Sea Region:

"There is a physical aging laboratory at MIT in the United States and most research in this field is conducted in the United States, but that data is not so relevant for the population in our region as our preconditions are quite different from the Americans," she says.

But the area where she sees the most future potential remains the Innovation Camp which she hopes can be developed to become an internationally renowned concept where participants first have to qualify in rounds of national contests to ensure the very best teams take part.

"Here I see that we can really make a name for ourselves and come up with some great products in the process," she concludes.



Design of an adjustable kitchen for elderly people

MarChain – Lightweight Ferries For the Future

Cities have to use their waterways better in order to be sustainable. To prepare for the future of public transportation, the MarChain team is developing a new lightweight ferry design. The goal is zero emissions.

Many big cities in the Baltic Sea Region, as well as in other parts of the world, struggle with transportation congestion. But the MarChain team might just have found the solution.

They are currently designing a ferry type which will be both environmentally friendly and energy-efficient. By using lightweight materials the ferry will be able to travel faster while still consuming less energy than traditional ferries.

"It's not possible to just keep building more highways in our cities. Waterways will have to take some of the load. We see a big market for fuel-efficient and environmentally friendly vessels in our region," says Kerstin Hindrum, head of the MarChain project.

In MarChain, partners from eight countries in the Baltic Sea Region collaborate around maritime issues, such as lightweight structures at sea, alternative fuels and ports as transportation hubs.

In January 2015, new fuel regulations are expected that will limit the emissions of sulphur and nitrogen, among other things. This will affect North America as well as the Baltic Sea Region. When the new legislation is in place, standard oil can no longer be used as fuel for sea transports. Ships will be forced to either use diesel oil which is lighter and typically used to fuel cars, or to install special oil purification plants onboard. Neither of these options are practical which will spur the need for alternative fuels. This, in turn, will lead to an expected 25 percent rise in costs for maritime transports across the Baltic Sea, which will of course affect consumers.

Even small passenger ferries can make a difference in decreasing emissions. By using lightweight material to design energy-efficient ferries, MarChain members hope to both reduce costs and limit emissions.

"For example, vessels that aren't very heavy can be powered by electricity," says Hindrum.

Some modern and fairly environmentally friendly ferries already exist and operate, for example in southern Europe, but those solution cannot simply be adopted by the Baltic Sea Region, according to Hindrum.

"The place where the ferry operates plays an important part in how to best construct it," she says and exemplifies with Göta River in the southwest of Sweden.

"There you have ferries which run every six minutes. This makes it difficult to use electric engines as the time they spend docking is so short that there is no chance to



Kerstin Hindrum, head of the MarChain project

charge the batteries. A ferry that runs a few times a day has more options. Charging at sea often requires dragging such heavy equipment or batteries along that the benefits of the lightweight material is lost," says Hindrum.

These are all challenges that the different member countries have previously tried to solve on their own and from different perspectives.

"Thanks to BSR Stars we've now been given the opportunity to work together and come up with a joint solution. The collaboration within BSR Stars has been extremely valuable for us. We have expanded our network and gained insights about new markets. We've also found partners that we didn't know existed and that have added new dimensions to our work, says Hindrum.

The MarChain team is currently determining the design of the ferry and choosing the environment in which to implement it. During the coming six months they plan to fill potential knowledge gaps through welcoming new regional partners into their network. They hope to start construction of the ferry next summer.

Hindrum thinks having such a tangible project facilitates collaboration:

"It makes it easier to convince companies and researchers to join MarChain. Hopefully the work around the ferries will also result in more spin-offs that other members can run with. After all, that's what innovation systems are all about – generating ideas for members to develop and enhance."

Mobile Vikings – Bridging cultural divides

"Working with ICT innovations I always get the question – what is the next big thing?" says Henrik Lundblad, project leader of Mobile Vikings

For the past few years the Mobile Vikings project has worked with establishing an innovation infrastructure for the Baltic Sea Region. This has mainly been achieved through matchmaking, business roaming agreements and innovation platforms such as Demola.

The Demola platform is an innovation method developed in Tampere where students, companies and researchers work jointly to develop new products and services. Through the Mobile Vikings project it has expanded to become a transnational platform spanning the Baltic Sea Region.

"We introduced Demola in our region in Sweden this spring. For the first time students of the universities in Skåne could work jointly with companies in the region as part of their education. Students have told me it's the best thing they've ever done in school," says Lundblad.

Another success is the business roaming agreement developed by Scandinavian Cluster 55. They have initiated a network of 46 partners in 27 countries across four continents, who have agreed to provide free office space to any member, anywhere in the world, for at least five days.

"We don't need any money, we just need friends, says Philip Stankovski, head of Cluster 55.

"Last week one of our members was in LA using this agreement and he was very pleased with his time there. Some also use this as a way to promote their regions. In one of our offices in the Balkan you even get a secretary and a personal chauffeur who drives you to all your meetings free of charge," he adds.

Lilita Sparane heads up a Latvian IT-cluster participating in the Mobile Vikings project. She sees many tangible results from the project and her cluster's



Henrik Lundblad presents Mobile Vikings at the BSR conference



Philip Stankovski presents his vision

collaboration with Cluster 55 in particular.

"Our members really benefit from the business roaming agreement offered by Cluster 55. One of our companies producing CONEQ sound equalizers had the opportunity to be introduced to Samsung in Asia this way," she says.

Sparane is also very pleased with the outcome of Cluster 55's matchmaking events in Malmö and Lund. Large multinational companies that were due to attend the matchmaking sessions, such as TeliaSonera, Huawei and Panasonic, received detailed profiles of companies in the Latvian IT-cluster ahead of the event. That way they could select beforehand whom they wanted to meet and only SMEs that were of true interest to the corporate giants were persuaded to take the trip.

"Small companies have little time and few resources. It has to be clear to them why they should come and what the potential benefits are. We don't want to mislead anybody," says Sparane.

Once selected for matchmaking, Sparane and others from Cluster 55 helped the companies prepare their pitches.

"Two of our companies have continued the dialogue. There are plans for one company to meet again with representatives from TeliaSonera already in Riga. Let's see what the results will be," she says.

And while Cluster 55 has helped Latvian companies wanting to do business in Asia, Sparane sees the Latvian IT-cluster and other Baltic members as potential bridges to the east.

"We know the language and understand the culture. If our Scandinavian partners have opportunities to bid on tenders in Russia or other eastern countries we can certainly help," she says.

So, what is it then; the next big thing?

"I don't know, but the fact is we don't need to know because we are in the middle of it," says Henrik Lundblad.

BSR Food and Organic Potatoes – the Recipe for Success

Located in Ungurpils, in northern Latvia, is Europe's smallest factory for potato starch. For years it was struggling to survive. Thanks to Ideon Agro Food it is now thriving.

"The only way for this factory to survive was to find a unique niche. So in 2009, with the help of Ideon Agro Food, we decided to give organic production a shot," says Christer Karlsson, Quality Manager of Lyckeby Culinar, the company that owns Aloja Starkelsen, along with several other potato starch factories located in Sweden and the Czech Republic.

Ideon Agro Food is a network of companies, researchers and public players involved in the food industry in the Baltic Sea Region. It is also part of the BSR Stars program. Lyckeby Culinar has been a member of the network for about ten years never expecting that the benefits of membership could be this great.

Organic potato starch requires organically cultivated potatoes, which in turn depend on organic seed potatoes. Through the Ideon Agro Food network, Lyckeby Culinar received help to further develop the special type of seed potatoes required for organic cultivation. The network then helped locate Latvian and Estonian farmers willing to adopt organic farming methods and start cultivating organic potatoes. Finally, EU funding was secured for research relating to market size and potential, as well as training of those interested in becoming organic farmers.

"The farmers see that we have a long-term commitment. Right now we have about ten farmers cultivating potato for our factory and an additional 30-50 hoping to receive training," says Karlsson.

Production started on a small scale, but has increased bit by bit and is now at a level where the demand is higher than the supply. Turnover is about 6 million euro per year.

"We are now the second largest producer of organic potato starch in the world," says Karlsson.

Through the Ideon Agro Food network, Lyckeby Culinar came in contact with Finnish companies also working with organic potatoes.

"We joined forces which made sales a lot easier. Together we had higher credibility," says Karlsson.

Ideon Agro Food has also helped other Swedish companies expand their sales across borders. For example, a small flax seed producer on Österlen found a market in Finland thanks to the efforts of Ideon Agro Food.

"We know Sweden and the region quite well so when someone is looking for something we are often able to assist," says Inger Ahldén, head of Ideon Agro Food.



Lennart Lindahl, Marja-Leena Laitinen, Inger Ahldén, Jukka Lähtenkorva, Andre Veskioja, Dorthe Lynnerup and Kristaps Rocans



Ville Kairamo, the Head of Demola Network and Walter Deffaa, Director-General in DG Regional Policy, European Commission

Demola brings students and companies together

Through the Demola network, students in the Baltic Sea Region help companies save money and develop new, innovative solutions, to real-life problems. So far an astonishing 80 percent of the results have been further developed by companies and new start-ups.

It all started with three guys in Tampere 2008. They wanted to combine students' desire for work experience and business networks with companies' needs for innovative solutions and cost-efficiency. Five years later the concept has spread to five countries linking 25 universities, over 300 companies, and more than 2000 students.

Demola offers university students the opportunity to join multidisciplinary teams tasked with solving real-life business challenges together with partner companies.

"If you are a student interested in building valuable work experience and putting your skills to the test, Demola is for you," says Ville Kairamo, one of the founders and current leader of the Demola network.

Through a single online interface, business challenges are made available to students who can apply to join teams that will attempt to solve the challenges that interest them. In the end, the team owns the project results, but the company that posted the challenge has first bids to purchase the license.

Nokia is one of many companies that has used and benefited from Demola.

"Demola is the leading platform to engage companies, talented students and universities in cocreation. The students always ask: Do you have good challenges for us? So far we've given them 55 real demo cases," says Jukka Saarinen at the Nokia research center in Tampere, Finland.

The work has resulted in new products for Nokia as well as its competitor Ericsson. It has also yielded start-ups, patents and social innovations. In fact, an astonishing 80 percent of the prototypes produced have been licensed by companies.

But sometimes not getting the requested help can also be valuable input for companies.

"If next generation students don't feel that your project is interesting enough that's usually a good signal that you're missing something. Such early "failures" can save lots of money," says Kairamo.

He adds:

"We are not bright enough to say whether something will be a success or not, and we shouldn't. We don't judge, we set the guidelines and let the community decide."

One of his favorite stories is when Demola was approached by a big corporation.

"They asked if we could help them create a new approach for a challenge which at the time cost nearly 100 000 Euro to solve. The target was to cut the cost in half, but in the end the students found a way to solve the problem for only 100 Euro," he says.

What was the solution?

"That's the trade secret," smiles Kairamo.

Faces of the StarDust/BSR Stars team



Saulius Arelis



Rima Dijkstra



Lars Fernvall



Janis Gailitis

Ville Kairamo

Maria Lindbom

Eivind Petershagen

Andris Spulis

Se



Kerstin Hinze



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Karin Nygård Skalman



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Jolanta Dvarioniene



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Tapio Karvonen



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www.bsrstars.se/stardust

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