ScanBalt Health Region (SBHR)

Cross-Sectoral and Transnational Projects for

Innovation in Health and in Life Sciences¹

Flagship Strategy

Priority Area 7 of the Baltic Sea Region Strategy

Project leaders: Mecklenburg-Vorpommern and Lithuania.



¹ The EU BSR Strategy and the Action Plan in its last version

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1. Introduction

The present strategy for ScanBalt Health Region is a step towards implementing the EU strategy for the Baltic Sea Region released June 2009. ScanBalt Health Region is an acknowledged flagship in the accompanying action plan and sets out to be a role model for cross-border collaboration in the region and elsewhere.

The ultimate goals are to assist promoting a knowledge based globally competitive health economy in the Baltic Sea Region; to assist solving the grand societal challenges of health within the region and to play a strong role on global health.

We would like to thank the Governments of Mecklenburg-Vorpommern and of Lithuania for their willingness to assume the role of project leaders for ScanBalt Health Region.

In addition we would like to thank the ScanBalt Health Region partners and the entire ScanBalt BioRegion life science community for their contributions, suggestions and ideas in preparing the strategy and for the encouragements received in the process.

Finally we would like to acknowledge the EU for having established EU's first macro-regional strategy. We strongly believe that this is a very significant step towards a more efficient use of the many institutional, industrial, academic, financial and human resources in our region. The concept of macro-regions should play a key role in EU policies as well as in national and regional policies being a valuable tool in the strive for global excellence.

We hope you will enjoy reading the strategy and that it will attracts you to join the rapidly growing number of partners in the project.

The ScanBalt Health Region Executive Committee September 2010.

Wolfgang Blank, BioCon Valley Leonas Grinius, Lithuanian Biotech Association/Institutte of Biotechnology Bo Samuelsson, Region Västra Götaland Kaare Norum, ScanBalt Academy Peter Frank, ScanBalt

2. Mission

The Countries of the Baltic Sea or Nordic-Baltic region¹ are facing serious challenges and have significant opportunities in public health² and in health economy³ that should be met with transnational collaborations and innovations within both life and health sciences, including health systems, health policies and health technologies.

The mission of ScanBalt Health Region is to set up cross-sectoral and transnational reference projects for collaboration and innovations in both health and in life sciences in order to promote public health on a high and sustainable level and to make the region a globally leading and prosperous Health Region.

This can only be achieved by enhancing the convergence between EU, national and regional policies within e.g. health, research and industry. ScanBalt Health Region shall assist to promote such a convergence.

¹ Both here defined as Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden, Northern part of Germany, Northwestern Russia,

² Public health is "the science and art of preventing disease, prolonging life and promoting <u>health</u> through the organized efforts and informed choices of society, organizations, public and private, communities and individuals" (1920, <u>C.E.A. Winslow</u>).

³ Health economics is a branch of <u>economics</u> concerned with issues related to scarcity in the allocation of <u>health</u> and <u>health care</u>

3. Strategic challenges and opportunities

Growing challenges to Health

The growing challenges to the health of the population in the EU member states are well described in the white paper "Together for Health – A Strategic Approach for the EU 2008-2013"⁴. The 3 major threats are:

- 1. Demographic changes including population aging are changing disease patterns and putting pressure on the sustainability of EU health systems.
- 2. Pandemic, major physical and biological incidents and bioterrorism pose potential major threats to health.
- Recent years has seen a great evolution in healthcare systems in part as a result of the development of new technologies revolutionizing prediction, prevention and treatment of illness.

The white paper stresses the need to incorporate health concerns into all EU policies, to reduce health inequities and to play a strong role on global health; to improve health promotion and on improving health information. The white paper underlines the need for the EU, member states and stakeholders to achieve tangible real results.

It is both a challenge and opportunity for the Region to demonstrate how these intentions can be put into practice at the macro-regional level serving as a heaver for the entire EU and the EU Northern Dimension policies.

Health and Wealth are linked

Health contributes to wealth and investments in health foster long term growth and sustainability of economies². A healthy population is necessary for the economic productivity and prosperity, and wealth on the other hand supports better health.

Health care strongly and directly benefits from research in life sciences and technological development, but it also triggers such a development, an example of a 'business driving technology'.

⁴ Together for Health – A Strategic Approach for the EU 2008-2013 23.10 2007 COM (2007) 630 final.

Therefore, the use of life sciences and biotechnology for the development of drugs, vaccines, genome-based diagnostics and innovative therapies, as well as the applications of "nanomedicine" and health technologies, represents a huge potential for innovation and growth in the Region.

In addition innovations within health care may assist to promote the integration between remote areas and cities by applying the rapid technological developments within telemedicine. It also allows to extract benefits from cross-border collaborations by more effective use of scarce resources and the variety of competencies.

However, public health is more than diagnostics, medicines, therapies and technologies. It also depends on e.g. prevention, a healthy environment and on healthy food - plus last but not least on appropriate health systems governed by efficient health policies.

A strategic choice

With more than six million employees, Health Economy constitutes one of the most significant sectors of the economy in the EU (European Commission 2002). The Health Economy accounts for up to 15% of overall employment and it provides more jobs and generates more income than many "traditional" sectors.

The Health Economy sector – A multitude of products and services

Health Economy encompasses innovative products and services in medicine and biotechnology, out-patient and in-patient health care, as well as in upstream services and supply industries together with areas related to health like sport, leisure, spa and health tourism, environment and food.

Health Economy is a strategic choice of the Region towards a knowledge-based sustainable economy able to meet some of the grand societal challenges. This type of economy has proved to be more resistant to fluctuations. Further development of the Health Economy will provide the Region with the capability to compete with for example Asia and North America and assists to counter the rising expenditures in public health.

A competitive Health Economy

The sustainable growth of Health Economy in the Region is facing opportunities and challenges within for example health preservation and prediction, prevention and treatment of diseases, and fighting of the major health threats. The aging population together with negative trends in demographic development may result in the shortage of qualified workforce and brain drainage due to emigration as motivated and talented individuals will move for the best opportunities.

Disparities and differences exist in the economic power of the countries in the Region. Innovative SMEs are unevenly distributed and are especially lacking in the Baltic countries and Poland, due to the shortage of risk willing financing, while the large industries, like pharmaceutical companies, are mostly located in the Nordic countries and North Germany.

Weak trans-national and trans-institutional coordination of the whole innovation chain impedes generation of innovative ideas by research in life sciences and/or clinical practitioners. That obstructs development of innovative technologies by SME's and slows down transfer of innovative products and services to health care providers.

Furthermore, insufficient commercial exploitation of ideas and inventions from health care practitioners and/or research organizations is accompanied by a lack of experienced teams to realize proof-of-concept, as well as lack of understanding of the market opportunities and exit possibilities. If these basics requirements are unfulfilled, public & private financing becomes unavailable.

Scarcity of early financing for highly innovative ideas blocks development of innovations and growth of start-up companies. Procurement practices hinder SME access to the regional health care market. As result, opportunities to promote regional economic development and to reduce healthcare expenditures by improving public health service are not exploited efficiently.

Shared vision and enhanced coordination

The Region has a major opportunity in Health Economy by establishing a shared vision of what is at stake and with common objectives and an accompanying effective coordination.

The opportunities and challenges have to be addressed by more effective coordination and collaboration between policies, health systems and health technologies in actions between regions, countries and the EU.

Competitiveness Council of the European Union: Need of an ambitious and integrated Strategy for Innovation

Source: The Research and Industry Ministers want to provide Europe with an ambitious and integrated strategy with regard to innovation; Belgian EU Presidency, 15 July 2010, <u>www.eutrio.be</u>

The Competitiveness Council of the European Union is currently discussing the need for a new type of growth where the engines of growth are knowledge and innovation and less the exploitation of natural resources.

The Competitiveness Council have identified a number of obstacles which need to be removed. Among the obstacles are fragmentation, dissemination, counter productive competition between member states, lack of risk willing financing, shortage of researchers and qualified scientific and technical staff, lack of training and innovation culture.

The Competitiveness Council argues for the urgency of improved convergence between research and innovation policies conducted by the member states and the one conducted by the Union. They conclude that it will not be possible to meet the grad societal challenges without joining forces.

Convergence of Policies

To benefit from the Region's opportunities and meet the challenges convergence of policies and legislation and regulation pertinent to health care is a key issue. Implementation of a health innovation strategy for the region requires coordination between states and regions given their responsibilities in health and related fields at the national, regional and local levels. This should interact and support the EU's efforts for the member states as outlined in for example the EU white paper "Together for health" (2008) and the intentions of the Competitiveness Council of the European Union.

The role of ScanBalt Health Region is to promote the Region as a model for convergence of policies by establishing successful cases and concrete examples along with assisting to promote the necessary dialogue between decision- and opinion makers. A concrete issue is that fragmented systems of research in life sciences and innovation show weak internal links and low level of cooperation between actors as is also the case throughout the EU. ScanBalt Health Region may assist to reduce such fragmentation.

Cultural differences and various competence levels and orientations exist between target groups within the sectors of Health Economy in the Region. This is a significant opportunity if they are combined in complementary set-ups where these differences become an advantage due to synergistic effects. Convergence of policies should not neccesarily aim to remove such differences but rather seek to extract the best and allow for the free transfer of knowledge (The 5th freedom), human, financial and industrial resources.

Health Economy, as a social and economic driving factor, deserves a broad public debate about public and private financed social and health care systems. These issues must be addressed with great care and sensitivity. The relevant responsibilities fall across a broad range of policies and actors and it should be an aim to promote a sustainable platform for the necessary dialogue between them.

4. Goals and Objectives

ScanBalt Health Region provides a platform for launching cross-sectorial and trans-national projects and initiatives aimed at promoting economic development and public health and reducing disparities in the Region by fostering cooperation within health economy and life sciences among the countries in the Baltic Sea Region.

To achieve this goal, ScanBalt Health Region aims to overcome and reduce cross-sectoral and trans-national obstacles to promote more efficient health care build on innovative products and services, and to strengthen relevant fields within research and education. Some of the concrete objectives are:

- Sustainable development of Health Economy is an overarching objective of SBHR. To achieve this objective, the approach, as proposed in the "Smart Growth Innovation Agenda" of the ScanBalt (EU FP 7, Bridge-BSR) will be used. The "smart" growth concept is based on the integrated use of economic, social and environmental policies, and on the advanced cluster collaboration.
- Advancing quality of life, sustainable regional economic development and eco-friendly innovation through knowledge formation, education, technology transfer and innovation within life sciences.
- Human capital building for research and technology development in the state-of-art health and life sciences.
- Networking with centers of excellence in the ScanBalt BioRegion to train and attract talent, and to facilitate the mobility of people and ideas (Fifth Freedom).
- Promotion of positive trends in demographic development by attracting young people and by improving life conditions for those staying in the region, including better elder care.
- Assisting to lever differences in life expectancy throughout the Region by promoting best practices and standards for prevention and health care.
- Upgrading and modernizing infrastructure in health and life sciences in line with emerging thematic priorities in the field.
- Stimulating the establishment and growth of small and medium enterprises and creation of new jobs.
- Inducing established organizations in the region to develop wide cross-border collaborations based on regional clusters and competencies.
- Fostering development of the ScanBalt Health Region as a role model for the EU and beyond.

5. Values

ScanBalt Health Region strictly adheres to the founding principles of the European Union, such as liberty, democracy, respect for human rights and fundamental freedoms, and the rule of law. These values are based on fundamental rights relating to health and recognition of health as a global public good.

The Flagship aims to support the objectives of the EU Health Strategy encompassing common EU values, such as equity, participation and empowerment of citizens, and transparency.

As life sciences and related social sciences have a major potential to contribute to health, welfare and prosperity, the application of their achievements often present dilemmas to society. We strongly believe that exploitation of life sciences and promotion of growth must be based on the concept of sustainable development and a dialogue between science and society. ScanBalt Health Region will promote such a dialogue and development.

6. Actions

The actions of ScanBalt Health Region will follow three major lines:

- 1. Install and maintain a platform for communication and networking of the actors in Health Economy:
 - Develop a suitable working structure based upon the existing bottom up ScanBalt BioRegion network.
 - Continually identify and motivate partners for participation in the further SBHR strategy building process.
 - Form strategic interest groups (in a triple helix format) for the focus areas to identify, motivate and recruit partners and interests.
 - Set up an external advisory structure based on the ScanBalt Academy.
 - Strengthen communication between the advisory structure and strategic interest groups (workshops, strategy meetings, etc.).

- Promote policy development within regional, national and international issues related to SBHR.
- Involve regions to promote convergence of policies

2. Develop, disseminate and implement an Innovation Plan of coordinated actions for the Baltic Sea Region .

• Prepare a draft of SBHR Innovation Plan based on contribution from the SBHR task force and partners and the ScanBalt BioRegion Network

• Ensure a thorough hearing of the SBHR Innovation Plan among relevant stakeholders and target groups.

• Discuss the SBHR Innovation Plan at regional workshops throughout the BSR and with the EU.

• Promote integration of the Plan's measures into regional, national and supra-national s strategies and policies.

• Promote coordination with EU Northern Dimension policies

• Promote establishment of task forces and consortia, which share SBHR mission and values, to target specific issues and bottlenecks in a coordinated manner.

• Disseminate results from implementation of the SBHR Innovation Plan throughout the EU and beyond.

3. Support the setup of cross-sectoral projects for innovation in health and life sciences:

- Disseminate ideas and communicate on all levels: (i) within the Flagship, (ii) with customers and partners and (iii) with citizens.
- For health care providers and SME managers, enhance their innovation competencies, business skills and detailed knowledge of health care innovation process.

- For life scientists and health care practitioners, provide tools for licensing and knowledge transfer; financing and verification of new ideas; marketing, sales and procurement to start innovative SMEs.
- Facilitate SME access to the health care market by promoting business development via matchmaking and by enabling SMEs to join R&D projects, as well as pre-commercial procurement and their engagement in the procurement.
- Implement the proposal of an idea competition for health care practitioners to create new SMEs and enable SME growth through linkage to financing and business development.

7. Appendix

Basics about ScanBalt Health Region

The ScanBalt Health Region (full title "Cross-Sectoral and Transnational Projects for Innovation in Health and in Life Sciences") is an acknowledged flagship project within the European Union Strategy for the Baltic Sea Region⁵.

ScanBalt Health Region serves as an umbrella for a multitude of coordinated activities applying to shared visions, values and strategies for the development of the region and utilizing a common communication structure. Otherwise the individual activities act independently. This is a bottom-up approach combined with a top-down advisory structure which has been developed, tested and applied for ScanBalt BioRegion since 2001.

It ensures specific themes to be dealt with in depths by a multitude of groups while still referring to an overall strategy and using existing structures ensuring coordination and efficiency.

Governance

Formal project leaders of ScanBalt Health Region are BioCon Valley[®] GmbH, Greifswald, and Lithuanian Biotechnology Association/Institute of Biotechnology, Vilnius, based on mandates from respectively the German and Lithuanian governments. They together with Västra Götaland Region, Sweden, ScanBalt Academy, Norway and ScanBalt fmba, Denmark, form the ScanBalt Health Region Executive Committee (ExCo).

Participation of ScanBalt and ScanBalt Academy ensures the representation of ScanBalt BioRegion, its clusters, public authorities, universities and companies, which provides access to leading competencies, knowledge plus decision and opinion makers.

The ScanBalt Health Region ExCo acts as an open task force in order to catalyze action and promote coordination. ExCo is currently composed of:

Leonas Grinius, Lithuanian Biotechnology Association/Institute of Biotechnology

Wolfgang Blank, BioCon Valley

¹ The EU BSR Strategy and the Action Plan in its last version

Bo Samuelsson, Västra Götaland Region Kaare Norum, ScanBalt Academy Peter Frank, ScanBalt Daily management and operations are executed by the ScanBalt secretariat.

Reached Milestones and next steps

• June 2009: SBHR proposed in the "Smart Growth" Innovation Agenda for the Baltic Sea Region (released as part of the Bridge-BSR EU FP 7 project). Download the agenda here http://www.scanbalt.org/projects/bridge+bsr/reports

• June 2009: Publication of the Action Plan of the EU Strategy for the Baltic Sea. "Health Region" listed as a flagship project build on the ScanBalt BioRegion model. Download the Action Plan here http://ec.europa.eu/regional_policy/cooperation/baltic/index_en.htm

 August 2009: Set-up of a slim and lean SBHR task force to catalyze action and promote coordination composed of BioCon Valley (GE) and Lithuanian Biotechnology Association/Institute of Biotechnology (LT) - both having government mandates - Västra Götaland Region (SE), ScanBalt (ScanBalt BioRegion) and ScanBalt Academy (external advisory body to ScanBalt BioRegion).

• October 2009: Presentation and discussion of SBHR at 8th ScanBalt Forum in Kalmar, approx 200 participants.

• October 2009: Presentation and discussion of SBHR at ScanBalt General Assembly and ScanBalt ExCo in Kalmar.

• November 2009: Acknowledgment of SBHR by EU leadership

• January 2010: Launch of the SBHR web site in connection with <u>www.scanbalt.org</u>, see <u>www.scanbalt.org/projects/scanbalt+health+region</u>

• January 2010: 1st regional round table (Tartu) with representatives of public authorities, industries, hospitals, universities and science and technology parks. Approx. 25 participants.

• March 2010: 2nd regional round table (Gdansk) with representatives of public authorities, industries, hospitals, universities and science and technology parks. Approx. 25 participants.

• March 2010: Discussion of SBHR in ScanBalt ExCo in Gdansk.

• March 2010: "HealthPort" project application, focused on collaboration between SME's and Health Care providers, together with 9 partners and 15 associated partners submitted to the Baltic Sea Region programme. Coordinator: ScanBalt.

• April 2010: Winners of a SBHR logo competition announced by PM of Mecklenburg-Vorpommern Erwin Sellering during his visit to Denmark and Sweden

• April 2010: 3rd regional round table (Lund) with representatives of public authorities, industries, hospitals, universities and science and technology parks. Approx. 15 participants

• April 2010: Project "Eco4Life", focused on environmental issues within the Flagship's framework, is approved in the South Baltic programme. Coordinator: BioCon Valley.

• June 2010: SBHR Information and project workshop in Brussels to strengthen awareness of the EU Baltic Sea Region strategy and SBHR.

• June 2010: Discussion of draft SBHR strategy in ScanBalt ExCo

• June 2010: SBHR Kick-off meeting in Brussels at the seminar "Realising the EU strategy for the Baltic Sea Region through Nordic-European Synergies in collaboration" organised by the informal Baltic Sea Group (MEP), DG Regio and Nordic Council of Ministers.

June 2010: Memorandum of Understanding signed by the SBHR partners to develop and implement a strategy for SBHR.

- September 2010: SBHR part of the press tour "Healthy Future" for 15 invited journalists.
- September 2010: The SBHR strategy launched during the press tour "Healthy Future".

• September 2010: 1st stakeholder meeting to be held in Tallinn as part of the 9th ScanBalt Forum. See <u>www.scanbaltforum.eu</u> • September 2010: Discussion of SBHR at ScanBalt General Assembly and ScanBalt ExCo

• September. 2011: 2nd stakeholder meeting to be held in Rostock as part of the 10th ScanBalt Forum which also celebrates 10 year anniversary for the round table organised by BioCon Valley and Medicon Valley Alliance leading to the formation of ScanBalt BioRegion.

Example of focus areas

The following focus areas for cross-sectoral projects for innovation in life sciences and health are so far identified in dialogue with ScanBalt Health Region stakeholders (see below). The list of focus area is constantly being updated as the dialogue with potential partners and stakeholders proceeds.

- **Convergence of Policies:** promote dialogue to and between national, regional and local authorities and opinion makers.
- **Prevention:** promote a unified prevention approach towards addressing tobacco, poor diet, alcohol and lack of physical activity to prevent chronic diseases and protect the future health
- Innovation & Cooperation in Health and Life Sciences: exploit competencies and overcome challenges by joining forces.
- Healthy Ageing/Demographic Development: tackle demographic development and ensure better life.
- E-Health: deliver health care everywhere and exploit regional spearhead competencies.
- **Chronic Care:** tackle raising expenditures and ensure better life by introducing new technologies.
- **Health Tourism:** *Promote introduction of innovative new concepts and assist to strengthen branding.*
- **Financing:** *identify and develop models, promote a Baltic Sea Region Fund or network for research, innovation and education.*
- Healthy Environment & Population: foster healthy environment in the Region.
- Healthy Nutrition: promote healthy nutrition habits.
- Individualized Medicine: innovative technologies for disease diagnosis and prevention.
- High-throughput Approaches to Study Human Diseases: More efficient drug development

- **Biomaterials:** *Promote the development and application of biomaterials*
- Strategic communication: based on established organizational platforms.

The development of focus areas is a continuous process as dialogue with ScanBalt Health Region stakeholders is a constant.

Partners (as per September 2010)

Task Force Partners:

BioCon Valley[®] (GE)

Lithuanian Biotechnology Association/Institute of Biotechnology (LT)

ScanBalt Academy (NO)

ScanBalt™ fmba (DK)

Region Västra Götaland (SE)

BioBaltica (PL)

Turku Science Park Itd (FI)

Steinbeis-Forschungszentrum Technologie-Management Nordost (DE)

Medical University of Gdansk (PL)

University of Gdansk (PL)

Medical University Center Groningen (NL)

Supporting Partners:

Healthy Ageing Network Northern Netherlands (NL)

National Contact Point in Poland (PL)

Tartu Biotechnology Park (EE)

Further reading

Background documents (alphabetical order):

Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee and the Committee on the Regions concerning the EU strategy for the Baltic Sea Region, Brussels 10 June 2009 COM(2009) 248 final,

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Peter Frank: More than the Sum of Their Parts (Interview,) EMBO Rep. 2006 February; 7(2): 133–136.

Peter Frank: Decentralization the Key to ScanBalt, Nature Biotechnology, Vol 23, No 10, October 2005

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