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Mapping of National Cluster Policies and Programmes in the Baltic Sea Region

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MAPPING OF NATIONAL CLUSTER POLICIES AND PROGRAMMES IN THE BALTIC SEA REGION

Summary and Analysis of National Consultations

PART ONE

June 5, 2007

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PART ONE: BRIEFING/DISCUSSION PAPER

Introduction

Clusters and innovation are two 'buzzwords' that we all have heard thousands of times over the last several years. Clusters and clustering processes are generally seen as fertile environments for innovation. Increasingly, the public sector is supporting cluster analysis, clustering processes, and cluster programmes. In the OECD report *A Review of National Cluster Policies: Why are They Popular Again?,* several reasons for this trend were given:[1]

- There is strong quantitative evidence that many industries remain concentrated in specific regions, and that firms and research generators in proximity can out-perform their counterparts located in less rich environments. Countries are seeking to strengthen or replicate the success factors that have encouraged the emergence of the concentrations of innovative firms in regions.

- Countries are looking for instruments that can help maintain employment and promote restructuring and adaptation in other sectors.

- Trends in regional policy, science and technology policy, and industrial/enterprise policy are all promoting the importance of regional actors working effectively together with a goal of greater regional and national competitiveness as well as increased innovation. This increasingly shared perspective is also encouraged by the belief that clusters are a convenient and pragmatic "organizing principle" by which to focus resources and build partnerships.

In brief, knowledge produces results the more it is shared. New ideas (and applications of research/technologies) emerge more quickly when 'great minds' meet. Sometimes, the 'meeting of great minds' needs to be facilitated. This is a role that the public sector can (and should) take on. And so, more and more often, it does.

The BSR InnoNet is one of four InnoNets focused on cluster development. There are two primary goals of the BSR InnoNet:

1. To establish a joint conceptual framework for cluster policy formation, evaluation and operational activities across national borders in the Baltic Sea Region.

2. To establish one or more joint innovation programme(s) (focused on cluster development) among partner countries in the Baltic Sea Region.

During the **first phase** of our three-year project, the **objective is to confirm a common** perspective – or **baseline** – of the current policies/programmes and policy formulation processes in the region in order to (in later phases) define common/joint strategic priorities, activities and frameworks. The specific goals of this phase are to:

- identify and analyse innovation cluster programmes with similar goals which support cluster development and explore possibilities for future mutual schemes
- identify mutual complementarities between national activities and programmes

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[1] OECD (2006), Public Governance and Territorial Development Directorate, Territorial Development Policy Committee, GOV/TDPC(2006)12, p.5.

- identify new opportunities and initiate new interdisciplinary activities
- identify policy relevant strongholds of countries

European TrendChart reports, national strategic documents, 'country briefings' and individual experience form part of the baseline. However, in order to create a more detailed view on the various approaches to cluster development, it was important to conduct national consultations. The 'BSR InnoNet team' pursued a consistent approach in each of the ten countries – conducting meetings with ministries, implementing agencies and, in some cases, clusters. A common set of questions was posed in all countries.[2]

The questions aimed at gaining clarity regarding four main areas:

1. The **institutional structure**, including the organisations involved, the process and division of responsibilities for strategy definition, programme design, financing, implementation and evaluation

2. The current **policy priorities** for innovation/industrial policy in general, and for cluster development more specifically

3. The current activities or **programmes** underway (on regional or national levels) which are relevant to cluster development

4. The current 'state of cluster **analysis**' – what types of analysis exist and how/if they are used as input to the policymaking process

Summary notes were drafted for each of the ten countries, and sent back to the national BSR InnoNet participants for their review and input.[3] Finally, the leaders for work packages 3 & 6 conducted a comparative analysis of these national summaries – resulting in this report. The report[4] is structured in three main sections: [1)] institutional context; [2)] current situation relative to the three areas mentioned above: strategic priorities, programmes and analysis; and [3)] overview of needs.

The purpose of this paper is to present a summary of national consultations – providing a common baseline for future work within the BSR InnoNet. The paper also presents an analysis of the common needs in the area of cluster development – providing a basis from which the objectives of a potential joint programme(s) can be defined. This paper was written as input to a joint working group meeting held February 13-14, 2007. Additions and revisions have been made to reflect discussion and conclusions from this meeting.

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[2] The interview guide can be found in Appendix I. The schedule of the national consultations can be found in Appendix II.

[3] The (ten) national summaries are included in the "Mapping of Policies and Programmemes in the BSR - Part Two".

[4] The current version of this report is a project deliverable for Phase One. The document is still subject to comments and revisions. A 'version two' of this report – adapted to suit an external audience – may be prepared as an input to the European Cluster Conference (to be held January 22-23, 2008 in Stockholm).

Institutional Context

In order to design a framework for developing and launching trans-national programmes, it is important to understand the current policymaking processes. Therefore, one of the objectives of the national consultations was to understand the organisational structure and division of responsibilities for policymaking in each of the ten BSR countries. An overview of the policymaking responsibilities is presented in Table 1 (on the next page).

A number of themes are interesting to note in this context:

- the overall system of innovation policy governance
- the level of cooperation/policy integration between ministries
- the level of cooperation or division of labour between ministries and innovation agencies
- the division of labour between national and regional levels
- the significance of EU financing and its impact on policy and programme design

The overall system of innovation policy governance[5]

Most countries have a governance system where one or several national ministries have responsibility for development of overall innovation policy strategies (and, in some cases, programmes), and one or several implementing agencies have responsibility for implementation of national programmes.

In two cases (Germany and Poland[6]), implementing agencies are selected on a competitive basis. In one case (Lithuania), there is no clear structure or division of responsibilities for implementing agencies. This situation presents a challenge to communicating policy initiatives and launching programmes in a way that individual companies, research institutes or universities can understand how they can participate in these activities.

The consequence for the BSR InnoNet is that there is no given 'home' (i.e. the same organisation in every country) for implementing future trans-national innovation activities.

The level of cooperation/policy integration between ministries

In many countries, the responsibility for innovation policy is shared between two ministries – those responsible for industry/economy and those responsible for education/research. In some countries, additional ministries are involved in innovation policy formulation – which is typically structured in the form of a national council for science and technology policy. Traditionally, if two ministries share the responsibility for innovation policy, there is an attempt to divide the spheres of activity. This typically results in the development of different innovation programmes under the responsibility of different ministries.

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[5] A more detailed review of national innovation governance systems is provided in the European TrendChart's country reports. See http://trendchart.cordis.lu/tc_country_pages.cfm.

[6] In Poland, the competitive selection of implementing agencies occurs only on the regional level.

Table 1: Policymaking Responsibilities in the BSR Countries

POLICYMAKING RESPONSIBILITIES / BSR COUNTRIES	Innovation Strategy Development	Programme/ Activity Design	Financing	Implementation	Evaluation	Comments
Denmark	Regional Growth Forums or Ministry of Economics and Business Affairs (for industry-focused policies)	Regional Growth Forums or National Agency for Enterprise and Construction	Regional Councils or Ministry of Finance	organizations contracted by Regional Growth Forums or National Agency for Enterprise and Construction	Regional Growth Forums or National Agency for Enterprise and Construction	There is currently no national programme in the area of cluster development; cluster development activities are a part of regional growth strategies.
Estonia	Ministry of Economic Affairs and Communications	Ministry of Economic Affairs and Communications	Ministry of Economic Affairs and Communications, with government approval	Enterprise Estonia	Enterprise Estonia	There is currently no programme targeted at cluster development. The design of a national programme is planned for 2007.
Finland	Science and Technology Policy Council (STPC) with the Ministries of Interior, Trade and Industry and Education	Ministry of Interior (together with the Ministry of Trade and Industry), Tekes and Sitra	Ministry of Interior, Ministry of Trade and Industry, Tekes and Sitra	Ministry of Trade and Industry (together with Ministry of Interior and Tekes), Tekes and Sitra	Ministry of Interior (and Ministry of Trade and Industry, and Tekes)	Both the Ministries (in collaboration) and Tekes have national programmes in support of cluster development.
Germany	Ministry of Economics and Technology and the Ministry of Education and Research	National or Regional (bundesländer) level ministries	National or Regional (bundesländer) level ministries	National or regional-level implementing agencies (on a competitive basis)	National or regional-level implementing agencies (on a competitive basis)	Financing from structural funds is managed by the regional level. A larger portion of cluster development activities are managed and financed on a regional level.
Iceland	Science and Technology Policy Council	Ministry of Industry and Commerce and the Ministry of Education, Science and Culture	Ministry of Finance	Rannis or IceTec	Rannis or IceTec	In a practical sense, cluster development activities are planned and implemented on the regional level (through the growth agreements). Some national-level activities are led by the Federation of Icelandic Industry.
Latvia	Ministry of Economics (Dept. of Entrepreneurship and Industry)	Ministry of Economics, in cooperation with LIDA	Ministry of Economics and Ministry of Finance, with approval by Cabinet of Ministers	LIDA	LIDA	There is currently no programme targeted at cluster development. A national programme has been drafted, and is planned to launch in late 2007/early 2008.
Lithuania	Ministry of Economy and Ministry of Education and Science	Ministry of Economy and Ministry of Education and Science	Ministry of Finance	Lithuanian Innovation Centre (or others, see comment)	Lithuanian Innovation Centre (or others, see comment)	A national programme has been drafted, and is planned to launch in 2007. The structure of implementing agencies is a concern; input on institutional governance structures for cluster programmes is desired.
Norway	Ministry of Trade and Industry, in collaboration with four other ministries	Innovation Norway, Research Council, and SIVA - in collaboration with the Ministries	Innovation Norway	Innovation Norway	Innovation Norway	There is a functioning collaboration between multiple ministries and multiple implementing agencies in all stages of the policymaking process.
Poland	Ministry of Economy and Ministry of Science and Higher Education or the regional Marshall's Office	Ministry of Economy and Ministry of Science and Higher Education or the regional Marshall's Office	Ministry of Regional Development or regional Vovoidship	PARP or regional implementing agencies (on a competitive basis)	PARP or regional implementing agencies (on a competitive basis)	There is increasing collaboration between the Ministry of Economy and the Ministry of Science and Higher Education - who have jointly-developed and financed a new cluster development programme (currently piloted).
Sweden	Ministry of Enterprise, Energy and Communication	VINNOVA and NUTEK (and ISA with Visanu)	VINNOVA and NUTEK (and ISA with Visanu)	VINNOVA and NUTEK (and ISA with Visanu)	VINNOVA and NUTEK (and ISA with Visanu)	The Ministry, VINNOVA and NUTEK operate relatively independently of one another - based on mutual trust. There is a desire to rationalize the system of governmental agencies - and link them closer to the regions.

During our national consultations, we noticed the trend to integrate policy/programme development (and financing) between multiple ministries – in order to address the area of cluster development. This is being discussed in Lithuania, and a new (inter-ministerial) programme is being piloted in Poland. In Finland, the "new" Centres of Expertise programme (designed, financed and implemented by the Ministry of Trade, and Industry and the Ministry of the Interior) is already well underway. In Norway, several ministries and implementing agencies have been involved in the design of both the Arena and Centres of Expertise programmes. However, financing and implementation is managed by only one organisation – Innovation Norway.

This trend of 'inter-ministerial programmes' illustrates a potential model for shared financial responsibility for a future trans-national initiative. It also illustrates the need to anchor future proposals with multiple ministries in each country.

The level of cooperation or division of labour between ministries and innovation agencies[7]

For the most part, there is a clear division of labour between ministries and innovation agencies. Ministries are responsible for innovation strategy development, programme design and financing proposals; whereas innovation agencies are responsible for implementation and evaluation. There is, of course, strong collaboration between ministries and innovation agencies – particularly in the area of programme design.

This 'generalized model' does not hold in the case of Finland, Norway and Sweden, where Tekes, Innovation Norway and VINNOVA/NUTEK (respectively) can design, finance and implement programmes independently of the ministries.

This points out the need for the BSR InnoNet project to pay attention to the different 'divisions of labour' that exist in the countries – and include the appropriate organisation for the different activities (e.g. Innovation Norway, rather than the Ministry of Trade and Industry, should be involved in trans-national programme design activities).

The division of labour between national and regional levels

There is a logical division of labour between national and regional levels in the two largest countries in the BSR: Germany and Poland. In these cases, there are both national and regional-level activities which facilitate cluster development. National-level programmes are aimed at supporting 'national strongholds' or networking activities between clusters in multiple regions.

In other countries, as well, there is a division of labour between the regional and national levels. Denmark and Iceland provide two (somewhat different) examples of this – with regional growth forums and regional growth contracts. Finland and Norway have also employed clustering processes focused on regional development.

These divisions of labour highlight the different types of strategic objectives with cluster development activities. On the one hand, clustering processes can be used for regional

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[7] See European TrendChart Background Paper on *A European Innovation Agency? – How to improve innovation policy governance in Europe:* http://trendchart.cordis.lu/reports/documents/Workshop_Background_Paper_1_2006.pdf for an overview on this topic (at European level).

development purposes. On the other hand, clustering processes can be used to further strengthen national strongholds – and support internationalization processes.[8]

The significance of the European Union and its impact on policy and programme design

One of the most important policy-guiding documents is the revised Lisbon agenda. This holds especially true in the areas of innovation policy, industrial policy and regional policy – which are the most relevant fields of interest when discussing innovation and cluster policies, analyses and programmes in the BSR context. Examples of this are the Community Strategic Guidelines regarding the ERUF, but are also encompassed within the new FP7 programme and the CIP of the EU. The programme portfolio is presented in the chart below:

DG Enterprise and Industry & DG Research	7th FP €54.6 billion	CIP €3.6 billion	TENs €8.1 billion
DG Regional Policy	Cohesion Fund and Structural Funds €307.6 billion		

On an institutional level, the three DGs are in much closer cooperation today (than previously), and this is reflected in several of the BSR countries on the ministerial level. One could therefore argue that innovation and cluster development policies – as vehicles for competitiveness – demand an holistic approach to achieve efficiency and impact. The policy and programme portfolio have, over time, had a strong impact on policy formulation and implementation in EU countries – at both national and regional levels. The new paradigm of innovation policies has inspired (and in some cases forced) countries and regions to renew and develop both policies and programmes. An example of this is the ERUF, where innovation and clusters are put at the heart of the matter.

During national consultations, we understood that structural funds are often used to help develop linkages (clustering processes) between industrial and research sectors, or to develop regional innovation systems. However, there was a bit of confusion expressed regarding state aid rules and the limits of using structural funds for cluster development. There were also questions on which funds can be employed for trans-national cluster development activities.

This highlights the need to gain clarity on the EU portfolio. We need to research and understand the different EU (Inter-Reg and other programme) funds available for trans-national activities.

Overview of Current Situation

During national consultations, another set of questions focused on understanding the current situation with respect to strategic priorities/policies, programmes and other relevant activities

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[8] See the typology of existing policy strategies in the next chapter.

supporting cluster development, and analysis.[9] A comparative analysis of these three areas is presented in the sections that follow.

Strategic Priorities/Policies

Before designing any innovation programme, it is important to understand the strategic priorities which the programme should address. In order to formulate joint (BSR-wide) strategic priorities – or objectives – for a trans-national innovation programme, a good starting point is a comparative overview of the strategic priorities relevant to cluster development on a national level. Table 2 (on the following page) provides a summary of these.

In general, cluster policies are viewed as one of the many instruments of industrial policy – and are typically integrated into national and/or regional innovation strategies. Most often, policies to support cluster development are not called cluster policies – but rather are referred to as facilitation of networks, 'triple helix linkages' or regional innovation systems. Whatever they are called, these policies can be employed to fulfill a number of objectives – on both regional and national levels. A comparison of national priorities highlights four common themes that cluster policies address:

- the desire to identify regional and/or national 'positions of strength' in order to ***better target public support and improvements to supporting framework conditions***

- the goal of ***strengthening 'triple helix linkages'*** (linkages between public, private and academic/research spheres) ***within leading sectors/clusters*** on regional and national levels

- the target of ***facilitating inter-sectoral cooperation*** and identifying new areas for growth on regional and national levels

- the ambition to support leading clusters in ***establishing international linkages*** – forming networks of clusters in order to strengthen global competitive positions

In many countries, there is an increasing demand to prioritize among innovation support mechanisms – targeting those specific activities which have the greatest impact. Particularly on the regional level, analysis of industrial sectors/clusters helps to identify 'positions of strength'. Regional/national governments can then try to understand what helps or hinders innovation for these sectors/clusters – and develop ***better-targeted strategies for improving framework conditions***.

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[9] These three areas mirror the three working groups within the BSR InnoNet.

Table 2: Policy Priorities (relative to cluster development) in the BSR Countries	
BSR COUNTRIES	**POLICY PRIORITIES**
Denmark	- identify **national 'positions of strength'** (through productivity data) and those framework conditions which have a positive impact on performance - help regions better understand which are the drivers of growth in their geography in order to **target activities more specifically to the needs of** their **'regional strongholds'**
Estonia	- cluster support measures will focus on activities which support the uptake of prioritized key technologies (ICT, Biotech, Materials) and which address key socio-economic challenges (environment, energy, security, healthcare) - help strengthen 'triple helix linkages' within and between particular sectors - **in a trans-national context** - in order to be more competitive on the global market
Finland	- promote internationally high-level regional-based knowledge clusters and **trans-national interaction between leading centres and actors** - create a favourable business environment for businesses and strengthen innovation dynamics; intensify cooperation between public and private providers of innovation services
Germany	- 'seamless' innovation policy (with greater integration of research promotion and sectoral policy activities) - **support 'triple helix linkages'** (where companies' needs are the drivers of research) on both a regional and national level
Iceland	- encourage horizontal policy initiatives in order to strengthen 'triple helix linkages' and national, knowledge-based growth - employ clustering/cluster policies as an instrument to **strengthen the global competitiveness of sectors** (and encourage the development of national networks of clusters/merging of 'regional clusters')
Latvia	- cluster policy is an instrument of industrial policy; facilitation of clusters will help fulfill the goal of technological excellence and flexibility of companies - develop new forms of cooperatives and cooperation among manufacturing, supplying and service companies - **facilitate two-way inter-sector cooperation between Latvia and foreign countries**
Lithuania	- establish awareness of the benefits of **cooperating** (with other companies, research institutions, etc.) **in order to gain a better international competitive position** - support platforms for networking (between research and industrial actors), preparation of strategic plans, and definition of joint initiatives
Norway	- provide sound frameworks and programmes in order to enhance competitiveness of Norwegian enterprises - **identify 'new' areas that combine traditional areas of strength** (e.g. oil and maritime) **with new research areas** (e.g. Nanotechnology and biotechnology) **that can be the future foundation of Norwegian industry**
Poland	- cluster policies are an integrated part of national (and regional) innovation strategies - provide **support for networking and strengthening cooperation between research and companies** - support the development of technological platforms in and between advanced sectors
Sweden	- build **strong 'triple helix linkages' and regional innovation systems** in order to promote more effective innovation processes and take advantage of regional social capital/positions of strength - **identify branches (or new combinations of existing branches) with potential for growth** and international competitiveness

The concept of innovation systems is built on the understanding that innovation occurs when different stakeholder groups and spheres of knowledge are combined. The concept of clusters is also based on the understanding that cooperation between different groups (suppliers, buyers and competitors) helps strengthen the level of international competitiveness for the sector as a whole. Clustering instruments are used to *create or strengthen linkages between public, private and academic/research spheres (the 'triple helix')* in order to catalyse innovation and increase competitive positions for sectors/clusters, regions and nations.

Once there are strong linkages between the 'triple helix' in a specific sector, a common 'next step' is to look for new sources of innovation through linkages with other sectors. [10]

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[10] often referred to as 'next practice'

Clustering instruments can also be used to *facilitate inter-sectoral cooperation and identify new areas for growth on regional and national levels*.

The final strategic priority which several BSR countries shared was the ambition to support leading clusters in *establishing international linkages – forming networks of clusters* in order to strengthen global competitive positions for the BSR as a whole.

Programmes and Activities Relevant to Cluster Development within BSR

All the BSR countries are involved in activities that are within the broad scope of clusters and innovation programmes. However, there are significant differences between the participating countries. The Scandinavian countries Norway, Finland, and Sweden have had at least two generations of cluster and innovation-based programmes. Germany has also been a forerunner and was one of the learning cases for the Swedish VINNVÄXT programme. The Baltic countries, Poland, Denmark and Iceland have had activities rather then full-scale programmes based on the cluster and innovation concept. Usually, these have been catalysed by programmes at the EU-level or by regional innovation strategies or growth programmes. It should also be noted that quite a few cluster initiatives have been started through a bottom-up process, and have been facilitated and supported by the private sector from the start.

In our analysis, we found it necessary to identify a provisional structure of what constitutes an innovation-based cluster programme, and how to understand the concept of programme design. We decided to use the following definition of a cluster programme:

A cluster programme focuses on financing cluster initiatives that are formed to support existing or emerging clusters of geographically-concentrated and related firms, and supporting organisations. These cluster initiatives are often organised virtually around a defined (existing or desired) value-chain.

In this context, cluster and innovation programmes are supporting one or more of the following components, social structures or processes:

- collaboration between all of the Triple Helix actors;

- development of a shared vision for the cluster initiatives' key stakeholders;

- strengthening of the competitive edge of a specific sector or inter-sectoral industry;

- support to a set of system-based and collective activities to build international competitiveness; and

- (often) embedded in a competitive research environment with a noticeable critical mass.

Usually, programme funding will be directed towards soft (process-oriented) cluster management and related activities within the business community (including the public and academic spheres). These activities include: networking; cluster development and positioning; policy development; commercial cooperation; innovation and technology development; and education and training. In addition to funding, these cluster programmes include several design descriptors that relate to a number of choices which form the final programme structure such as the:

- *Rationale* of the programme relating to the programme scope and objectives (e.g growth vs. distribution; national vs. international competitiveness; existing vs. emerging clusters; sectoral vs. inter-sectoral clusters, focus on firms or whole of triple helix, etc.)

- *Design profile* relating to the selection mode (e.g. competition or dialogue), selection criteria and the programme sustainability (e.g time-frame for funding)

- *Implementing support activities* (e.g programme communication, awareness-raising, training, networks and on-going coaching), knowledge development activities (e.g. workshops, conferences, publications, etc.)

- *Evaluation mode* (e.g process (formative) vs. result (summative); support vs. control etc.)

When we analysed the different programmes in the BSR countries we decided to use the first three descriptors since we did not have enough data to describe the evaluation mode. Also, we would like to stress that we have not been able to go in-depth in each programme since it would be all too time consuming. Instead, we have used the descriptors to provide an overall perspective of the existing programmes and make a general assessment in Table 3 (below).

Out of all these existing programmes, we have identified that Germany, Finland, Norway and Sweden all have rich cluster programme experience and are about to move on to the "next generation" of programmes. This should not be interpreted as if Denmark, Iceland, Poland and the Baltic countries lack knowledge and experience in cluster programmes, but the experience and the existing status differ. Still, all BSR countries show unique features and innovative approaches that are vital components in renewing the existing programmes and in the design phase of new programmes. A working hypothesis is that the BSR countries collectively have a unique set of programme-related experience and knowledge that relates to issues such as:

- collaboration across ministries in the policy and programme development process;

- innovative triple helix based approach that still has the ability to focus on business sector development;

- process-oriented and innovative methodologies and cluster initiative support activities; and

- innovative evaluation methods.

Table 3 (cont): Descriptors of Existing Programmes in the BSR			
	Motives	**Design Profiles**	**Programme support**	**Comments**
Denmark	Regional strategies and regional partnership main drivers; main source of financing ERUF	Cluster oriented - with focus on user driven innovation; industry takes a leading role. Prioritising is mainly done by the regional partnerships	Constructing a Danish Cluster Academy in the Triangle Region	No national programme at present
Estonia	DG Enterprise and Industry inspired/driven regional innovation strategy that will report on 7- 8 industrial clusters. FP6 and ERUF have been and will be drivers in the future in programme designing	Future support to cluster initiatives will be based on key technologies and key socio-economic challenges in a bottom-up call for proposals. Prioritized key technologies (ICT, Biotech, Materials) and adressing key socio-economic challenges (environment, energy, security, health care).	Support in programme design and best practice as well as evaluation methods in demand	No national programme albeit gained knowldge with Competence Center-, Innovation Awareness programme. Strong national implementation powers and competence. Focused on value chains in a BSR perspective.
Finland	Programmes based on the need of specialisation and networking pinpointing international competitiveness with national competitive centres as import havens and targeted to "Growth Areas"	Three examples with slightly different focus: **The TRIO programme**, The "revised" **Centre of Expertice** and **The Strategic Centres for Science, Technology and Innovation**. Collaborative and call for proposals as methods.	Support to cluster managers/team is provided on regional level in a non-systemic fashion	Re-design from innovative sectoral approach towards an inter-sectoral approach with the dimesion of innovative networks - application of user-driven innovation

Table 3 (cont): Descriptors of Existing Programmes in the BSR			
	Motives	**Design Profiles**	**Programme support**	**Comments**
Germany	"Entrepreneurial Regions" in the **new German länder** – Federal Ministry of Education and research, BMBF and Competence Networks are being introduced with a Triple Helix methodology in growth areas introduced by the federal Ministry of Economics and Technology, BMWI	Regional alliances to develop regional competence with innovation potential with cluster initiatives as vehicles of growth – concept with five program pillars. Example **InnoRegio** and Collaborative and User-driven approach/bottom up within the **Competence Networks**. Competitive selection mechanism.	National programmes implemented by agencies - The BSR team has not been able to interview them to assert if any supportive actions are provided	Strong regional capacities, whereas the national level is adressing systemic failures and introducing new schemes and policies.New high-Tech strategy that combines the efforts of BMBF and BMWI, like Finland, Norway and Iceland
Iceland	Driven mainly by regional growth agreements in dialogue with the Ministry of Trade and Industry and the agency Impra. Technology platforms facilitated by Federation of Icelandic Industry (initially the EUREKA programme of the EU)	Top-down identification, bottom-up process concerning the regional initiaves. Collaborative/integratad design process with industry concerning technological platforms	Support to clusters/companies and facilitating progress. Lessons learned but not put into system	An interesting and unique 24-hour design workshop as a collaborative instrument
Latvia	Cluster activities are being developed based on the Innovation Strategy. Focusing on national technological excellence. Inspired by the EU programme "Phare" (sectoral approach) initially.	Drafting a cluster-based programme 2007/08 with the intention to strengthen links between companies and research institutions. Call for proposals will be used	Dissemination and promotion campaign has been conducted in 2006 and will continue in 2008	New programme targeting resources towards cluster management are being designed
Lithuania	Driven by the EU - concept of "technology platforms" and the ERUF. A history of working with programmes like Twinning-projects	Technology-based concept where cluster initiaves are mainly seen as business federations		A collaboration between the Ministry of Economy and the Ministry of Education and Science has developed, and a "new type of programme" might be created.
Norway	Mobilise the business sector, increase the innovation potential and output	The **ARENA programme** is/was targeted at going from networks to cluster initiatives.The Norwegian Centre of Expertise, **NCE programme** is founded on Triple Helix and the innovation dimension in mature clusters. Initiatives are chosen by dialogue and regional cooperation with the national level, as well as implemented by competition	Both programmes have support activities regarding training courses in cluster facilitation, development of new methods and knowledge, as well as participatory evaluation by reserach teams.	Next generation of programmes are being discussed, and there is a strong movement towards internationalisation of cluster intiatives and innovative sectoral clusters as well as innovative networks of clusters
Poland	On the national level, the driver is the new operational programme for Innovative Economy; and on the regional level, the drivers are the regional innovation strategies (RIS). The new ERUF and the policy framework has served as a catalyst to cluster-based programmes/actions	A pilot programme (to be launched in 2007) is being designed by the Polish Agency for Enterprise Development in close cooperation with the Ministry of Economy. The programme will be targeted towards soft measures, targeted in development of existing clusters. Initiatives are chosen by competition.	Soft measures like facilitation skills development. Training programmes for consortia making up various cluster intiatives	Strong potential for the national level to adress systemic failures and introducing new schemes and policies implemented at the regional level
Sweden	Driven by regional growth agreements, VINNOVA innovation system policy and Swedish government by regional policy development	Regional competitiveness, **The Visanu Programme**, Commercialisation of R&D trough Triple Helix cooperation/collaboration, **The VINNVÄXT Programme**, Market driven collaboration by Triple Helix based cluster initiatives, **The Transforma Program. Initiatives** are chosen by dialougue with regions and cluster initiatives as well as implemented by competition	All the programmes are supported by activities regarding training courses in cluster facilitation, development of new methods and knowledge as well as participatory evaluation by research teams.	Next generation of programmes are being discussed, and there is a strong movement towards internationalisation of cluster intiatives and innovative sectoral clusters as well as innovative networks of clusters

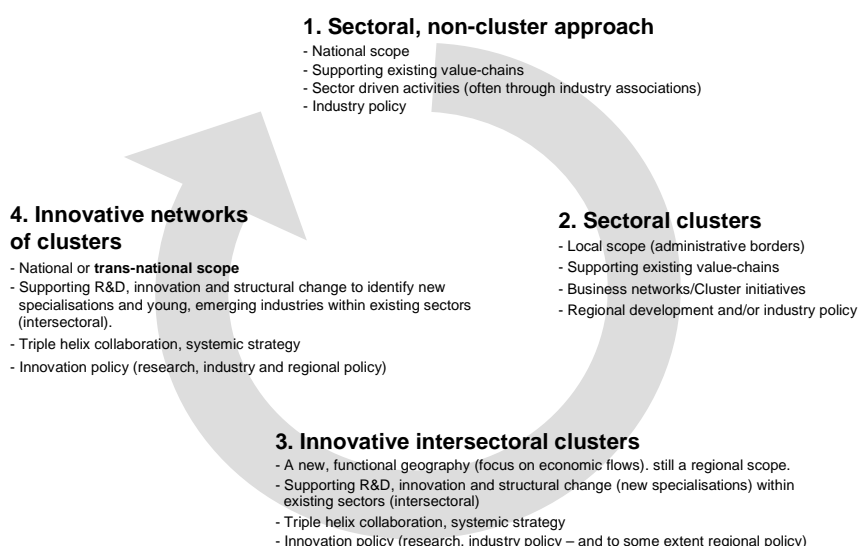## A Typology of Existing Policy Strategies and Cluster Programmes

Even if only four out of the ten BSR countries have experience of designated cluster programmes, all ten countries are running, or in the planning phase of implementing new cluster-related programmes. Looking into the different policy frameworks that have formed these programmes – implemented or in planning – an explanatory development structure based on four different dimensions emerged:

- geographic scope (including existing governance structures);
- degree of innovation and renewal;
- form of collaboration; and finally
- policy orientation

In addition to these dimensions, all countries see cluster-related programmes as a tool for sustainable economic growth and carry at least a notion of the importance of international competitiveness. Based on these dimensions, a typology into four different cluster programme approaches and policy strategies within the 10 BSR countries was identified (illustrated in Figure 1):

1. Sectoral, non-cluster approach

2. Sectoral clusters

3. Innovative and inter-sectoral clusters

4. Innovative networks of clusters

**Figure 1: The Cluster Programme Development Spiral
(cluster programme approaches within BSR)**

1. Sectoral, non-cluster approach
- National scope
- Supporting existing value-chains
- Sector driven activities (often through industry associations)
- Industry policy

4. Innovative networks of clusters
- National or **trans-national scope**
- Supporting R&D, innovation and structural change to identify new specialisations and young, emerging industries within existing sectors (intersectoral).
- Triple helix collaboration, systemic strategy
- Innovation policy (research, industry and regional policy)

2. Sectoral clusters
- Local scope (administrative borders)
- Supporting existing value-chains
- Business networks/Cluster initiatives
- Regional development and/or industry policy

3. Innovative intersectoral clusters
- A new, functional geography (focus on economic flows). still a regional scope.
- Supporting R&D, innovation and structural change (new specialisations) within existing sectors (intersectoral)
- Triple helix collaboration, systemic strategy
- Innovation policy (research, industry policy – and to some extent regional policy)

Even though Finland is just in a pilot phase of their new cluster programme, it seems as they have taken a lead within BSR in trying to form **national networks of clusters** (or cluster-like centres of expertise initiatives/national innovation systems) with global excellence based on

an R&D-driven innovation policy which also includes a clear industry policy with a regional policy dimension. The overarching objective is to identify new specializations that can lead to the emergence of new sectors – which, in a long-term perspective, might become traditional sectors of the future. It is a complex, systemic approach when it comes to policy, geography and (triple helix) collaboration across traditional boundaries creating a challenging framework to both govern and implement programmes within.

It is interesting to note how the 'innovative network of clusters' approach can cross regional and even national borders and administrative boundaries and visualize the very existence and **need of a trans-national dimension in the next generation of cluster and innovation system programmes**.

In practice, Finland, Norway, Sweden, Germany and Denmark all have a distinct **innovative and inter-sectoral approach** to their existing or planned programmes. The one dimension differentiating Finland a bit from the other Nordic countries is really the geographical scope focusing on national innovation systems (networks of clusters). Especially Sweden and Norway have worked strategically using cluster programmes to put their innovation and industry policies into practice forming both traditional, sectoral cluster programmes and innovative inter-sectoral cluster-programmes.

In Iceland, they have mainly used clusters as a tool for regional development in their rural areas, implementing **sectoral cluster programmes** within traditional sectors and value-chains.

Finally, we have identified that the Baltic countries and Poland are new-comers to cluster programmes even though we have seen a few examples of cluster initiatives, especially in Poland. These four countries are traditionally supporting well defined industry sectors through national industry associations. Therefore, we have characterized these countries as supporting a **sectoral, non-cluster approach**. In relation to the new structural funds they are all in the process of designing cluster programmes, mainly within a sectoral framework but potentially also within an innovative inter-sectoral framework.

Analysis

Analysis is an important part of the BSR InnoNet project – reflecting our belief that analysis plays an imperative role in the policy process generally. In the field of cluster policy, analysis is useful for a number of reasons:

1. Analysis provides a factual basis from which policy strategies can be grounded.

2. Statistical data provides a 'reality check' on which proposed activities/applications can be compared (e.g. are submitted proposals suggesting realistic targets?).

3. Cluster maps provide a basis from which initial clustering processes (e.g. network formation) can be initiated.

4. Cluster maps also identify 'positions of strength' and provide a starting point from which more in-depth analysis (e.g. of 'cluster portfolios' and relation between performance and framework conditions) can be conducted.

5. Analysis of cluster performance (over time) provides a piece of the puzzle that is interesting for evaluation of cluster policies in the longer-term.

As illustrated in the Table 4 (below), most countries have conducted some form of cluster analysis. However, only Lithuania has integrated cluster analysis into the process of forming strategies and designing programmes to support cluster development.

Table 4: Analysis of Clusters in the BSR Countries							
CLUSTER ANALYSIS BSR COUNTRIES	Cluster Mapping	Cluster/Sector 'Portfolio Analysis'	Integration of Analysis in Formulation of Policy?	Baseline Assessment of Cluster Initiatives	Evaluation of Cluster Initiatives	Evaluation of Cluster Policy (i.e. impact of cluster performance on economy)	Comments
Denmark	x	x					cluster 'portfolio analysis' only on a regional level
Estonia	x	x					recent *Made in Estonia* report provides a good overview
Finland	x	x	(x)				cluster 'portfolio analysis' used to determine prioritized sectors for Strategic Centres for STI
Germany							not aware of any analysis of clusters on a national level
Iceland	x	x			x		cluster 'portfolio analysis' only on a regional level; frameworks for evaluation of cluster initiatives recently initiated
Latvia	x						EU cluster mapping
Lithuania	x	x	x				A detailed report on clsuters in Lithuania (and in the BSR) was recently prepared and submitted to the Ministry of Economy - as input to their policy/programme design
Norway	x			x	x		Evaluation of cluster initiatives currently based primarily on qualitative indicators
Poland	x	x					Gdansk Institute of Market Economics has produced a number of analyses of clusters in Poland
Sweden	x	x			x		Evaluation of cluster initiatives currently based primarily on qualitative indicators

Although analysis is not currently an integrated part of the process for cluster policy/programme formulation, a number of needs for cluster analysis were identified:

- o Identification of clusters/competitive sectors (both on a national and BSR-wide basis)

- o Benchmarking of clusters among countries in the BSR (and elsewhere)

- o Models for evaluating cluster performance (and how framework conditions impact cluster performance)

A number of these needs will be addressed in WP4. A more detailed discussion of issues related to cluster analysis (e.g. methodology, data comparability, uses for evaluation and benchmarking purposes, etc.) has been addressed at the workshop on *Using Statistical Cluster Data for Policymaking*, hosted by FORA on May 23rd in Copenhagen.[11]

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[11] The workshop was planned in coordination with the Cluster Mapping project. Attendees included DG Enterprise, the Cluster Mapping project, the other three InnoNet projects, and all WPs of the BSR InnoNet.

Overview of Needs

The grand objective of the BSR InnoNet is to form a supportive trans-national policy framework and initiate one or more trans-national programmes, including a cluster initiative pilot programme, that will result in one or more suggested full-scale designs of a trans-national cluster programme by the time the activities within the BSR InnoNet are finalised in 2009.

To find out how this could be done, we focused our national consultations on identifying:

- the existing expectations for the BSR InnoNet;

- needs related to innovation and cluster policy, programme design and programme implementation;

- opportunities for the development of a trans-national programme; and finally

- barriers for the development of a trans-national programme.

In this chapter, we will try to present an overview of what we learned in our consultations. We will do that by first discussing the idea of trans-national programmes and addressing the question of potential opportunities and barriers for the development of such a programme. Then, we will describe the identified needs, and finally we will discuss what could be accomplished both within and outside the scope of the BSR InnoNet.

Trans-national programmes – opportunities and barriers

Since the over-arching idea within BSR is to form a common policy framework and one or more trans-national cluster programmes, we needed to focus our consultations and analyses on the opportunities to develop realisable programme designs (answering the basic questions of why, what, when and how), but also be able to launch several trans-national activities within the project that will facilitate the emergence of a joint policy framework and trans-national programme(s). These supportive activities (e.g a cluster initiative pilots, awareness raising, training, workshops, etc.) could also be defined as trans-national programmes <u>within</u> our project. Therefore, *the concept of trans-national programmes relates both to the means (joint support activities) and the end objective (a joint framework and one or more cluster programme designs) of BSR InnoNet.*

Opportunities – drivers for trans-national programmes and support activities

When discussing the opportunities for the development of a trans-national cluster programme, both within BSR and after the project is closed, we were able to identify four overall support needs: [1]*awareness-building;* [2]*good practice and knowledge development;* [3]*identification of new, inter-sectoral industries to support structural change for economic growth; and* [4]*international collaboration and competitiveness;.* Several of these categories are related, but not interchangeable.

Awareness-building

By working together within BSR InnoNet it is possible to develop and arrange different kinds of activities – across the partner countries – that will build awareness concerning the benefits of clusters, clustering and networking (workshops, seminars, training sessions, articles, etc.). Within the BSR, there is a large amount of collective experience and knowledge that could easily be shared and diffused. Here is potential for trans-national activities and immediate action.

Good practice and knowledge development

This category is mainly related to the fact that there are huge knowledge-transfer potentials between the Nordic countries and the Baltic Countries in both how to design cluster programmes and how to support the individual cluster initiatives. The Nordic countries and Germany have experience from designing and implementing cluster programmes, and the Baltic countries and Poland are right now in a planning and start-up phase. Therefore, there is a demand, and an expectation on BSR, to form one or more cluster development training courses for both cluster facilitators and policy makers. Also, there is a demand for forming hands-on activities that focus on how to design programmes. At the same time, it is interesting to note that the interest for a traditional handbook in cluster development or programme design is low. On the other hand, there is distinct demand for bilateral activities often related to knowledge transfer and consultations in specific areas. Here is a high potential for trans-national activities and immediate action.

Identification of innovative inter-sectoral clusters and cluster initiatives – for economic renewal

Across all BSR-partners, there is an interest in finding instruments to identify new, innovative inter-sectoral clusters and to spur and initiate new cluster initiatives, e.g by bundling together different sectors, technologies and knowledge bases. The idea is to support a sustainable structural change and renewal process for economic growth and international competitiveness within an emerging knowledge based society. For instance, there is a demand for a dynamic cluster identification model that is able to identify these new sectors. Examples of sectors that could be of interest to study in-depth are: environment, energy, health and transport. In Finland, Sweden and Norway, we have identified that there are existing programmes addressing this issue, but there is still huge potential for improvements. A trans-national programme could definitely take on this issue.

International collaboration and competitiveness

Several partners raised the importance of stressing the international dimension in all cluster activities, and that there ought to be a focus on international competitiveness within traded (inter) sectoral clusters. Therefore, it is of interest to identify clusters (organised around a theme, innovative value-chain or within interrelated sectors) around the BSR-region which could benefit from collabourative activities and exchange. Also it is of interest to identify similar need-to-address challenges or problems to find workable solutions that could benefit similar or different sectoral clusters, e.g FDI-issues, branding, positioning and marketing of cluster initiatives, R&D, IPR, etc. The planned pilot for cluster initiatives and the potential trans-national cluster programme would answer to this demand.

Barriers – challenges for trans-national programmes and support activities

Our consultations manifested that there is a huge demand for joint activities which can be visualised both through the strategic priorities and opportunities for trans-national collaboration in the sections above, but also evident when reading about the identified needs in the section below. It makes sense, since all ten countries are running cluster programmes or are planning to initiate a programme within the next year. Also, there is a collective agreement on the potential for creating a joint understanding and policy framework within the BSR-countries. Still, a majority of the partners are doubtful that BSR's main objective (to implement one or more full scale trans-national programmes) is realisable. They stress that the road seems fruitful and worthwhile, whereas the end objective might be of less importance. The reasoning behind this hesitation could be summarised in two categories: lack of national readiness and structural differences.

Lack of national readiness

First of all, it was stressed by most countries that the trans-national dimension is important, but in most cases the focus is and should be on the national and regional activities. Therefore, there might be a weak interest from some policymakers and part of the business sector to engage in and provide resources for a trans-national programme. One reason might be a lack of understanding of the benefits to taking part in such a programme, and another common and often given reason is the lack of funding. There is actually a fear that it will be difficult to engage firms in *national* cluster activities (related to the need for awareness-raising), and that the *trans-national* dimension might even interfere with national cluster activities (making things even more challenging for implementing agencies). Also, several partners have expressed that they see a danger in trying to squeeze in the needs and demands of ten countries into a programme format that, in the end, might turn out be irrelevant for all countries.

An incremental strategy, to initiate one or several pilots by connecting existing cluster initiatives, in pre-defined sectors (preferably inter-sectoral), within the different national programmes could be a first realisable step, i.e to add a trans-national dimension on what is already underway or working and thereby raise national readiness.

Structural differences within and between the countries – need for a trans-national policy framework and awareness building activities

This challenge is self-explanatory in any trans-national situation, but needs to be addressed in this specific context. We have broken it down into two different dimensions: *the national-regional* dimension and *the cultural dimension* (lack of trust and a collaborative tradition).

The national-regional dimension. Several countries have identified that there is lack of over-arching frameworks and priorities to guide cluster development within their own countries (national and regional-level strategies), including both programming gaps (e.g matching of priorities and frameworks for activities between regional and national levels etc) and operational gaps (e.g differing strategies and priorities, no organisation with mandate to implement etc). Also, there are (both European and) national-level restrictions on programming and financing which might "squeeze" the regional level when forming and launching their regional strategies – and cluster programmes.

The cultural dimension (lack of trust and a collaborative tradition). There is also a potential barrier in the cultural differences between the BSR countries in relation to the collaborative tradition and the degree of trust. In the Nordic countries, there is a long tradition among firms

to collaborate based on sound market conditions. Based on a solid principle of trust, firms are simply able to both compete and collaborate with each other, which is one of the basic tenets of all successful clustering and networking activities – mainly to overcome natural market failures. This tradition is not present in the Baltic countries and Poland, where the free market logic and the rapid structural changes have formed a hesitance, or even a resistance to collaboration between firms. Therefore, a system-orientated collaboration within triple helix is (wrongly) seen as being part of the past – not a way to work on a functional market. Also, we have identified an explicit deficit of trust within the business sector and between the different actors within Triple Helix. The cluster concept is therefore at first glance not all that attractive to the firms – or policy makers – in the Baltic countries and Poland, rather something they are forced to relate to because of the content of the Structural Funds.

From a logical reasoning based on the theoretical idea that policy precedes implementation, adding a trans-national dimension to these existing gaps and cultural differences might be too much of a challenge – at least within the short time-frame of BSR InnoNet. We disagree. We definitely believe it is possible to force change in the existing policy frameworks by taking action. At least it is fruitful to see policy and implementation as parallel processes. *We have identified the potential in using a push-strategy with an incremental development logic – this goes hand in hand with the incremental strategy presented above. First we implement a number of trans-national support activities (e.g awareness-raising, training programmes etc.), then a pilot, and then finally, a full-scale programme. By then, policy frameworks are probably in place as well.*

Identified needs – and potential for immediate action

Throughout our consultation and mapping of existing and planned programmes/activities related to cluster development, a number of expressed needs were identified. These needs have been accounted for in the national consultation reports. In the table on the next page, we have tried to structure these needs by grouping them into over-arching categories and sub-categories (identified in two or more countries).[12]

In relation to BSR InnoNet's project plan (Description of Work), it is obvious that we are on the right track with the exception of the idea to write a traditional handbook which does not seem to be in demand. The following categorised needs are all partly in our project plan: cluster development training, programme design activities, identification of good-practice examples, improvements of the institutional framework conditions and cluster analyses. Still, there is a need to discuss in-depth what action to take to handle these needs within BSR InnoNet and our trans-national framework.

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[12] For an enlarged version, see Appendix III.

TABLE 5: Expressed Needs in the BSR Countries

BSR COUNTRIES / NEEDS	Denmark	Estonia	Finland	Germany	Iceland	Latvia	Lithuania	Norway	Poland	Sweden	Comments
Training - Cluster development											
- Cluster facilitation	x	x		x	x	x	x	x	x	x	
- Policy makers	x	x	x		x	x	x	x	x	x	
- Handbook and other resources		x		x							A traditional handbook is not in demand
- Next practice (the innovative dimension)	x		x		x			x		x	
Program design											
- Training	x	x			x	x	x	x	x	x	
- Knowledge sharing/Consultation	x	x		x	x	x	x	x	x	x	
- Handbook and other resources								x			A traditional handbook is not in demand
Good-practice examples											
- Cluster programs	x	x		x	x	x			x		
- Sectorial Cluster Initiatives		x		x	x	x	x		x		
- Intersectorial Cluster Initiatives	x	x	x	x	x	x	x	x	x	x	Innovation systems are in focus!
- Benchlearning (of clusters in BSR)	x			x				x	x	x	
Institutional framework and strategies											
- Knowledge sharing/Consultation	x	x	x	x	x	x	x	x	x	x	Various contextual needs
- Awareness raising (whole of triple helix)	x	x			x	x	x	x	x	x	What, why and how!
- Funding (new sources including EU)		x		x		x	x		x	x	
- How to handle transboundary issues	x	x	x	x	x	x	x	x	x	x	E.g Policies, structures and implementation across boundaries (in regions, nations or a transnational setting)
Analysis											
- Identification of emerging sectors	x		x					x		x	
- Alterntive to the Porterian analysis	x	x						x		x	
- Mapping of clusters in BSR	x		x	x	x	x	x	x	x	x	A need for a BSR mapping/visualisation
Bi- or trilateral needs	x	x		x		x	x	x	x	x	Will be handled by BSRInnoNet!

Needs outside the core activities – still an important part of BSR InnoNet

We have identified a number of bi- or trilateral needs which might be seen as outside the scope of core activities defined in the Description of Work. We see these emerging needs as an important part, and a *de facto* result, of our activities which will be addressed and taken care of within the BSR InnoNet. These needs are described in the national consultation reports. The most frequent need is direct knowledge transfer or consultation from one country to another, or specifically from one implementation agency to another. In general, there is a demand in the Baltic countries and Poland for country and agency consultations from the Nordic countries, which have expressed a willingness to share their knowledge, both to sharpen the existing tools and programme design skills and to support their colleagues. Finally, there is a general need among the Nordic countries to implement joint activities related to the next generation of cluster programmes and support activities focusing on innovative inter-sectoral clusters and national or trans-national networks of clusters.

All these needs will be addressed by the members in the BSR InnoNet management committee, by trying to directly connect the different agencies with each other.

The Potential Scope (Rationale) for Trans-National Programmes within the BSR

Based on the typology and discussion on p.14 above, as well as the expressed needs, we have identified a number of potential cluster programme categories which could constitute the scope (rationale) of a trans-national programme within BSR – pilots or full-scale programmes.

Five related but not necessarily interchangeable categories have been identified:

Geography. This might be seen a thematic issue, but we consider it to be a category of its own. In many BSR countries, there is an interest in using the cluster concept in *rural areas*

with a relatively small critical mass (where the cluster concept is used as a tool for regional development, rather than international competitiveness and national relevant economic growth). Also, there seems to be an interest in grouping *cluster initiatives from big cities with a high critical mass* because they seem to work under somewhat different and very competitive conditions.

Sectoral-clusters. There is a potential in bringing together existing working clusters in traditional, but highly internationally competitive industry sectors – across the BSR. Potential sectors that seem relevant with related value-chains (vertical or horizontal logic) could be shipbuilding, ICT, Forestry, Food and Mechanical Engineering.

Thematic issues. We have identified a number of issues or structural needs that have been addressed in several countries such as how to deal with the *aging population;* how to get out of the grip of fossil-based energy sources and develop new, *sustainable energy sources*; or more specifically the renewal of the *transportation system.* If we transform these themes into economic activities, new inter-sectoral clusters might emerge (see below).

Innovative inter-sectoral clusters (a theme in praxis)**.** There is a desire to identify and support new emerging sectors (potential value-chains) that are a result of an innovative mix of new and existing value-chains, industry sectors, technologies and competence areas. Areas that have been pinpointed are health, environment, energy, entertainment (gaming, creative arts) and transportation.

Support activities. A large number of needs have been identified and could easily be the starting point for a trans-national programme. These needs will be described in the section: "overview of needs".

Conclusions

This paper has provided a description of the status of existing innovation and cluster policies, institutional frameworks and programmes concerning clusters and innovation systems within the BSR countries. The paper has also presented a summary of the needs related to innovation and cluster policy, programme design and programme implementation, as well as the opportunities and barriers for the development of a trans-national programme.

This paper served as a basis for discussion at a joint meeting of the practitioners' (WP3) and policymakers' (WP6) working groups of the BSR InnoNet, held in Copenhagen, Feb 13-14, 2007. At this meeting, a number of questions were posed:

- Do you disagree with anything in the report? What information/analysis "sticks out"? What are your conclusions?

- On which trans-national support activities should we take immediate action?

- On what theme(s) should a full-scale[13] trans-national programme(s) focus?

Working Group members provided the following overall feedback on the report:

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[13] We make a distinction between full-scale trans-national programmes and trans-national support activities.

- The spiral typology was useful in providing an overview, but it should be presented in a different way (e.g. a radar graph) to better reflect the different aspects of the countries' programmes

- It would be interesting to have more information (e.g. by cases) on the different actors in the various clusters, and what the drivers are for the different actors

- More details on cluster programmes are needed (e.g. rationale, design process, programme concept, etc.)

- The trans-national dimension is still un-clear. It would be helpful to have more information and discussion on the benefits of pursuing a trans-national cluster programme.

This feedback will be considered for a "Version 2" of this paper (which could be published as input to the European Cluster Conference to be held in Stockholm, January 2008). The current version will be finalized and submitted to the Commission before the end of May.

Discussions in both working groups identified a broad demand for support activities. It was determined that case-based training (capacity building) is the goal. There are five main target groups for this training: cluster facilitators/managers, civil servants, politicians, academia, and companies. The specific needs of these different groups should be surveyed so that cases and training modules can be developed to address various groups' needs.

Discussions on a pilot for a full-scale trans-national programme highlighted a number of principles that should be kept in mind – and questions that should be answered – before launching a pilot:

- A trans-national programme (pilot) should be motivated not only by learning exchange, but also by commercial drivers.

- The programme focus should be recognizable and interesting for businesses.

  ➢ *What are the 'strong sectors' in the Baltic Sea Region?*

- The programme should be targeted at pragmatic solutions rather than being too ambitious.

  ➢ *What kind of trans-national programme(s) are in most demand? Which are most plausible?*

- Existing models of cooperation (e.g. Scanbalt) and institutional structures should be used; one should not create new structures, but rather build on existing (successful) structures.

  ➢ *What alternative financial models exist? What are the vehicles/structures for trans-national activities (in the shorter and longer term)?*

These areas (survey of needs, review of alternative financial models) will be the focus of discussion at the next working group meeting (scheduled for May 24th in Copenhagen).

Appendix I: Interview Guide

<u>Ministries</u>

1. Background of the organisation and interviewee
2. What is the current state of cluster policy in your country (in the context of innovation/industrial policy generally)?
3. What is your country's strategy for cluster policies (particularly over the next 3-5 years)? Are there any written strategy documents referring to cluster policies?
4. How do decision-making bodies (ministries) work together with implementing bodies (innovation agencies) in your country?
5. Does analysis (regular follow-up on facts/statistics – highlighting strengths and weaknesses to address) play a regular part of the policy-making process?

and 6,8,10 below

<u>Implementing Agencies</u>
1,2,4,5 above and:

6. Does your country/organisation have any cluster (or cluster-relevant) programmes? Are there written descriptions of the programme?
7. If your country has cluster programmes, have any evaluations been conducted? Please provide an overview of the process and any measurements used to evaluate success of the programme/initiatives.
8. What do you view as important elements of a cluster programme (top three)?
9. How do you approach the issue of Cluster Initiative facilitation?
10. What is your view on the opportunities of and barriers to initiating a trans-national cluster programme in the BSR?

<u>Cluster Visits</u>
1,2 above and:

11. Describe your cluster

- Purpose/objective of the cluster initiative
- How was it created?
- How is objective achieved?
- How is the cluster initiative managed? (talk about cooperation v. competition)
- International orientation

12. Is your cluster initiative part of a national programme?
13. How do you evaluate success of your cluster/cluster initiative?

And 10 above

Appendix II: Schedule of National Consultations

October 25-26: Estonia

November 6-7: Norway

November 9-10: Iceland

November 23-24: Germany

November 29: Denmark

December 1 and 7: Sweden

December 11-12: Poland

January 8-9: Latvia

January 10-11: Lithuania

January 15-16: Finland

Appendix III: Table of Identified Needs

TABLE 5: Expressed Needs in the BSR Countries

NEEDS / BSR COUNTRIES	Denmark	Estonia	Finland	Germany	Iceland	Latvia	Lithuania	Norway	Poland	Sweden	Comments
Training - Cluster development											
- Cluster facilitation	x	x		x	x	x	x	x	x	x	
- Policy makers	x	x	x		x	x	x	x	x	x	
- Handbook and other resources		x									A traditional handbook is not in demand
- Next practice (the innovative dimension)	x	x	x	x	x	x		x		x	
Program design											
- Training	x	x				x	x	x	x	x	
- Knowledge sharing/Consultation	x	x		x	x	x	x	x	x	x	
- Handbook and other resources							x				A traditional handbook is not in demand
Good-practice examples											
- Cluster programs	x	x			x	x	x		x		
- Sectorial Cluster Initiatives	x	x		x	x	x	x	x	x		
- Intersectorial Cluster Initiatives	x	x	x	x	x	x	x	x	x	x	Innovation systems are in focus!
- Benchlearning (of clusters in BSR)	x		x	x	x	x		x	x	x	
Institutional framework and strategies											
- Knowledge sharing/Consultation	x	x	x	x	x	x	x	x	x	x	Various contextual needs
- Awareness raising (whole of triple helix)	x	x		x	x	x	x	x	x	x	What, why and how!
- Funding (new sources including EU)		x	x	x		x	x		x	x	E.g Policies, structures and implementation across boundaries (in regions, nations or a transnational setting)
- How to handle transboundary issues	x	x	x	x	x	x	x	x	x	x	
Analysis											
- Identification of emerging sectors	x		x					x		x	
- Alternative to the Porterian analysis	x		x					x		x	
- Mapping of clusters in BSR	x		x	x	x	x	x	x	x	x	A need for a BSR mapping/visualisation
Bi- or trilateral needs	x	x		x		x	x	x		x	Will be handled by BSRInnoNet!