



Supporting tools for Regional Innovation systems

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1. Summary

This study is a result of the project “VBN InnoReg”. VBN InnoReg involves 10 partner regions in the Via Baltica Nordica (VBN) zone. University of Umeå, Unit for External Relations, is partner no. 18 in VBN Innoreg.

The Unit for External Relations is an actor in the Regional Innovation System (RIS) in the county of Västerbotten, Sweden. Our commission is to support and strengthening the cooperation between SMEs (Small and Medium-sized Enterprises) and researchers at the University of Umeå

This study is focusing on “supporting tools” for RIS, i.e. tools designed to support and stimulate cooperation between SMEs and R&D. Supporting tools can be different types of financial/economic tools, intermediary orientated with focus on consults or other kind of instruments.

A survey, a SWOT, on supporting tools used among VBN Innoreg partners was carried out in order to find “best practise”. The purpose of the SWOTs was to get at picture over what kind of financial instruments or methods the partners use to stimulate innovation and growth. In the SWOTs the partners were asked to choose the two instrument or methods that are most useful to stimulate growth in the region. Using a SWOT the key strengths, weaknesses, opportunities and threats relevant for the competitiveness of the regions are evaluated.

Not all of the partners were using any specific instrument or method that full fills all of the evaluation criteria’s. The supporting tools showed a great range of variation according to different types and contexts for the RIS’s. Twelve SWOT answers were received out of which four partners describe more complete and concrete development concepts and strategies fulfilling the evaluation criteria’s.

Economic conditions and development of business life differs between regions within VBN Innoreg. Consequently, differences between RIS’s in the regions are also large. However, there seem to be factors that are common for many of the RIS according to the reported SWOTs. Some of these common factors are presented below.

Some common SWOT-answers

Strengths

- Easy to use – availability - Simple administrative procedure
- Easy access to (incubator) services -tailored solutions
- Wide scope of themes
- New linkages between researchers and companies
- Implementation of innovation an new technologies
- Capacity and potential to produce and exploit new knowledge and innovation

Weaknesses

- Limited resources - Small overall funding - Small state subsidy
- Small size of program
- Evaluation process takes too long
- Duration of projects too short
- Lack of interest/knowledge among companies
- Lack of skilled labour force in certain fields

Opportunities

- Increased cooperation between SMEs and service providers
- Development of expertise in particular fields and specialisation in business

Threats

Lack of public funding – dependant on public funding
Bureaucratic barriers
Few private investors – private investors want quick results
Difficult to attract companies
Structural inflexibility of the public sector and business sector

2. Introduction**2.1 VBN InnoReg**

This study is a result of the project “VBN InnoReg”. VBN InnoReg involves 10 partner regions in the Via Baltica Nordica (VBN) zone. The key element of the project is analysing the knowledge potential, good practices, joint interests and development needs in innovation promotion in VBN partner regions to develop "a joint approach to innovation promotion" for the VBN macro-region. The project promotes regional collaboration and international networking between regional authorities, universities, technology centres and enterprises to foster competitiveness and economic performance of the Baltic Sea region, focusing on VBN macro-region.

The overall goal of the VBN project is to contribute to the development of regional innovation systems by promoting cooperation between regional authorities and developing agencies, universities, other research and educational institutions and technology centres, and by creating new forms of public-private partnership between actors of regional innovation systems.

- analyzing innovativeness, knowledge creation capacity, and capability to use it for the benefit of the business, especially technology oriented SMEs,
- analyzing business start-ups and development services by the partner regions and make appraisals of development needs,
- analyzing (innovative) business environment needs and making development appraisals, focusing on innovative and business creation actions,
- analyzing and making proposals to improve the services of the existing support structures,
- analyzing what attributes innovative environment needs,

Knowledge and know-how have become ever more essential in promoting business growth and economical development. There is a need for effective tools in the process of finding and developing good ideas, know how, and knowledge transfer to promote inventions and commercialisation. Universities, polytechnics, vocational schools, technology centres and regional development institutions can reach a win-win situation by working together, benchmarking and learning from each other.

Key questions are:

- How can we use the outcomes from this cooperation in a more productive way?
- How can each partner benefit from this cooperation?
- How can we make inventions and ideas flourish?
- How can we in an effective way commercialize new knowledge?
- How can we meet the demand for know-how and innovations in regional development – particularly for the needs of SME?

Successful outcome of innovation activities is crucial for wealth and economic growth in a region. Therefore, it is important that promotion of innovation is carried out in an effective way. Innovation includes a spectrum of complex activities, from the idea for solving a problem to the actual use of the economic and the social value of the idea.



In this study a number of tools/instruments for promoting innovation used in the partner regions is analysed by SWOT-analysis.

2.2 Description of the work package (WP3) and this pilot project

The work package (WP), that this study is a part of, aims at developing regional innovation systems through **piloting new tools and innovative work methods for regional innovation system**. Relying on the results of the analyses and the innovation strategies partner regions can recognize the aspects of their innovation system needing improvement and choose certain tools or methods they want to pilot in order to improve those aspects. Even without an analysis, there are known issues relevant to all regional innovation systems, such as lack of appropriate regional financing instruments and problems with regional cooperation. These issues are central in this WP, as any solutions to them are bound to benefit all the partners.

The concrete activities of this WP address the issues recognized with the analyses and the strategies. They include developing new business development services for research-based and technology oriented SMEs and start-up entrepreneurs, and strengthening and developing Technology Park Concepts (TCP) and Business Incubator Activities (BIA) along the zone. In this WP, technology park and business development models from some partners are benchmarked and partly adapted to other regions. This includes increased awareness in the areas of innovation management and business mentoring approaches.

This study is focusing on “supporting tools” for RIS, i.e. tools designed to support and stimulate cooperation between SMEs and R&D. Supporting tools can be different types of financial/economic tools, intermediary orientated with focus on consults or other kind of instruments. In order to find “best practise” concerning these tools, a survey on supporting tools used among partners was carried out.

These supporting tools will most probably show a great range of variation according to different types and context for the RIS's.

Pilot project: Supporting tools for RIS
Organisation responsible: Umeå University (Sweden)

2.3 Regional Innovation System

Defining the RIS

Tampere Region defines innovation system as follows:

“Innovation system is comprised of the elements and the relationships between these elements. The elements and the relationships interact in the production, diffusion and use of new knowledge. This new knowledge is exploited for practical use including commercial use. The knowledge can be skills and competencies, new ideas and concepts, new technological or organisational advances. (Lundvall 1992, p. 2), (Cooke 1997, p. 478), (Schienstock & Hämmäläinen 2001, p. 75) “

Cooke, P. Uranga, M. G. & Etxebarria, G. 1997. Regional innovation systems: Institutional and organisational dimensions. Research Policy. Vol. 26, Issues 4-5. pp. 475-491.

Lundvall, B-Å. 1992. National systems of innovation: towards a theory of innovation and interactive learning. London: Pinter. s. 342.

Schienstock, G. & Hämmäläinen, T. 2001. Transformation of the Finnish innovation system: A network Approach. Helsinki, Sitra. S. 247.



“Which organisations, institutions and actors that are included in the innovation system depends on the level of analysis and is also case-specific. The level of analysis can be e.g. local, sectoral, regional or national. Key organisational elements on the regional level include: firms and their R&D-units, universities and research institutes, educational institutes, public and private finance, public sector that is responsible for policies, intermediary organisations, other public and private organisations that affect innovation, and the relationships between these elements.”

The Havelland-Fläming region points out the importance of the entrepreneurs within the RIS. They conclude that “it is likely, that only few improvements in the innovation system can lead to far better improvements in competitiveness, regarding present management structures in SMEs. It is obvious, that improvement of the innovation system depends less on an institutional framework, but first on the attitude of entrepreneurs, his willingness to participate in a SWOT-analysis and in contacts to external experts.”

Some of the key factors for an effective RIS are:

- physical infrastructure
- skilled labour force
- levels of corruption
- strong clusters
- demanding regulations
- a strong science system
- and companies competing on innovation and uniqueness

3. Objectives

The objective of this study is to evaluate the tools and/or methods each partner finds most effective in their work with SME & Research and growth in the region. The aim is to find “Best Practice”. The “Best Practice” is an instrument or tool designed to create growth with the aid of R&D in the company’s development processes.

The goal of the evaluation is to establish which instrument or instruments has/have the best qualities to create growth. What strengths, weaknesses, opportunities and threats are there in order to make this possible?

Activities are focused on the aim of the project: to find Best Practice. Therefore SWOTs were used to identify and shed light on strengths and opportunities.

It was assumed that the supporting tools will show a great range of variation according to different types and contexts of the RIS’s. However, the lack of use of any specific instrument or method fulfilling the evaluation criteria has turned out to be problematic.

4. Methods

The key element of this study is analysing “best practice” in the VBN partner regions. This analysis includes information of the strengths, weaknesses, threats and opportunities and helps to identify best practices and concrete tools in commercialising of knowledge in the partner regions.

The tools/instruments are evaluated according to the following topics:

- Growth as a goal: The instrument shall have the purpose of creating growth for SMEs through research, preferably governed by demand
- Usability: The instrument shall be clear and easy to use by both R&D and SMEs



- Non-bureaucratic (few decision-making levels)
- Up-to-date, relevant in its approach to the issues facing companies of today

Questionnaires including SWOT analysis were sent out to each partner. In the SWOT each individual partner evaluates the tools/instruments used in their region. The SWOTs were compiled and analysed by the University of Umeå, External Relations.

First survey

SWOT1

In the first SWOT the partners were asked to choose two instrument or methods that the partners found useful to stimulate growth in his/her own region. They were also asked for explanations about why the instruments or methods were chosen.

The purpose of the SWOT was to get at picture over what kind of financial instruments or methods the partners use to stimulate innovation and growth. Information and instructions for SWOT 1 in annex 3:1.

Second survey

SWOT 2-3

"SWOT 2" was focused on the Strengths and Opportunities of the 2 instruments/methods that were described In SWOT 1.

Only two of the partners have answered SWOT no. two and three. Therefore, these SWOTs have been eliminated from this study. Reminders and clarifying documents were sent out to the partners. Information and instructions for SWOT 2 in annex 3:2.

5. Results

Twelve SWOT answers were received out of which five partners describe more complete and concrete development concepts and strategies fulfilling the evaluation criteria's:

- Growth as a goal
- Usability
- Non-bureaucratic
- Up to date

Not all of the partners have reported any specific instrument or method.

5.1 SWOT-answers regarding specific tools/instruments

SWOTs about one or two specific tools/instruments have been sent in by seven 7 partners. All together eleven different tools/instruments used within RIS are described.

These supporting tools show a great range of variation according to different types and context for the RIS's. Some tools are more advanced and complicated than others but generally they are easy to use. Supporting tools can be different types of financial/economic tools, intermediary orientated with focus on consults or other kind of instruments. Among the tools reported are;

- innovation voucher
- innovation promoting session
- business incubator
- venture capital company
- different events and educations



- different programs supporting innovation
- project work

Only two of the partners have answered SWOT no. two and three. Therefore, these SWOTs have been eliminated from this study.

Some common SWOT-answers concerning specific tools/instruments

Strengths

- Easy to use – Availability - Simple administrative procedure - Easy access to (incubator) services
- Wide scope of themes – Variety in targets
- Promotes new linkages/cooperation between researchers and companies and between different support structures
- Reveals/activates potentials in innovation/entrepreneurship among companies

Weaknesses

- Limited resources - Small overall funding - Small state subsidy
- Requires time and commitment of the company - requires strong promotion strategy and promotion plan - projects demands to high for companies - duration of projects too short
- Evaluation process of project proposals to long

Opportunities

- Increased linkage and cooperation between SMEs - service providers – research institutions
- Increased opportunities for researchers to realize new developments and entrepreneurs to accelerates innovation activities

Threats

- lack of public funding – dependant on public funding
- Bureaucratic barriers – paperwork vs. benefits
- Difficult to attract interest from companies

The answers on SWOT 1 regarding specific tools/instrument are presented in annexes 1:1-1:7.

5.2 SWOT-answers regarding RIS

Four regions (five partners) have sent in more concrete development concepts concerning their RIS, fulfilling evaluation criteria: Growth as a goal, Usability, Non-bureaucratic and Up to date.

Economic conditions and development of business life differs between regions within VBN Innoreg. Consequently, differences between RIS's in the regions are also large. However, there seem to be factors that are common for many of the RIS according to the reported SWOTs. Some of these common factors are presented below.

Some common SWOT-answers concerning RIS

Strengths

- Capacity and potential to produce, exploit and apply new knowledge and innovation
- Suitable conditions for enterprises
- High quality areas and cultural and natural environment

Weaknesses

- Inability to create new jobs, specially to compensate for lost jobs in agriculture



- Lack of a comprehensive financial system in the region
- Lack of skilled labour force in certain fields
- Low level of transferring knowledge, technology and innovation

Opportunities

- Enhancing regional economy by improving and developing the RIS
- Development of expertise in particular fields and specialisation in business
- Enhancing entrepreneurship
- Support business development in cultural activities and tourism
- Cooperation with other regions

Threats

- Structural inflexibility of the public sector and business sector
- Danger of split economic structures and internal division of the region
- Decline in public development resources - low level of EU funds utilisation for development of innovations
- Biased age structure and internal division of the region

The answers on SWOT regarding RIS are presented in annexes 2:1-2:4

The complete descriptions of the RIS in the four regions sent in from the partners are presented in annexes 4:1-4:4.

6. Discussion

There are several different factors influencing the effectiveness of a RIS. Some of the key factors are:

- physical infrastructure
- skilled labour force
- levels of corruption
- strong clusters
- demanding regulations
- a strong science system
- and companies competing on innovation and uniqueness

In the VBN macro region there are large differences between the regions in e.g.:

- size of population and also geographic size
- importance of and development within agricultural, industrial and service sectors
- rate of employment
- level of education

Also performance of national and regional innovation systems (RIS) and consequently level of general regional development differs significantly between regions due differences in:

- industrial profiles
- levels in knowledge creation
- developing and implementing the regional innovation strategies
- support functions in RIS institutional frame-work

However there are also some similarities between many of the regions. Challenges rising in most of the regions in the VBN macro region include:

- ageing population, specially in peripheral areas of the regions
- a shift of economic power from Europe to other macro regions



- increasing competition over talent, within Europe but also globally leading to youth emigration
- increasing concentration of economic activities within countries to e.g. capital regions
- availability of venture capital and seed financing is a problem for many countries in the region

Despite large regional differences VBN regions in many aspects face similar challenges in promoting innovations to ensure sustainable economic performance, industrial competitiveness and employment in the future. This study shows that there are many different tools used in the regions to promote innovation with a great range of variation according to different types and contexts of the RIS's. Some tools are more advanced and complicated than others but generally they are easy to use. Learning from experiences made in other regions, e.g. by adapting instruments used in other regions for use in your own region, may be a way to increase regional innovation activities.

Problems

As we wrote 2006-08-31 in our declaration concerning WP3, we assumed that the supporting tools would show a great range of variation. We can now conclude that some of the partners haven't used/are not using or at least hasn't reported use of any specific instrument or method fulfilling our the evaluation criteria: growth as a goal, usability (the instrument shall be easy and clear to use by both research and SME), non-bureaucratic (few decision making levels) and up to date (relevant in its approach to the issues facing companies of today).

During the project period the unit for External Relations at Umeå University has been reorganised. The driving force for the reorganisation was to create a more effective support organisation with focus on assisting researchers and other personnel at Umeå University and their partners with special services.

The new Unit for External Relations is a much smaller organisation in terms of number of employees and all personnel have to manage several obligations with only limited time. This has had the effect that it has not been possible to carry out activities within the VBN InnoReg project to the extent that was originally planned for. Unfortunately one of the persons that had to leave the unit was the one responsible for the VBN project at Umeå University.

7. Acknowledgements

Elisabeth Nyberg, Eva Isander, Thomas Olofsson, Karl Jäghagen, all at Umeå University, and Anders Lundgren, municipality of Lycksele, were responsible for designing, executing and writing this study.



Annexes

Annex 1:1: SWOT regarding specific tools/instrument used by partner no 5.
Annex 1:2: SWOT regarding specific tools/instrument used by partner no 6.
Annex 1:3: SWOT regarding specific tools/instrument used by partner no 7.
Annex 1:4: SWOT regarding specific tools/instrument used by partner no 9.
Annex 1:5: SWOT regarding specific tools/instrument used by partner no 10.
Annex 1:6: SWOT regarding specific tools/instrument used by partner no 15.
Annex 1:7: SWOT regarding specific tools/instrument used by partner no 16.

Annex 2:1: SWOT regarding RIS from partner no 14.
Annex 2:2: SWOT regarding RIS from partner no 2.
Annex 2:3: SWOT regarding RIS from partner no 20+11.
Annex 2:4: SWOT regarding RIS from partner no 12.

Annex 3:1: Instructions and model for SWOT no. 1
Annex 3:2: Instructions and model for SWOT no. 2 & 3

Annex 4:1: Description of RIS from partner no 14.
Annex 4:2: Description of RIS from partner no 2.
Annex 4:3: Description of RIS from partner no 20+11.
Annex 4:4: Description of RIS from partner no 12.



Annex 1:1 - Partner 5

Seinäjäki Technology Centre Ltd., Finland

Tools:

- Innovation voucher
- Innovation promoting session

The **Seinäjäki Technology Centre (STC)** aims to strengthen the Seinäjoki region as an operating environment that attracts businesses and professionals, and to support new and existing technology companies. STC provide facilities, a company incubator and business development services. STC offer facilities and associated services to companies as well as research and educational organisations at the Frami Technology and Innovation Centre in Seinäjoki. STC is owned by the City of Seinäjoki, the Seinäjoki University of Applied Sciences and the Foundation for Tampere University of Technology.

Innovation voucher and Innovation promoting session are some of the business development Services that are provided by STC.

An **innovation voucher** is a credit note *from the Ministry of Economic Affairs* with a certain value which a SME entrepreneur can use to carry out a small research project. The vouchers system has low administration costs for SMEs and is demand-driven. An entrepreneur with a voucher can decide for himself what kind of research he wants to do.

Innovation voucher - is a financial support to enable small and medium-sized companies (SMEs) to buy knowledge from research organisations

- to solve a specific problem encountered
- to help in innovating business
- to stimulate interaction and exchange between the knowledge suppliers and SMEs.
- to promote new business
- to make it easy for the SMEs to use innovation services

SWOT - Innovation voucher

Strengths

- Voucher can be utilized in wide variety of targets
- Suitable for different kind of companies regardless of size or line of business
- Easy to use
- Activates companies to utilize knowledge intensive business services

Weaknesses

- Local voucher coordinator has to know the local business environment – needs of the companies and the availability of services
- Possible limitations in the use of vouchers

Opportunities

- Especially suitable for SME's
- Increases and accelerates the innovation activities of the companies
- Increases co-operation between SME's and service providers in the long run

Threats

- Threat to become too bureaucratic – paperwork vs. benefits
- Funding – to ensure the continuum of the concept
- Activity of the local voucher coordinators



Innovation Promotion Session – is a systematic method for matching up different fields of knowledge and renewing the business activities in local SMEs. The aim is to promote innovativeness in local SMEs in the Seinäjoki region. A larger scale purpose is to create new business opportunities in the region.

Method

Innovation promoting session for local SMEs can be divided into three phases:

1. Planning of the session. The interface of two (or more) knowledge areas is first discussed and agreed with the management of SME. At the same time the goals for the session are set as well as invited experts from all knowledge areas.
2. Implementation of the session. Session is carried out as a full day event in close cooperation with the SME management, sector-specific experts and intermediate organisation (STC Ltd). A consultant with the knowledge of creative working methods is called in to inspire the participants and to conclude the discussions during the day.
3. Assessment. After the session the summary of the day is revised by the consultant and STC. As a result of the summary some further actions are decided with the SME. These might include e.g. R&D projects, new business ideas, new service concepts, renewed business processes, spin-off – companies, etc. The most promising initiatives are elaborated into development projects.

SWOT - Innovation promoting session

Strengths

- Reveals the innovation potential of the companies
- Systematically harvests the possible innovations
- Process-like method
- Variety of results (from new product/ process innovations to spin-offs etc.)

Weaknesses

- As a process-like method requires time and commitment of the company
- Setting the goals and choosing the experts has to be done carefully – critical for the successful session

Opportunities

- Unutilized sources of innovations – interfaces of different knowledge areas
- Increases the competitiveness of the companies
- Possible new business opportunities

Threats

- If not subsidized, session might become costly
- General attitude towards the session – It's not a typical brainstorming session
- Somebody has to take the responsibility of the results to develop them further



Annex 1:2 - Partner 6

Hermia Business Development Ltd., Finland

Tools:

- Hermia business incubator
- Hermia Ventures

The Hermia Business Development, founded in 1992 is a market-oriented company that specializes in developing of technology companies especially during the initial start-up phase. The company's headquarter is located in Tampere, and branch offices in Helsinki and Amsterdam. Hermia Business Development is one of the key business incubators in Finland, participating in national incubator development program. Majority owner of Hermia Business Development is its personnel. Other owners include Technology Centre Hermia Ltd, Zernike Group, Tampere Technical Society (TTS), Consulting company Jaakko Lehto Oy, as well as private investors.

Hermia Business Incubator – is a business incubator established on the campus of Technical University of Tampere. The philosophy of Hermia is not to provide subsidized real estate, but the advantage of co-locating with the technical university. The incubator is specialised in technology based product and business innovations.

According to Aernoudt (2002) a business incubator's task is to "nurture young firms, help them survive and grow during the start-up period when they are most vulnerable." In addition to premises, business incubators may also provide services such as hands-on management, access to finance, legal advice, operational know-how and access to new markets. Furthermore, according to Aernoudt (2002), "a business incubator's main goal is to produce successful firms that will leave the incubator financially viable and free-standing within reasonable delay."

Aernoudt, R. (2002), Incubators: tool for entrepreneurship?, paper presented at Euram 2002, Stockholm.

SWOT - Hermia Business Incubator

Strengths

- Tampere region incubators working together
- Customers have easy access to incubator services
- Incubator services linked to pre-incubator services and public & private financing
- quality assurance, professionalism, continuous training for incubator managers

Weaknesses

- Limited resources
- Based on public support, difficult to build sustainable market priced services

Opportunities

- Hermia Incubator itself is organised inside a private company
- There is a possibility to build commercial services
- Hermia Incubator is linked with a private start up Fund Hermia Ventures
- Professional staff, deep expertise in company start ups and venture financing

Threats

- Incubator financing relies on public financing,
- public sector does not know how to organise it in a future



Hermia Ventures Ltd. (www.hermiaventures.fi) is a private pre-seed and seed finance company that combines strong business development know-how, know-how in seed funding and business services for technology based start-ups. They invest in innovative technology companies that have strong capabilities to grow and expand their activity. The fund invests in companies with growth potential, good business plan and skilful key team. The fund has no branch or area limitations. The most important objective of Hermia Ventures Ltd. is to increase the value of its portfolio companies.

SWOT - Hermia Ventures Ltd.

Strengths

- Private business angels have formed a fund
- Linked tightly with other Hermia services= money combined with professional business services
- Fund investors may work as mentors for companies financed

Weaknesses

- Small fund, needs more resources quickly
- No public investors yet
- For a new type of fund, Internal working method development still on-going

Opportunities

- Interesting funding model, motivating local potential business angels to invest
- Private financing compensating partly public financing

Threats

- Private investments: Investors are looking for quick results
- Start up fund needs to invest in many cases in order to make profit



Annex 1:3 - Partner 7

Tartu Science Park, Estonia

Tools:

- The Tartu entrepreneurship Week (annual event)
- Introducing business management *Best Practice*

Tartu Science Park Foundation

The Tartu Science Park was founded in 1992 and was the first organization in Estonia set up with clearly stated intention to support innovation. Tartu Science Park is linked to the Estonian biggest university – University of Tartu. The main goal of the Science Park is to provide variety of services needed in the process of R&D commercialization.

Tartu City Government

Tartu, with its population of 100 000, is the second largest city of Estonia. The Tartu City Government has experience in drawing up a Regional Innovation Strategy – Tartu Regional Innovation Strategy 2004-2008 (TRIS).

Supporting tools for RIS by Tartu City Government

Short description of the program:

The Tartu entrepreneurship Week (annual event)

The purpose of the event is to raise awareness of entrepreneurship as a lifestyle amongst students, pupils, citizens target groups and encourage people to become active in this field.

In 2005 in during the Tartu business week more than 40 different events were organized with the participation of 2600 citizens, pupils, students.

SWOT - The Tartu entrepreneurship Week

Strengths

- The event focuses on many different target groups at the same time.
- Wide scope of themes.
- Dissemination of entrepreneurial way of thinking
- Promotes cooperation between different support structures

Weaknesses

- Event requires very strong promotion strategy and promotion plan.

Opportunities

Threats

- It is difficult to attract companies to participate in the event as the keyword – entrepreneurial way of thinking – is not very attractive to companies

Introducing business management *Best Practice*

Raise awareness and know-how of entrepreneurs about different management systems and introduce interesting experiences of different companies (in Estonia) in these fields. Demonstrate, how systematic and consistent application of overall principles of management

systems can guarantee success and well-being of company and its different interest groups (clients, employees, supplies)



SWOT - Introducing business management

Strengths

- Practical approach with theoretical background
- Learning through other's experiences

Weaknesses

- The framework of the event may paralyse innovative thinking among target companies (learning from others instead of creating new ways of operating)

Opportunities

Threats

- Many companies in Estonia are not very keen on exchanging experiences on good practices.



Annex 1:4 - Partner 9

Latvian Technological Centre, Latvia

Tool:

- The Market oriented research program

Latvian Technological Centre (LTC), the first technological centre in Latvia, was established in 1993. The founders of the Centre were Riga City Council, Latvian Academy of Sciences, Institute of Physical Energetic and Associations of Latvian Scientific and Technical Societies. The Technological Centre offers services and support to technology-oriented firms. LTC participated also in the creation of the Latvian National Innovation Strategy.

Short description of the program:

The Market oriented research program is an activity of the Ministry of Education and Science. The goal of the program is to turn the interest of researchers to industrial needs. Program supports research for the development of new products and technologies mainly in technological areas. The projects should be realized in research institutions. The participation of industrial partner in the realization of project is compulsory.

The program is acting since 1993 and supports 50-80 projects per year. The average size of project is 20 000-30 000 Euro, duration of projects – 1-2 years.

SWOT - The Market oriented research program

Strengths

- Creates new linkages between researchers at state institutions and companies
- Gives opportunities to researchers to work on needs of industry
- Shorten the gap between academic science and applied research
- Potential for entrepreneurs to exploit research results for development of new products and technologies
- Simple administrative procedure
- high success rate for applications

Weaknesses

- The size of the program is not sufficient
- State subsidy to project is small
- Duration of the projects in many cases is too short for reaching the goals
- Evaluation process of the project proposals sometimes is too long
- The demands for projects are too high for companies
- Companies are weakly informed about the program

Opportunities

- Opportunities for entrepreneurs to get researcher's assistance to examine new ideas for the development of new products
- Strengthening the linkage between companies and research institutions
- Potential for the establishment of new spin-off companies
- Increase of remuneration for researchers
- Opportunities for researchers to realize new developments

Threats

- The gap between science and industry remains large
- Inefficient use of public resources to reach the goals of the program (sometimes)
- No interest from industrial partners in further development of the product after the end of project



Annex 1:5 - Partner 10

The State regional development Agency, Latvia

Tool:

- National Support Program "Business (entrepreneurship) development

State Regional Development Agency (SDRA)

SRA was established in 2004. In addition to administering the Regional Fund, the Agency implements national and international regional development programmes, develops methodologies, conducts researches, disseminates information and performs other tasks in the area of regional development. One of the programmes is the Latvian National Programme that provides financing and support for local governments in "Specially Supported Territories" to introduce new technologies and create business-friendly environment.

Short description of the program:

For the period of 2004–2006, the **National Support Program "Business (entrepreneurship) development** in especially supportable areas" was developed in conformity with the Regulation No.70/2001 of the European Community regarding support to small and medium size enterprises.

The purpose of the grant scheme "Support to productive investment for business development in especially supportable territories" is to co-finance business development projects in order to foster the development in especially supportable areas and to promote economic activities in these territories. This would enable reduction of unfavourable disparities among state territories and would provide for balanced development of the state. Funding of this grant scheme is approx. 8 million LVL (approx. 11,428 million EUR)

Sub-objectives of program:

- promote creation of new working places and preserving existing;
- increase of salary and living standard of local population;
- promote sharp development of entrepreneurship;
- promote implementation of innovation and new technology;
- increase entrepreneurship competitiveness;
- promote development of production with high added value.

The due public support for the funding of a development project within the grant scheme "Support to productive investment in business development in especially supportable territories" does not exceed 80.000 LVL (aprox. 115.000 EUR). For projects implemented within the grant scheme, the intensity of public funding does not exceed 50% of the total project-related costs. The private co-financing is not less than 50%. The maximum term for project implementation is 2 years, the total project-related costs may not exceeding 160.000 LVL (aprox. 228.000 EUR)

The main contribution of the program is seen in the development of the private sector. Its considerable prevalence over the public sector presents evidence of a rise in resident's economic activity, improvements in business environment and the development of entrepreneurship.

The State Regional Development Agency (SRDA) has been approved as the manager of this ERDF grant scheme.

SWOT - National Support Program "Business (entrepreneurship) development



Strengths

- development of entrepreneurship;
- implementation of innovation and new technologies;
- development of products and services with high added value;
- creation of new working places and preserving existing;
- increase of salary and living standard of local population.

Weaknesses

- small overall funding for this programme;
- insignificant funding for one project to implement high technologies;
- evaluation process of project proposals takes too long;
- duration of projects in many cases is too short to reach remarkable goals in innovation field.
In most cases projects are directed to obtain new machinery, but not aimed to invest funding in new ideas.

Opportunities

- in future allocate and attract more financing resources for projects
- improve and simplify procedures of evaluation of projects
- supporting projects with higher added value
- improvement of consulting and information procedures
- bigger role of SRDA in evaluation of projects, because intermediary institutional commission has no proper competence for adequate decision making

Threats

- local impact of implemented projects
- projects are not long-term;
- still big bureaucratic barriers exists. Entrepreneurs who overcome difficult procedures can obtain financing;
- projects which obtain funding mostly are not towards innovation.



Annex 1:6 - Partner 15

Innovation- and Trendcenter Bentwisch, Germany

Tools:

- project work
- public relations

The **Innovation- and Trendcenter (ITC) Bentwisch** is the technology and industry centre of the Mecklenburg-Vorpommern region. The aim of the Centre is to develop the regional economic environment. The ITC's task is to rent out production, office and handicraft areas to innovative founders of new businesses and young firms but also to enterprises for research, development, service, handicraft and production. The ITC also offers management consultancy concerning all questions of business start-up and development for founders of new businesses and young enterprises. The ITC is at 80% financed by a special fund of the federal government supporting the new federal states.

SWOT - project work

Strengths

- strengthen the network-idea international relationship and competences to use by the SMEs
- better conditions for SMEs in the TC

Weaknesses

- work more continued
- should work in several projects

Opportunities

- several networks to improve competences and to get experiences in different fields for different leasers (SMEs);
- more rental income with new leasers

Threats

- dependant of benefit funds
- need personal recourses to implement network and projects

SWOT - public relations

Strengths

- strengthen the public sense with scientific lectures, conferences
- more present in media,
- organize project network

Weaknesses

- work continued

Opportunities

- more public sense ensure long-term
- more entrepreneurs and rental income
- entrepreneurs give good references to win new public sense

Threats

- for the region is more effective to start common activities with other innovative centres for a better sense in German industrial areas und Europe



Annex 1:7 - Partner 16

Brandenburg ec. Development Board, ZAB, Germany

Tool:

- Innovation assistant

ZAB Brandenburg Economic Development Board

Brandenburg Economic Development Board (ZAB) is responsible for facilitating trade and cooperation between Brandenburg and other countries as well as for attracting investments to Brandenburg.

ZAB is the main contact point for all issues relating to business settlements, innovative medium-sized companies and technology-oriented start-up firms. ZAB is Brandenburg's central contact for inquiries concerning innovation and (external) business promotion as well as energy, technology transfer and cluster management. ZAB functions as a one-stop agency dealing with individual clients on a project-to-project basis. The Regional Centres offer clients on-the-spot consultation service.

Description of supporting tool : **Innovation assistant**

Programme for funding the first-time-employment of university graduates in small and medium sized enterprises (SMEs)

Conditions:

- date of university degree has to be recent, i.e. not older than 12 – 24 months at the moment of the employment
- the person must not have been employed (within a commercial company) for more than 12 months between the graduation date and the date of employment

Funding details:

- first year: 50% of the monthly salary, max. 20,000 EUR
- second year: 40% of the monthly salary, max. 10,000 EUR
- two "Innovation Assistants" can be funded consecutively
- start-up companies (not older than 5 years) can get funding for 2 innovation assistants parallel and another 2 consecutively

SWOT 1 - Innovation assistant

Strengths

- Easy in application and administration.

Weaknesses

- Graduates, who have been working for more than 12 month in a commercial company, can not be funded.

Opportunities

- Fresh knowledge will be easily transferred into the SME via the graduates. Ideas and Concepts for innovation projects can be initialized. This can be the start (or the increase) of the growth of the company.

Threats

- Usage of the instrument mainly by very potent companies (this not the fact at the moment)



Annex 2:1 - Partner 14

Regional Planning Council Havelland-Fläming, Germany

Regional Planning Council Havelland-Fläming

The Regional Planning Council Havelland-Fläming is the spatial planning organisation of the Havelland-Fläming region.

SWOT-analysis of the rural RIS-level shows the key strengths, weaknesses, opportunities and threats of Havelland-Fläming region that are relevant for the competitiveness of the rural parts of the region.

Strengths

- Capacity and potential to produce, exploit and apply new knowledge and innovation
- High potentials in client and service oriented solutions
- High diversity in carrying out task with a broad variety of individual options (tailored solutions)
- High mobility in acquiring orders from locations outside the region (up to 300 km)
- Suitable conditions for running and enlarging the enterprise at their present locations (sites and building for different equipments)
- High quality rural areas and cultural and natural environment

Weaknesses

- Inability to create compensate lost jobs in agriculture
- Lack of a comprehensive financial system in the region
- Lack of skilled labour force in certain fields
- Lack of skilling/training opportunities for school graduates
- Small access to transfer knowledge, technology and innovation
- Weak regional image of rural parts

Opportunities

- Enhancing role in regional economy by improving and developing the rural level of RIS of Havelland-Fläming Region
- Development of expertise in particular fields and specialisation in business
- Enhancing entrepreneurship
- Support of local/regional in social and cultural activities by SstE Cooperation within the regions

Threats

- Structural inflexibility of the public sector and business sector
- Enterprises operate outside of public consciousness
- Danger of divided economic structures and internal division of the region
- Decline in public development resources
- Dominating role of SstE-leaders
- Employees as generalist



Annex 2:2 - Partner 2
Council of Tampere Region, Finland
SWOT-analysis

Council of Tampere Region

The Council of Tampere Region is a joint municipal authority maintained by 33 municipalities, and has 455 000 inhabitants within its area. The Council operates as regional development and regional planning authority according to the principles of local self-government. The Council of Tampere Region sets out to strengthen the competitive potential of its region both nationally and internationally. The Council has contributed to the transformation of Tampere region from industrial to knowledge-based region.

SWOT-analysis shows the key strengths, weaknesses, opportunities and threats of Tampere region that are relevant for the competitiveness of the region.

Strengths

- Capacity and potential to produce and exploit new knowledge and innovation
- Versatile production structure and state-of-the-art technology in special fields
- Suitable conditions for firms to locate to the area and accessibility is good
- High quality urban areas and cultural and natural environment
- Strong and dynamic regional image

Weaknesses

- Inability to create enough jobs
- Lack of a comprehensive financial system in the region
- Penetrating international markets
- Subsidiary companies dominate the economy
- Lack of skilled labour force in certain fields
- Inability to transfer knowledge, technology and innovation from Tampere to other subregions and to commercialize it

Opportunities

- Enhancing dynamism in economy by improving and developing the RIS of Tampere Region
- Development of expertise in particular fields and specialisation in business
- Enhancing entrepreneurship
- Business in cultural activities and tourism
- Cooperation with other regions

Threats

- Structural inflexibility of the public sector and business sector
- Continuous lack of skilled labour force
- Biased age structure and internal division of the region
- Dependency on big leading companies
- Decline in public development resources



Annex 2:3 - Partner 20 + 11
Podlaskie Region, Poland
SWOT-analysis

Podlaskie Voivodeship Marshal's Office

The Podlaskie Voivodeship consists of 17 municipalities and has 1,2 million inhabitants. The Podlaskie Voivodeship Marshal's Office is a self-governmental administration unit of the Podlaskie voivodeship. The Voivodeship Marshal is the head of the Office and official supervisor of officials and managers of self-governmental administration units of the voivodeship.

University of Bialystok

The University of Bialystok was founded in 1997 from the Branch of the Warsaw University. The University of Bialystok has experience in leading the Regional Innovation Strategy project in Podlaskie region.

The essential instrument for the estimation of the situation regarding region's economy is its SWOT analysis. Using this method, strengths, weaknesses, opportunities and threats were evaluated. The most important are shown in the table below.

Strengths

- large number of students and pupils in schools in the region;
- strong position of universities and other HEIs in Podlaskie region, especially private ones;
- privatization of state-owned enterprises with participation of strong foreign investors;
- unemployment rate is lower than average in Poland;
- relatively fast integration vertical and horizontal integration in main sectors of region economy;
- "benefits of underdevelopment" in industry, agriculture and ecology; lack of reconstruction costs for old sectors of industry and agriculture;
- citizens' aspirations to increase their level of education and investment in their children's education. It causes increase in quality of human capital and increase in innovation expectations;
- agriculture – high quality of dairy products, high quality of solid?, better than average in Poland structure of farms, ecological production, high level of innovation in milk-industry, fruit production sector, strong position of organizations supporting agriculture
- industry – well developed production for trans-border trade: agricultural machinery, textiles; well developed SME sector: enterprises use UE funds to develop and strengthen themselves; development of machinery industry, reconstruction of textile industry;
- services – well developed financial system, dynamic development of retail trade, fast growth of educational services institutions, innovative trade and fast transfer of marketing innovations in a services, quite strong medical and social services

Weaknesses

- general: lack of institutional forms of innovations (e.g. clusters), technological parks as well as agencies and centres of innovation in initial phase of development,
- weak position of R&D in enterprises' strategies and structures,
- low rate of Internet based technologies implementation in enterprises,
- lack of technology educated personnel and too many graduates of economics and marketing, knowledge of foreign languages still too weak,
- lack of patents, royalties, know-how, etc.
- low level of skills
- low share of high-tech products in export
- lack of technology transfer from high-developed countries;



- lack of co-operation with innovation leaders from EU and other high-developed countries;
- agriculture: unsteady development of agricultural industry, weaknesses of agricultural services, low level of capital equipment in agriculture, low level of qualifications in agriculture, lack of clusters in agriculture, lack of institutional forms of farmers participating in R&D;
- industry – low level of high technologies utilisation, domination of “imitation” strategy, lack of own capital, which could finance innovative activities, low activity of R&D departments in enterprises, foreign capital’s interest in innovation investments in the region still too low, low level of exploitation of border proximity; lack of cooperation between universities and enterprises in creation of innovations;
- services – in general low quality and seasonal activity of tourist, agrotourist, hotel and gastronomical services; complicated and long credit procedures – low level of utilisation;

Opportunities:

- in general: ability and necessity to imitate Scandinavian strategies of innovation development;
- necessary conversion of university functions aimed at development of cooperation with enterprises in the region and increase of their utility for RIS;
- tendencies of relocation of enterprises to the new EU member states, closer to EU border;
- access to Cross-Border EU programmes, east border and Baltic Sea Region oriented – useful in realizing innovative investments;
- development of modern transport system in VIA BALTICA corridor – road, railway and air transport;
- chances for locating modern biotechnological and ecological investments in Podlaskie region;
- stronger integration of east Polish regions and lobbying at development of innovation policy in east Poland;
- agriculture – multifunctional development of agricultural areas; ecological methods of agricultural production; use of EU funds;
- industry: location of new investments; modernization of SME activity using EU funds; development of cooperation between collages and new SMEs; potential setting up of clusters in forestry, food and textile industry;
- services – diversity of services offered in the region; ability of cross border development; potential ability of creation of complementary services packages; ability of private-public partnerships creation in service clusters; innovation potential and entrepreneurship in tourist sector.

Threats:

- low level of EU funds utilisation for development of innovations in the region;
- tendencies to treat Podlaskie region as a nature sanctuary and “Green lungs of Poland”
- low level of internal demand for high-tech products in the region;
- difficulties in cooperation between Polish and Belarussian;
- competitiveness of Baltic States and their experience in the field of innovation policy can cause rivalry in locating investments;
- agriculture – traditional forms of farming, differentiation of economic conditions between farms; weak technical infrastructure and farms’ equipment in fixed capital; lack of support institutions for agricultural sector;
- industry – low development of ICT infrastructure; limited potential of markets; rising operation costs; low quality of law regulating cross-border cooperation;
- services – strong competitiveness of services sector; lack of cohesion in Polish law system; lack of regional policy for supporting modern services.



Annex 2:4 - Partner 12
Kaunas University of Technology, Lithuania
SWOT-analysis

Kaunas University of Technology

The Kaunas University of Technology, the largest technical university in the Baltic States, is the second largest institution of higher education in Lithuania. The University is competitive in developing innovative technologies, e.g. mechatronics, nanotechnologies, and environmental technologies. The University is actively involved in the development of knowledge-based society in Lithuania.

Technopolis

Technopolis is a public company at the start of establishing a Science and Technology Park. Technopolis is a production complex of knowledge-based business enterprises and research, providing a chance of entering the world market for innovative medium and small enterprises of Kaunas.

RIS SUPPORTING TOOLS IN KAUNAS REGION

SMEs in Kaunas region have comparatively wide range of institutions and sources that offer support for innovations and similar activities. We have several types of supporting tools: a) administrative support tools; b) consulting services; c) financial support.

The SWOT analysis of innovations-supporting tools could be described as following:

Strengths

- wide range of supportable actions and themes;
- good financial assistance size and intensity;
- clear structure of management of the tool in local level

Weaknesses

- comparatively complicated application process;
- long procedures of application evaluation;
- bureaucratic way of organization of monitoring and supervision;
- negative image of tool because of signs of possible corruption inside responsible agencies;
-

Opportunities

- simplification of whole national policy and system of financial support for SMEs;
- participation in larger EU-wide competitions for financial assistance.

Threats

- change of the policy of national support for SMEs policy and restriction/cut of support scope;
- rise of mistrust of SMEs and declining interest regarding the tool.

Annex 3:1 - Instructions, reminders and models for SWOT no 1.

UMEÅ UNIVERSITY
Unit for External
Relations
Elisabeth Nyberg
Eva Isander



SURVEY
July 1st 2006

Partner: University of Umeå, Unit for External Relations
Contact: Elisabeth Nyberg, Eva Isander

The Unit for external Relations is an actor in the Regional Innovation System (RIS) in the county of Västerbotten, Sweden. Our commission is to support and strengthening the cooperation between SMEs (Small and Medium-sized Enterprises) and researchers at the University of Umeå.

First and second survey

During the pilot project we will focus on "supporting tools" for RIS. These supporting tools will most probably show a great range of variation according to different types and context for the RIS's. Supporting tools can be different types of financial/economic tools, intermediary oriented with focus on consults or other kind of instruments. But, we will wait with structuring into specific groups, until our first survey is analyzed. There might be other topics, more relevant to the tools the partners use.

Our contribution to the project will be to make a survey on supporting tools used among partners and evaluate our findings in order to find best practice concerning these tools. The survey findings and evaluation will then be the fundament for the seminars.

First survey

Please fill out the SWOT analysis, see the SWOT encl.



Evaluation

The unit for external relation will evaluate the instruments according to the following topics

- Growth as a goal: The instrument shall have the purpose of creating growth for SMEs through research, preferably governed by demand
- Usability: The instrument shall be clear and easy to use by both FoU and SMEs
- Non-bureaucratic (few decision-making levels)
- Up-to-date, relevant in its approach to the issues facing companies of today

Evaluation method:

Questionnaire and SWOT analysis, which each individual partner bases their evaluation of the tool's function upon. Comprehensive and summarised SWOT analysis which is compiled and conducted by the University of Umeå, External Relations.

Goal of evaluation:

To establish which instrument or instruments has/have the best qualities to create growth. What strengths, weaknesses, opportunities and threats are there in order to make this possible?

Formulation of questionnaire and basis for SWOT:
2006-04-28-05-28

Send out questionnaire and SWOT:
2006-06-01-07-01

Collection of replies:
2006-08-21-28



Umeå University
External relations

2006-08-14

Sent to the Partners 11th of aug-2006

The purpose of the SWOT is to get at picture over what kind of financial instruments or methods the partners use to stimulate innovation and growth.

We are looking after Best practice" therefore we kindly ask the partner to choose 2 instrument or methods that the partner find useful to stimulate growth in his och her own region. In the end this will give us an interesting insight in how and what kind of instrument or methods that are useful in creating growth. We are sure that the learning process in this will be useful for all of us.

We are looking forward to read through your swots and explanations about your chosen instruments or methods. In the next step our purpose will be that together discuss the question how this ca stimulate growth and how this can be done successfully.

Please let us know/mail if you don't have got the SWOT and the document connected to it yet. This is a reminder – many of you have already got both document and SWOT.

With kind regards!

Elisabeth & Eva



Please fill out one SWOT for each of the two instruments or methods.
Read the text in the doc before starting. Feel free to write down
clarifying text on a separate paper. Kind regards and good luck!

STRENGTHS

What do this instrument or
method do well?
What do others see as
its strengths?

WEAKNESSES

What could be improved?
What are others likely to
see as its weaknesses?

OPPORTUNITIES

What are the good oppor-
tunities with it?
What trends could it take
advantage of?

THREATS

What trends can be of harm?
What threats do the
instruments or method
expose?

Annex 3:2 - Instructions and models for SWOT no 2 & 3.

Dear partner,

Enclosed you will find 2 swots. The first one included in this document is named **"SWOT 2"** is focused on the Strengths and Opportunities of the 2 instruments/methods that you described in SWOT 1 sent out earlier in July 13th. Please notice that we would like you to answer the questions below. Questions that mentioned under each topic.

Strengths and Opportunities

"Strengths": inhouse professions and functions, e.g. economists, administrators, researchers, lawyers etc;

-How many are working with your choosen instrument and/or method today?-

"Opportunities": are external possibilities resulting from that are results of political decisions and/or other decisions in your setting.

Threats and Weaknesses

Crises and problems often stimulate problem-solving capacity of an organization. It is therefore important to ask how problems (threats and weaknesses) are linked to the Two instruments and/or methods you have choosen in order to be best practice.

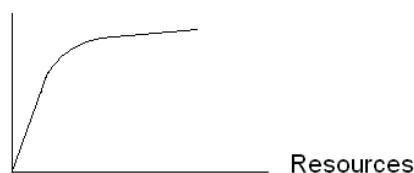
- What are your plan to overcome these problems?-

To measure success:

- How will factor of success, linked to your instrument and/or method, be defined and measured? for example: Quantity of incoming projects? Quantity of innovations? Quantity of new companies (start ups)? You can describe your answer easily by using a curve like the model example below. Or if you are measuring your results in qualitative terms please write down your reflections.

It can be important to think about used resource in terms of personal and financing your organization is using and the expected results. Additionally it can be interesting to have an idea of how much these results will grow with a larger organization. An example of a model of that is illustrated in the figure below, but there can of course be other relationships. However, there may be a good investment to support more recourses, but there is no guarantee that the bigger the better.

Result





Financial support

- *How would you prefer your client to apply for financial support/fund? How well does this fit your instrument/method? -*
- *Describe the chain of decision used when evaluating the applications. How does the decision making process work?/ In what way? -*
- *What kind of financial support/funds are your instrument/method? -*
- *What demands are your clients to fulfil in order to receive financial help? -*
- *What is the average amount of the financial help? -*

Your own best practice

Please write a description of a best practice that fits the demands and opportunities of today and tomorrows demands and opportunities. You do it with help of using a **SWOT 3**. Please evaluate the differences between your choosen best practice (described in SWOT 1) and your own best practice.

- *How would it be possible, in your opinion, to implement your own best practice in your organization? -*



SWOT 2

Focused on Strengths and Opportunities

Strengths

Weaknesses

Opportunities

Threats



SWOT 3

Please, write down your own suggestion of a Best Practice model/instrument

Strengths

Weaknesses

Opportunities

Threats

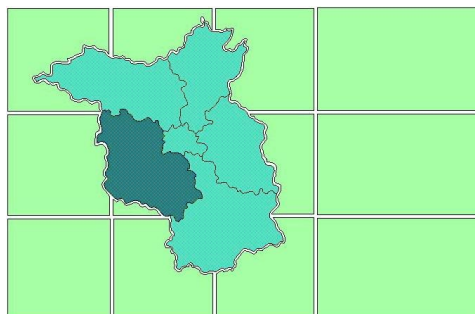
Annex 4:1 - Partner 14
Germany Regional Planning Council Havelland-Fläming



**VBN InnoReg: Strengthening Via Baltica Nordica macro-Region through
Transnational Cooperation for Regional Innovation Promotion**

WP1: RIS analysis

**The Preliminary Description of the Havelland-Flaeming Region
and its Regional Innovation System**





Summary Description of the Region

Demographics and Economic Performance of the Havelland-Fläming Region

With its 738 000 inhabitants (2004) Havelland-Fläming Region is the most populated of the five regions in the State of Brandenburg covering 28% of the whole state's population. Due to its direct neighbourhood to the German capital Berlin it will be the only region where an increasing population can be expected as long as 2020 with a following decrease down to 715 682 inhabitants until 2030. More than 32% of the state's population will then concentrate in Havelland-Fläming Region. Almost a third of the state's GDP is generated in this region, and also the region offers with 21 the greatest number of branch-oriented competence centres (resp. 32% of the state) representing 15 of 16 important key branches and some global players like Daimler Chrysler, Ebay and Rolls Royce. Along with the economic strength goes a dominant role in science and research with one university two colleges and two famous research centres (Max Planck/Fraunhofer) in Potsdam. This makes the region ranking among the three most prospering regions in the new states of Germany.

But the region has two different faces, growth and strength meet decline and structural weakness with increasing distance from Berlin. While Potsdam and its neighbours have an unemployment rate of below 10% other parts of the region go up as far as 24%. The region's agriculture decreased from an employment rate of 15% to ca. 2% without any compensation in industry or services. Migration of well-educated young people (less than 5% of an age group leaving secondary school is found in their rural municipalities one year after finishing school) leads to first gaps on the regional labour market. In the rural parts of the region the rate of people younger than 15 is 5 point lower than the average whereas the rate of people older than 65 is 10 points higher than the region's average

Governmental Structures

Regions in Germany are not defined clearly. In the state of Brandenburg officially "region" is linked to the "planning regions", created by act in 1993. A region acts as a board, with the responsibilities concentrated to a regional assembly and its president, elected from municipal and county bodies, but administrated by a small regional planning department, and financed totally by the state. Their main task is to work out spatial plans and programmes below the state level, but for additional tasks it needs the votes from the assembly and the permission of the state's authorities, too. Different other regional operating authorities (economic development, urban and rural development) with enormous budgets do not leave much space for development, forced by the regions beside her planning duties and regularly the region cannot compete in "mainstream issues" within this structure.



The Havelland-Fläming region therefore concentrates on projects outside these mainstream issues. With the first consultations before the project start of VIA BALTICA NORDICA InnoReg it was clear that the rich innovative potentials in the region represented by the new defined key branches in key locations will not be in the focus of the region's participation in this project – therefore the region's RIS has to be split into different facets. The region's focus is the so-called "grey zone", the zone of locations and branches outside the new outlines of economic development in Brandenburg and outside of any public support at the moment: The "grey zone" is determined by small towns up to 8 000 inhabitants and villages down to 250 inhabitants outside the "cores of growth" and the locations (competency centres) of key branches. Moreover the "grey Zone" is represented by a remarkable potential of "SstE" ("smallest" enterprises), which concentrate predominantly on building and construction sub-branches. To respect the limitation given by the regional budget within the project's total frame and the short time, the region's RIS concentrates on these sub-branch with an additional analysis of small enterprises working on social/health affairs in the rural parts, respecting in particular the demographic change towards an rapidly rising rate of older people .

SWOT-analysis

SWOT-analysis of the rural RIS-level shows the key strengths, weaknesses, opportunities and threats of Havelland-Fläming region that are relevant for the competitiveness of the rural parts of the region.

Strengths	Weaknesses
<ul style="list-style-type: none"> – Capacity and potential to produce, exploit and apply new knowledge and innovation – High potentials in client and service oriented solutions – High diversity in carrying out task with a broad variety of individual options (tailored solutions) – High mobility in acquiring orders from locations outside the region (up to 300 km) – Suitable conditions for running and enlarging the enterprise at their present locations (sites and building for different equipments) 	<ul style="list-style-type: none"> – Inability to create compensate lost jobs in agriculture – Lack of a comprehensive financial system in the region – Lack of skilled labour force in certain fields – Lack of skilling/training opportunities for school graduates – Small access to transfer knowledge, technology and innovation – Weak regional image of rural parts



<ul style="list-style-type: none"> – High quality rural areas and cultural and natural environment 	
<p>Opportunities</p> <ul style="list-style-type: none"> – Enhancing role in regional economy by improving and developing the rural level of RIS of Havelland-Fläming Region – Development of expertise in particular fields and specialisation in business – Enhancing entrepreneurship – Support of local/regional in social and cultural activities by SstE – Cooperation within the regions 	<p>Threats</p> <ul style="list-style-type: none"> – Structural inflexibility of the public sector and business sector – Enterprises operate outside of public consciousness – Danger of splitted economic structures and internal division of the region – Decline in public development resources – Dominating role of SstE-leaders – Employees as generalist

Regional Innovation System

Defining the Rural Level of RIS

Havelland-Fläming Region defines the rural level of its RIS as follows:

Innovation system is comprised of technological, competitive, managing and social elements and the relationships between these elements. The elements and the relationships interact in production, diffusion and services, more determined by practical experiences than the use of new knowledge. It is likely that access and the use of new knowledge can not only contribute to a stronger market position but also widen economic activities in related markets. The knowledge can be skills and competencies, new ideas and concepts, new technological or organisational advances. And it is likely, too, that only few improvements in the innovation system can lead to far better improvements in competitiveness, regarding present management structures in these “SstE”.

It is obvious, that improvement of the innovation system depends lesser on an institutional framework, but first on the attitude of “SstE” entrepreneurs, his willingness to participate in a SWOT-analysis and in contacts to external experts. It is not an exception that these entrepreneurs react not very co-operative in contacts with the institutional horizon outside their branch, related to experiences with building permissions, funding applications, requiring credit or other money from banks etc. The first step of any conclusions from the presently running SWOT-analysis will focus on the situation found in the “SstE” and its individual demand – so far there will be any agreement on further support.



The institutional frame-work around the “SstE” in the state of Brandenburg can be described very heterogenous, operating from municipal to federal level. It seemed useful to select from these levels only those institutions, which operate locally and regular and close contacts to SME/”SstE”: the regional operating technology centres together with the economic development boards of the three counties of the region.

2.2 Existing Plans and Main Activities Concerning the RIS and Competitiveness

The development of the region regarding the maintenance of locations and industrial zones is almost completed, as about 50% of all industrial areas are not settled yet. Recent recommendations follow less spatial reasons but day-to-day opportunities. A regional plan doesn't exist as a legally based guideline, but only as a pure map. Different information tools are operated by different institutions on the three levels (state, regional, municipal). With the state's decision to concentrate on the slogan “strengthen strengths” new locations do no longer play a central role, as it seems guaranteed to support any location within the constellation of “competency centres” and “cores of growth” with a remarkable rate of public funding.

But still the region's objective to use indigenous economic potentials is not officially cancelled, and as resistance against the new policy grows from the municipalities not considered in this policy, the economic potentials in rural areas might generate more public support. The region's decision to concentrate on few branches located in the “grey zone” is supported now by a number of 10 municipalities, which will support strongly the SWOT-analysis.

With the Technical College of Wildau (TFH Wildau) a competent partner has been found to start the SWOT-analysis from 11/2006 onward, offering not only the analysis (investigations by questionnaires, interpretation of results) but also direct consultations as pilots to improve this level of RIS in Havelland-Fläming region (see also WP 3).

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Annex 4:2 - Partner 2
Finland Council of Tampere Region



**VBN InnoReg: Strengthening Via Baltica Nordica macro-Region through
Transnational Cooperation for Regional Innovation Promotion**

WP1: RIS analysis

**The Preliminary Description of the Tampere Region and Its
Regional Innovation System**



COUNCIL OF TAMPERE REGION

Summary Description of the Region

Demographics and the Economic Performance of the Tampere Region

The population of Tampere region is approximately 465 000. That is 8,9% of the total population in Finland. It is estimated that the population will continue to grow until year 2030 because of migration mainly from other regions in Finland but also from abroad. The largest migrating group is students. Most of them move to Tampere to study in the polytechnics and universities. The population is concentrated in the Tampere sub-region where two thirds of the total population live. (The Council of Tampere Region 2006)

In the year 2005 employment rate was 68,1 in Tampere region and the national average was 68,0. In the same year the unemployment rate was a bit higher than the national average. In Tampere region unemployment was 8,9 when the national figure was 8,4. There is a growing need for skilled labour force. It has been estimated that in five years the demand for labour will grow especially in the service sector. (Statistics Finland 2006)

The region has a higher level of education than the average for the whole country, and the main groups of migrants to the area are those either possessing or aspiring to a high level of education. There are numerous educational institutions that produce qualified work force for public and private sector. Of all those over 20 years old 68,0% have a degree. The percentage of population in the region that have a tertiary level degree, a category consistent with the classifications of UNESCO's ISCED, is 27,1. (Statistics Finland 2006)

There are many national and international mega trends that shape the regional economy and its challenges. One important national trend that affects Tampere region is the ageing population. The change in the age structure also is a European trend. Ageing of the labour force poses threats to the availability of labour and causes changes in the labour market. (The Council of Tampere Region 2006)

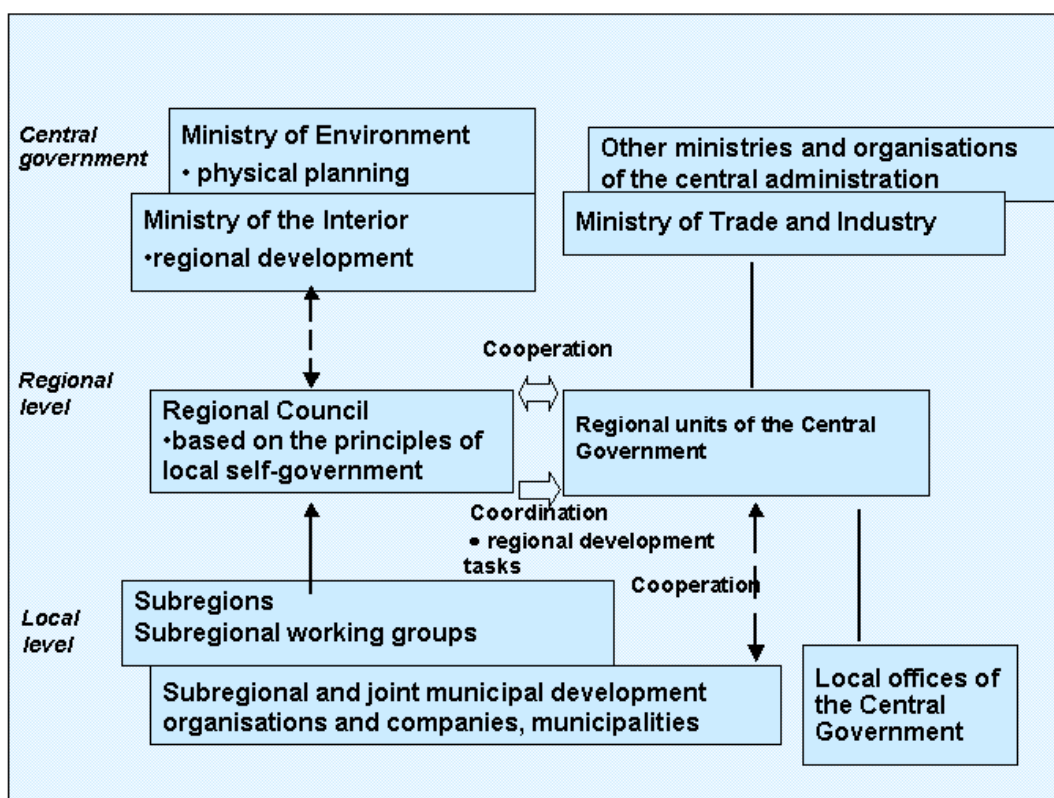
Many of the companies located in the region are operating on a global scale. The region has a total number of more than 200 000 jobs in 23 000 enterprises and the public sector. The third of the jobs in the private sector are in manufacturing or constructional industries. The majority of the manufacturing industries are geared either directly or indirectly to exports. Information and communications technology manufacturing industry exports over 85 percent of the total output. Metal industry, paper industry, machine construction, mechanical wood processing, pulp and paper industry all export over 50 percent of their total output. The main branches of industry are wood processing, metalworking, mechanical engineering and automation, while other growth sectors of importance for employment include information technology and health

technology. The traditional industries in the region are textiles, leather goods, rubber products and chemicals. Most of the jobs are in the private services, 32,4 %. Other percentage distributions of the population by occupation are manufacturing 31.7%, public services 31,0 %, primary production 3,0 % and others 1.9%. The Tampere Region accounts for 8.2% of Finland's gross domestic product. (The Council of Tampere Region 2006)

Most of the firms located in the Tampere region are small or medium size firms. Over 70 percent of the firms employ five persons or less. Approximately 9,6 percent of all jobs are in the ten biggest firms. Nokia is the biggest employer in the region. Next come UPM-Kymmene, Metso, Finland Post and Metsäliitto Group Corporation. (The Council of Tampere Region 2006)

Governmental Structure

In Finland the actors of regional development function in three levels: national, regional and local level. Figure 1 shows the actors that are responsible for regional development in Finland.



Figure

1: Regional development actors

SWOT-analysis

SWOT-analysis shows the key strengths, weaknesses, opportunities and threats of Tampere region that are relevant for the competitiveness of the region.

<p>Strengths</p> <ul style="list-style-type: none"> – Capacity and potential to produce and exploit new knowledge and innovation – Versatile production structure and state-of-the-art technology in special fields – Suitable conditions for firms to locate to the area and accessibility is good – High quality urban areas and cultural and natural environment – Strong and dynamic regional image 	<p>Weaknesses</p> <ul style="list-style-type: none"> – Inability to create enough jobs – Lack of a comprehensive financial system in the region – Penetrating international markets – Subsidiary companies dominate the economy – Lack of skilled labour force in certain fields – Inability to transfer knowledge, technology and innovation from Tampere to other subregions and to commercialize it
<p>Opportunities</p> <ul style="list-style-type: none"> – Enhancing dynamism in economy by improving and developing the RIS of Tampere Region – Development of expertise in particular fields and specialisation in business – Enhancing entrepreneurship – Business in cultural activities and tourism – Cooperation with other regions 	<p>Threats</p> <ul style="list-style-type: none"> – Structural inflexibility of the public sector and business sector – Continuous lack of skilled labour force – Biased age structure and internal division of the region – Dependency on big leading companies – Decline in public development resources

Figure 2: SWOT of the Tampere region

Regional Innovation System

Defining the RIS

Tampere Region defines innovation system as follows:

Innovation system is comprised of the elements and the relationships between these elements. The elements and the relationships interact in the production, diffusion and use of new knowledge. This new knowledge is exploited for practical use including



commercial use. The knowledge can be skills and competencies, new ideas and concepts, new technological or organisational advances. (Lundvall 1992, p. 2), (Cooke 1997, p. 478), (Schienstock & Hämmäläinen 2001, p. 75)

Which organisations, institutions and actors are included in the innovation system depends on the level of analysis and is also case-specific. The level of analysis can be e.g. local, sectoral, regional or national.

Key organisational elements on the regional level include: firms and their R&D-units, universities and research institutes, educational institutes, public and private finance, public sector that is responsible for policies, intermediary organisations, other public and private organisations that affect innovation, and the relationships between these elements.

Preliminary description of the RIS of Tampere region

All the actors in the regional innovation system of Tampere Region know their role in the system whether it is knowledge production, diffusion or use. However there are some overlaps in the system and different actors may have more than just one role.

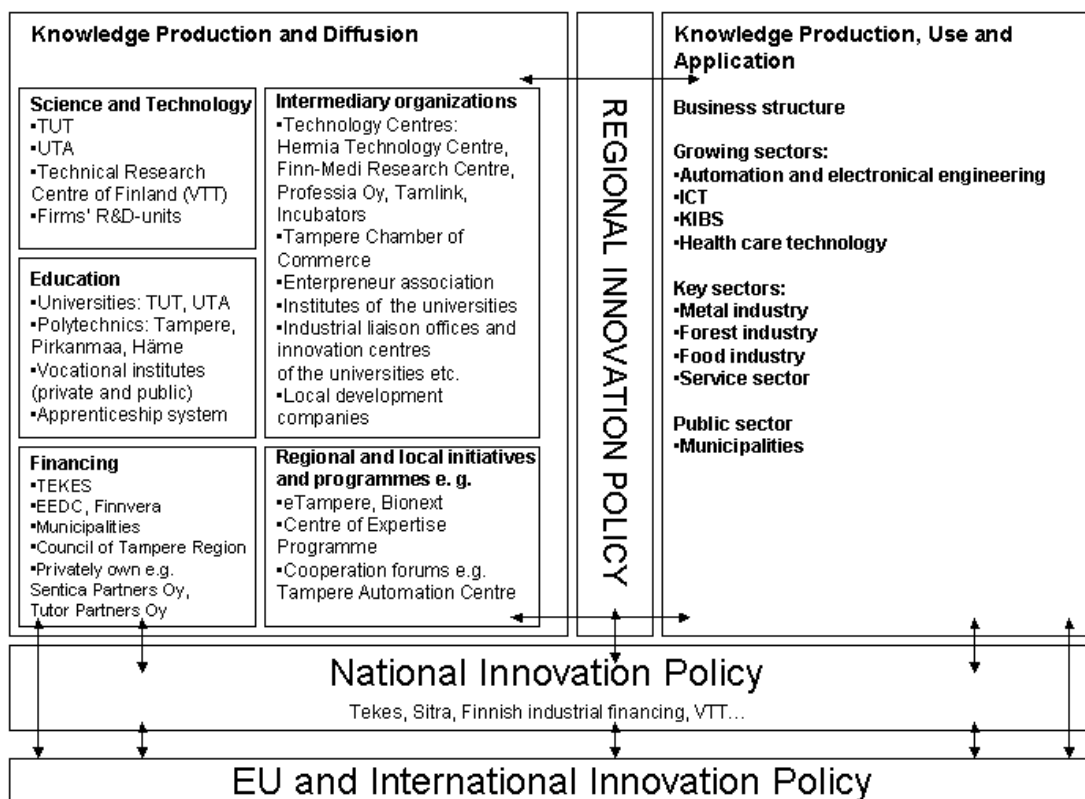


Figure 3: Key elements of the regional innovation system of Tampere Region, modified from (Kautonen et al. 2004, p. 187)

Figure 3 shows the key elements and actors and their key roles in the regional innovation system of Tampere Region.

Science and technology, research and development – Producing new knowledge

The two universities and other higher education institutions form the backbone of the regional innovation system, together with large R&D-oriented companies (Kautonen et al. 2004, p. 177). Tampere has a strong indigenous science and technology base, which meets the needs of industry due to a long tradition of university-industry cooperation (Schienstock et al. 2004, p. 141).

Tampere University of Technology, TUT has strong and long-standing cooperation relationship with industry providing training and research services. The University has approximately 12 000 students and 1 800 people work there. The University specialises in the education of Bachelors of Science in Architecture and Technology, Masters of Science in Technology and Architecture and Doctors of Technology, Architecture and Philosophy. TUT's total funding was 105 million euros. Approximately 50 per cent of the funding consisted of external funding from sources such as Tekes, industry, the Academy of Finland and EU projects. TUT has one Centre of Excellence in Research, appointed by the Academy of Finland and the Ministry of Education, the Signal Processing Research Group. (TUT 2006)

University of Tampere, UTA, has traditionally been oriented towards the humanities and towards educating a workforce for the public sector. The cooperation with industry is not as strong as at TUT but there are also important fields of cooperation as medicine, hypermedia, computer science and information sciences (Kautonen et al. 2004, p. 178). There are some 15 400 degree students and 2100 employees, of which approximately one half in teaching and research. (UTA 2006)

VTT, Technical Research Centre of Finland, provides high-end technology solutions and innovation services. VTT specialises in applied research, concentrating on improving product and process technologies. There are five research areas present in Tampere: mechanical automation, construction, plastic and fibre technology, security technology and metallurgy, and information technology. VTT employs 250 persons in Tampere. (Kautonen et al. 2004, p. 178)

There are numerous educational institutions in Tampere Region which provide skilled labour force for private and public sectors. There are Pirkanmaa Polytechnic, Tampere

Polytechnic, Häme Polytechnic with one unit, many vocational institutions and also contracts of apprenticeship are provided.

Many big firms have their R&D-units in Tampere. The most significant is Nokia. Nokia has an important part of the private sector's knowledge base in Tampere Region, because it has one of its largest research centres located there. (Kautonen et al. 2004, p. 179).

Knowledge diffusion: bridging institutions

In the 1980s and 1990s a number of intermediary and financial institutions were established in the innovation support infrastructure of the Tampere Region (Schienstock et al. 2004, p. 143). The most important intermediary organisations are Hermia Technology Centre, Finn-Medi Research Centre, Professia Ltd and Innovation Research Development Tamlink Ltd. There are also several institutions that function as bridges between higher education and industry. These include for instance Digital media Institute and Optoelectronics Research Institute. (Schienstock et al. 2004, p. 143)

There are many public and private organisations that finance innovation activities. These include for example municipalities, the Council of Tampere Region, and privately own Sentica Partners Ltd, Tutor Partners Ltd and other private venture capital companies National organisations that operate in Tampere Region regarding finance and innovation support are Tekes (Finnish Funding Agency for Technology and Innovation), Finnvera and regional EEDC (Regional Employment and Economic Development Centre. These are the three most important public innovation support organisations for companies (Kautonen et al. 2004, p. 183).

There are many public initiatives and programmes that support innovation. The most important at the moment are Bionext, Creative Tampere, Centre of Expertise Programme, and subregional and local initiatives. Also important programmes have been e.g. eTampere to enhance information society development.

Users of knowledge

Innovations are essential for productivity. Both the public and the private sector are important users of innovations. Firms and especially big ones also contribute to the regional innovation system by producing new knowledge in interaction with other actors of the system.

Public sector influences the system with its policy programmes. There are local, regional, national and EU-policies that all have an effect on innovation. All the actors of

the innovation system have important links and relationships in and outside the region. These relationships are important in production, diffusion and use of new knowledge. The relationships can be strong or weak and formal or informal.

Existing plans and main activities concerning the RIS and competitiveness

The development of the region is systematic and programmed. The plan for the region is the strategic document for regional development. This indicates the goals, objectives and focal areas for development. The regional plan serves as a guideline in decision-making at regional, sub-regional, and municipal level and is of help in the allocation of resources for the achievement of objectives defined together. (The Council of Tampere Region 2006)

The regional programme defines the lines of action for the implementation of the regional plan. The regional programme presents means for implementation and the available means of funding. Sub-regional and sectoral plans are applied to and incorporated into the regional programme. The implementation of the sub-regional programme includes guidelines for measures, overall projects, implementers and monitoring. Responsibility for implementation rests with different actors in the municipalities, sub-regions and region. Improving the competitiveness and the innovation capacity is the goal of the regional plan and programme. All the thematic and sectoral programmes to be implemented in the region e.g. Centre of Expertise Programme and The Regional Centre Programme (RCP) are mainstreamed with the regional plan. (The Council of Tampere Region 2006)

In recent years there has been growing interest in analysing and improving the regional innovation system. The Regional Programme of Innovative Action in West Finland Alliance area, WFA-Inno (2004-2006) co-financed by the ERDF (PRAI), tended to strengthen the innovation activities in the region to the provision of technological know-how and technology foresight activities and to enhance diffusion of knowledge. During the programme a regional innovation council was established. This council consists of academia, municipalities and private sector, and it's still operational. (The Council of Tampere Region 2006)

Within a new initiative, VBN Innoreg co-financed by BSR Interreg III B, started in 2006, the regional innovation system will be developed and linked more closely to the regional innovation council's activities and development in the region. The interregional project consortium, Via Baltica Nordica Development Zone, aims to develop a joint innovation approach in the regions of the Baltic Sea. (The Council of Tampere Region 2006)



Models for describing, communicating and developing the system

The on-going regional plan focuses on setting priorities to the business, R&D, human capital, infrastructure and regional image in the region. The regional plan will be carried out by all those organisations that agree with its policies. They all will be challenged to contribute to the future success of the region. The Council of Tampere Region acts as a motivator of cooperation, a promoter of interests of the region and as a funding coordinator of important projects. (The Council of Tampere Region 2006)

VBN Innoreg co-financed by BSR Interreg III B produces models for describing, communicating and developing the regional innovation system.

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Annex 4:3 - Partner 20 + Partner 11

Partner 20, Podlaskie Region, Poland

Partner 11, University of Bialystock, Poland,

RIS in Podlaskie Region

1. Summary description of region

1.1. Basic information about the voivodeship

Podlaskie voivodeship is situated in the north-east part of Poland. Its area is 20,180 km² (6,4% of the entire country, 6th position among Polish voivodeships) and is inhabited by 1,202,727 people. Population of the voivodeship constitutes 3.1% of the total population of the country, which places the voivodeship in the 14th position. Over 700,000 people (59.2% of the population) live in cities and towns. A low level of urbanisation of the region is the reason for the low density of population, which amounts at 59.4 persons per 1 sq. km (average for Poland is 122). The voivodeship borders on three other voivodeships: warmińsko-mazurskie, mazowieckie and lubelskie, and from the east it abuts on Byelorussia and Lithuania.

Age structure of inhabitants of Podlaskie slightly differs from the country's average; there is a higher rate of people in pre-productive (27.8%; country's average: 26.3%) and after-productive age (1.4%; country's average: 14.2%). Gradual decrease in the number of inhabitants of rural areas and their ageing, has been noticed in the last few years. It leads not only to increased deformation of demographic structure, but also to a number of other economic and social effects; it is a threat to functioning of farms and affects economic development and standards of living. Other negative demographic patterns in the region are: excessive youth emigration to cities (especially those with higher education), deformation of sex structure, which causes a decrease in number of marriages, and increase of the number of families with single parents.

One of characteristic features of Podlaskie region is a high rate of employment in agriculture (37.4%). The structure of vocational preparation of farmers is not satisfactory. Agricultural population with higher education accounts only for 1.5% of the total region's population, those with medium vocational education – 11%, and with elementary education or completely without it – 63%. This education structure does not favour the development and rationalisation of production and transformation of agricultural farms and it also makes vocational reorientation as well as growth of entrepreneurship difficult. Another 12.9% of the region's population is employed in market services (which places Podlasie in 13th position in the country), while 19.9% is employed in industry and building industry (15th position).

Unemployment rate of 15.5% placed the voivodeship in the 5th position in the country. The average unemployment rate in Poland was about 17.6%. Also, percentage of women in the population of unemployed rose (from 50% to 58.7%). People aged 24 years and between 25 and 34 constituted the largest group of unemployed. With regard to education, the largest group of unemployed consists of people with elementary and primary technical education.

Among the main features of Podlaskie voivodeship there are also: slightly diversified land relief, lower than the average quality of agricultural production space, average level of afforestation and enlarged hydrographic network. The main rivers are the Narew and the Biebrza. In the northern part of the voivodeship there is a lake district. Natural environment retained much of its natural state. The evidence of this fact is the Europe's largest complex of swamps and primeval forests, which has not been transformed yet by human activity. 4 National Parks, 4 landscape parks and Augustowska primeval forest are of special historic, recreation and ecological value. From the midst of all natural advantages, the most important feature is localisation of the entire voivodeship within the functional area of "Green Lungs of Poland". Landscape and environmental values of Podlasie as well as its monuments, create great possibilities for tourism and recreation development, especially in the countryside. Tourism industry is considered by some as a possible driving force of the region's economy. Tourism can be a "driving wheel" and the source of orders for other branches of industry and services. There are over 290 tourist objects, that have 14.8 thousand beds at tourists' disposal. However, this tourist base represents rather low standard and transport connections don't enable people to move quickly and safely from one place to another. What's more, tourist staff needs more experience and education to meet customers' needs.

Podlaskie voivodeship is of agricultural character. Among the main features of agricultural production space are: low average quality of soils and high instability of climate. In plant production, like in the

entire country, low intensive plant growing prevails, including mainly cereal crops and potatoes. Average area of a farm amounts to some 12 ha. It is much more in relation to other Polish regions. Another characteristic feature of Podlasie agriculture is that the ratio of area of arable land per one person is the highest among Polish regions. However, the indicator of agricultural production area valorisation, which includes quality of soils, climate, period of vegetation, puts our region in the last position in the country.

Voivodeship's industry is also connected with a dominant agricultural sector, as food production and processing (dairy, meat, fruit and vegetable, brewing and spirit industry) have key position in the region's economy.

Currently there are 88 915 registered economic entities in Podlaskie voivodeship, 85 732 of which are private units. Among private entities small and medium enterprises (e.g. sole traders) prevails (over 72 071 entities). These small and medium enterprises constitutes a great chance for development of the region. Sector of small and medium enterprises allows to employ persons leaving agriculture, which allows to maintain relatively low, as for the typically rural region, unemployment rate.

Competitiveness of firms in Podlaskie region is rather low. It is the result of a long period of underinvesting, and that is why many local entrepreneurs are not as competitive as entrepreneurs in other regions. Investing in new technologies as well as improvement of employees' qualifications must be supported to increase region's competitiveness. Among barriers against success one can indicate lack of necessary funds. That is why creating different sources of funds and grants is so important.

Activation of non-credit support institutions is relatively small in Podlaskie Voivodeship. Regional business support firms offer rather narrow scope of services.

1.2. Governmental structure

Podlaskie is divided into 14 administrative units of NUTS 3 level ("powiaty" in Polish language), 3 cities playing the same role as the above, 118 communes and 3,275 administrative units of NUTS 4 level (village poviats). Settlement network includes 36 towns and 3,950 villages. Bialystok is the capital of the voivodeship and its largest city (292,000 citizens). From the midst of other towns, small centres (population of up to 20,000) prevail, and there are only two cities - Suwalki and Lomza – where population is over 60,000. Regional administrative structure consist of Podlaskie Marshall's Office and Podlaskie Voivodshop Office. Podlaskie Marshall's Office is a part of local authorities structure. It is a main institution of regional development policy and manages with regional programmes financed with EU funds support. Podlaskie Voivodshop Office is a part of governmental administration. It is a control institution for local authorities structures in the region.



1.3. SWOT analysis of RIS

The essential instrument for the estimation of the situation regarding region's economy is its SWOT analysis. Using this method, strengths, weaknesses, opportunities and threats were evaluated. The most important are shown in the table below.

Strengths	Weaknesses
<ul style="list-style-type: none"> - large number of students and pupils in schools in the region; - strong position of universities and other HEIs in Podlaskie region, especially private ones; - privatization of state-owned enterprises with participation of strong foreign investors; - unemployment rate is lower than average in Poland; - relatively fast integration vertical and horizontal integration in main sectors of region economy; - "benefits of underdevelopment" in industry, agriculture and ecology; luck of restructurization costs for old sectors of industry and agriculture; - citizens' aspirations to increase their level of education and investment in their children's education. It causes increase in quality of human capital and increase in innovation expectations; - agriculture - high quality of dairy products, high quality of solid?, better than average in Poland structure of farms, ecological production, high level of innovation in milk-industry, fruit production sector, strong position of organizations supporting agriculture - industry - well developed production for trans-border trade: agricultural machinery, textiles; well developed SME sector: enterprises use UE funds to develop and strengthen themselves; development of machinery industry, restructurization of textile industry; - services - well developed financial system, dynamic development of retail trade, fast growth of educational services institutions, innovative trade and fast transfer of marketing innovations in a services, quite strong medical and social services. 	<ul style="list-style-type: none"> - general: lack of institutional forms of innovations (e.g. clusters), technological parks as well as agencies and centers of innovation in initial phase of development, - weak position of R&D in enterprises' strategies and structures, - low rate of Internet based technologies implementation in enterprises, - lack of technology educated personnel and too many graduates od economics and marketing, knowledge of foreign languages still too weak, - lack of patents, royalties, know-how, etc. - low level of skills - low share of high-tech products in export - lack of technology transfer from high-developed countries; - lack of co-operation with innovation leaders from EU and other high-developed countries; - agriculture: unsteady development of agricultural industry, weaknesses of agricultural services, low level of capital equipment in agriculture, low level of qualifications in agriculture, lack of clusters in agriculture, lack of institutional forms of farmers participating in R&D; - industry - low level of high technologies utilisation, domination of "imitation" strategy, lack of own capital, which could finance innovative activities, low activity of R&D departaments in enterprises, foreign capital's interest in innovation investments in the region still too low, low level of exploitation of border proximity; lack of cooperation between universities and enterprises in creation of innovations; - services - in general low quality and seasonal activity of tourist, agrotourist, hotel and gastronomical services; complicated and long credit procedures - low level of utilisation;
Opportunities:	Threats:
<ul style="list-style-type: none"> - in general: ability and necessity to imitate Scandinavian strategies of innovation development; - necessary conversion of university functions aimed at development of cooperation with enterprises in the region and increase of their utility for RIS; - tendencies of relocation of enterprises to the new EU member states, closer to EU border; - access to Cross-Border EU programmes, east border and Baltic Sea Region oriented - useful in realizing innovative investments; - development of modern transport system in VIA BALTICA corridor - road, railway and air transport; - chances for locating modern biotechnological and ecological investments in Podlaskie region; 	<ul style="list-style-type: none"> - low level of EU funds utilisation for development of innovations in the region; - tandencies to treat Podlaskie region as a nature sanctuary and "Green lungs of Poland" - low level of internal demand for high-tech products in the region; - difficulties in cooperation between Polishand Belarussian; - competitiveness of Baltic States and their experience in the field of innovation policy can cause rivalry in locating investments; - agriculture - traditional forms of farming, differentiation of economic conditions between farms; weak technical infrastructure and farms'



<ul style="list-style-type: none"> – stronger integration of east Polish regions and lobbying at development of innovation policy in east Poland; – agriculture – multifunctional development of agricultural areas; ecological methods of agricultural production; use of EU funds; – industry: location of new investments; modernization of SME activity using EU funds; development of cooperation between collages and new SMEs; potential setting up of clusters in forestry, food and textile industry; – services – diversity of services offered in the region; ability of cross border development; potential ability of creation of complementary services packages; ability of private-public partnerships creation in service clusters; innovation potential and entrepreneurship in tourist sector. 	<ul style="list-style-type: none"> equipment in fixed capital; lack of support institutions for agricultural sector; – industry – low development of ICT infrastructure; limited potential of markets; rising operation costs; low quality of law regulating cross-border cooperation; – services – strong competitiveness of services sector; lack of cohesion in Polish law system; lack of regional policy for supporting modern services.
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2. Regional Innovation System

2.1. Definitions

Research and Development (R&D) – creative activity undertaken. Research and development is a term covering three activities: basic research, applied research, and experimental development.

Research and development by a market producer is an activity undertaken for the purpose of discovering or developing new products, including improved versions or qualities of existing products, or discovering or developing new or more efficient processes of production. [OECD Glossary of statistical terms. SNA]

Any creative systematic activity undertaken in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this knowledge to devise new applications. Includes fundamental research, applied research in such fields as agriculture, medicine, industrial chemistry, and experimental development work leading to new devices, products or processes. [UNESCO Statistical Yearbook, UNESCO, Paris, 68 and 65, Chap. 5.].

Innovation activities are all scientific, technological, organizational, financial and commercial steps which actually, or are intended to, lead to the implementation of innovations. Some innovation activities are themselves innovative, others are not novel activities but are necessary for the implementation of innovations. Innovation activities also include R&D that is not directly related to the development of a specific innovation. [OECD Glossary of statistical terms]

Technological product and process (TPP) innovations comprise implemented technologically new products and processes and significant technological improvements in products and processes. A TPP innovation has been implemented if it has been introduced on the market (product innovation) or used within a production process (process innovation). TPP innovations involve a series of scientific, technological, organisational, financial and commercial activities. The TPP innovating firm is one that has implemented technologically new or significantly technologically improved products or processes during the period under review. [Oslo Manual, *The Measurement of Scientific and Technological Activities, Proposed Guidelines for Collecting and Interpreting Technological Innovation Data*, second edition, OECD/EUROSTAT 1997]

A technologically new product - is a product whose technological characteristics or intended uses differ significantly from those of previously produced products. Such innovations can involve radically new technologies, can be based on combining existing technologies in new uses, or can be derived from the use of new knowledge.. [Oslo Manual, *The Measurement of Scientific and Technological Activities*,



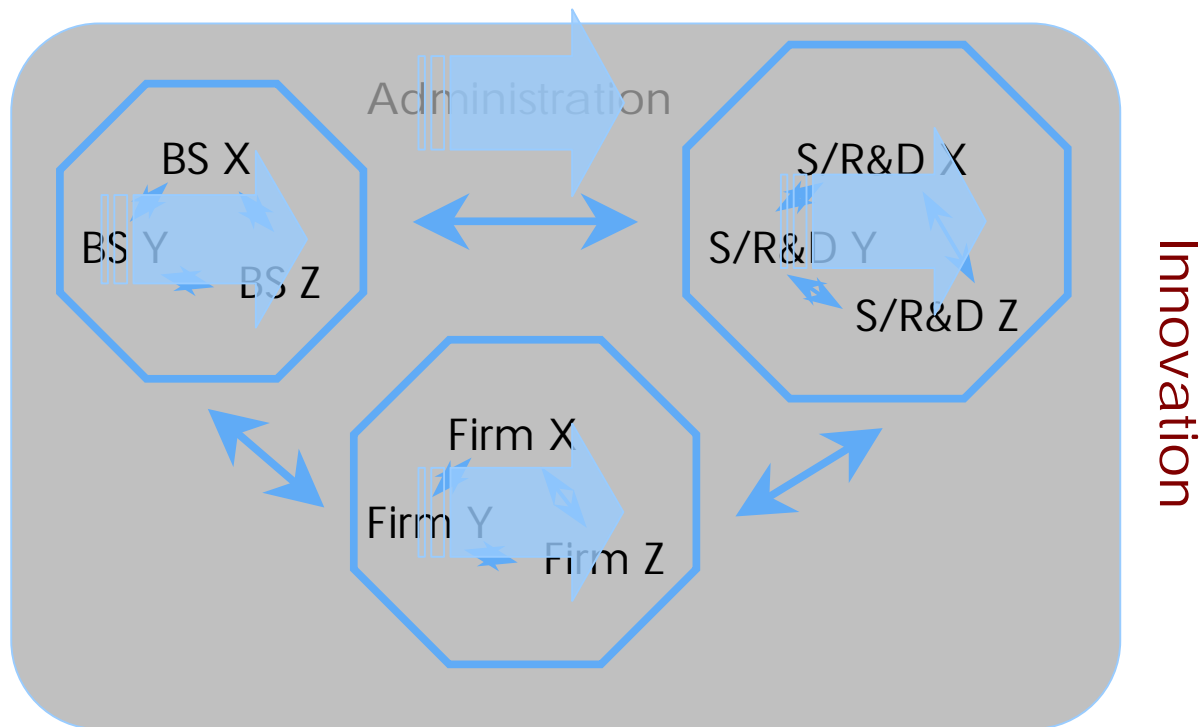
A technologically improved product is an existing product whose performance has been significantly enhanced or upgraded. A simple product may be improved (in terms of better performance or lower cost) through use of higher-performance components or materials, or a complex product which consists of a number of integrated technical sub-systems may be improved by partial changes to one of the sub-systems [Oslo Manual, *The Measurement of Scientific and Technological Activities, Proposed Guidelines for Collecting and Interpreting Technological Innovation Data*, second edition, OECD/EUROSTAT 1997]

Technological process innovation is the adoption of technologically new or significantly improved production methods, including methods of product delivery. These methods may involve changes in equipment, or production organisation, or a combination of these changes, and may be derived from the use of new knowledge. The methods may be intended to produce or deliver technologically new or improved products, which cannot be produced or delivered using conventional production methods, or essentially to increase the production or delivery efficiency of existing products. [Oslo Manual, *The Measurement of Scientific and Technological Activities, Proposed Guidelines for Collecting and Interpreting Technological Innovation Data*, second edition, OECD/EUROSTAT 1997]

2.2. Preliminary description

Idea of RIS is based on existing and planned relations between key actors of RIS. Simplified model of RIS in Podlaskie region is presented on picture below.

Regional Innovation System concept adopted for Podlasie region



BS X

Business Support organisation

Firm X

Firm

S/R&D X

Science/Research & Development organisation

Administration

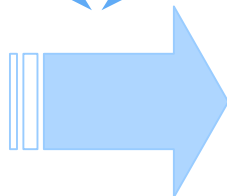
National, regional and local authorities



Relations/connections within the network (business support network, business sector network, science and R&D sector etc.)



Relations/connections between networks.



Direction of network's strategy, direction of national, regional and local policy.

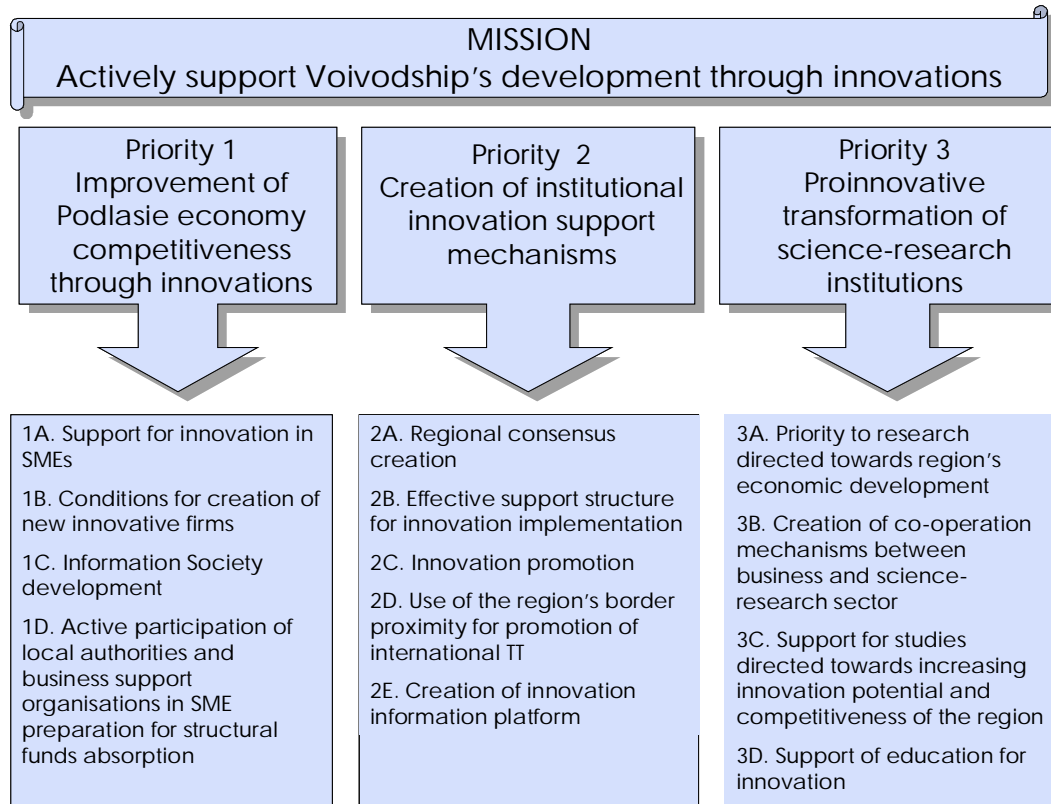
Regional Innovation System in a given region may be created as a result of implementation of Regional Innovation Strategy – this is mainly the case in Central and Eastern European countries.

Regional Innovation Strategy project in Podlasie (RIS-Podlasie) ended on 31st December 2004 with completion of the strategy document. The Regional Innovation Strategy of Podlaskie Voivodship was accepted by the regional council on 21st March 2005

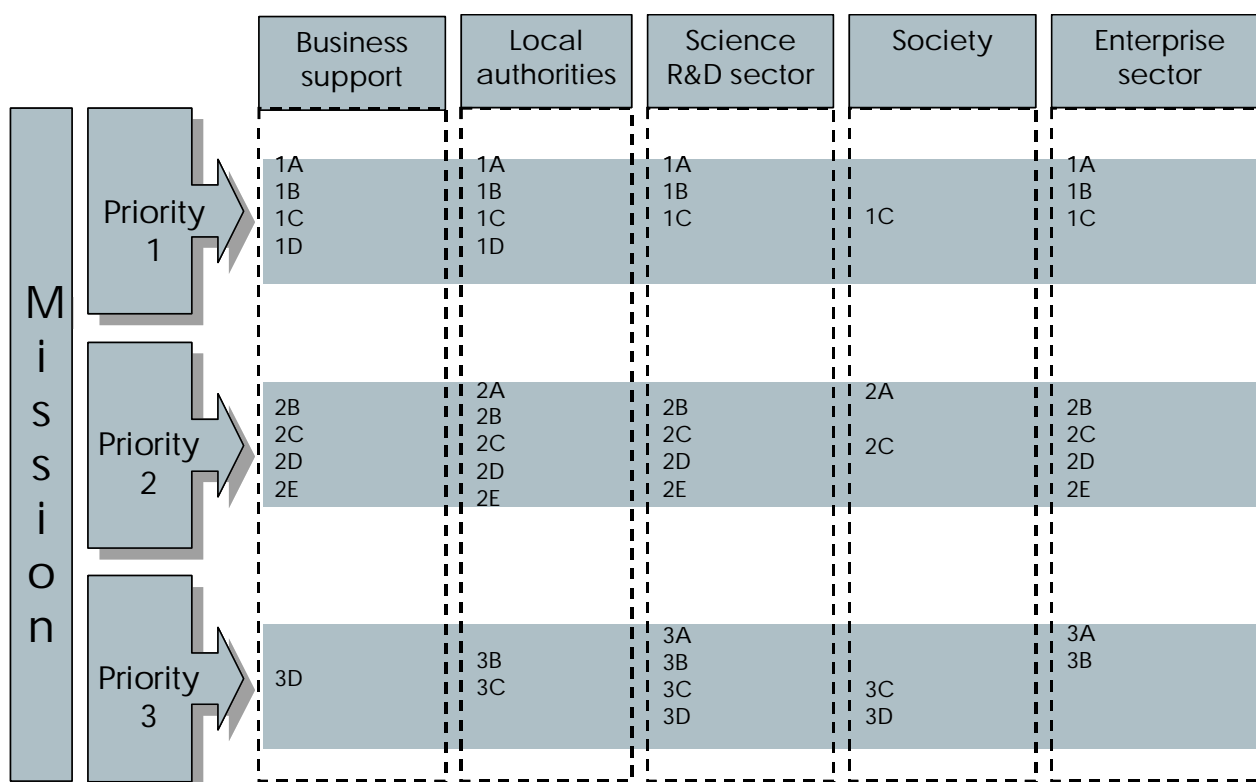
Regional Innovation Strategy in Podlasie is intended to:



- build solid partnership between scientific units and industry,
- help to raise competitiveness of SMEs through introduction of new technologies
- change focus of education and research towards innovation.



Connection between the RIS-Podlasie priorities and innovation system participants



2.3. Key players of the region's innovation system.

To key players of Podlaskie RIS can be included:

- regional (voivodship) and local (cities, towns, etc) authorities;
- universities;
- R&D institutes;
- R&D departments;
- financial institutions;
- consulting enterprises;
- enterprises;
- regional development agencies;
- economic chambers and associations;
- technological parks;
- foundations and associations for regional development;
- centers of technology transfer;
- advisory (consulting) centres;
- creativeness and development associations;
- centres of entrepreneurship support;

Institutions of creation, implementation and promotion of innovations:

1. Institutions of science and technology – dealing with creation of a new knowledge having educational functions. In Podlaskie region can be put to the sphere: Polish Academy of Science Department of Mammals Research in Białowieża, two Departments of Vet Hygiene in Łomża and Białystok, 14 private collages, (7 in Białystok, 3 in Łomża, 2 in Suwałki, 1 in Siemiatycze and 1 in Bielsk Podlaski).
2. Centers of entrepreneurship support (training & consulting, consulting and advisory points, career offices), supporting development of entrepreneurship, self-employment of unemployed people, increasing competitiveness of SME, local loan and guarantee funds.

In Podlaskie region works:

- Podlaska Regional Development Foundation (PRDF), which department is Regional Training Center in Białystok,
- 6 local supporting centers of PRDF (in Augustow, Bielsk Podlaski, Hajnowka, Monki, Siemiatycze i Sokółka),
- 2 centers of Scientific Society For Organization And Management in Zambrow and Białystok,
- 1 local supporting center of Regional Development Agency „ARES S.A.” in Suwałki,
- 1 local supporting center of The Polish Teachers' Union in Łomża,
- 2 local supporting centers of Entrepreneurship Development Foundation in Grajewo, and Suwałki,
- 1 local supporting center of Society of Economic Education, Entrepreneurship and Labour Market Support in Łomża,
- 1 local supporting center of Society for Entrepreneurship Promotion in Białystok,
- 1 local supporting centers of Białostocka Foundation of Personnel Education in Białystok.

There are five Career Offices operating at colleges and universities in Podlaskie Region. Moreover, there are 6 local loan and guarantee funds (4 in Białystok, 1 in Łomża and 1 in Suwałki). There is also one venture capital in Podlaskie Region. There are also economic complexes supporting SME offering them premises and wide range of services in the region (industry parks, entrepreneurship incubators, innovation centres, technological parks, technopoles, economic spheres, craft centres, business centres). Six entrepreneurship incubators are located in Podlaskie region (in Augustow, Bielsk Podlaski, Monki, Siemiatycze, Sokółka and Suwałki). Moreover, there are two centers of innovations and technology transfer at University of Białystok and Białystok Technical University. Suwałska Special Economic Zone was set up in 1996. There is also Science and Technology Park in Suwałki.

Educational system has developed in 90s. Increased number of colleges. Increased also number of students. There is also wider range of educational services. Now among science and technical area institutions we can put 16 academies, universities and colleges in Podlaskie region. There are almost 50 thousand students in Podlaskie region. The largest institutions are Białystok Technical University (30,5% of students) and University of Białystok (28,6% of students). Education in colleges and universities is divided into 2 levels: 3 years (Bachelor degree) and 2 years (master degree). Studies take place in three systems: full-time studies and part-time studies. Full-time studies at public Universities and academies are free of charge. Part-time studies at public universities and academies and all kinds of studies at private colleges are payable. Now main trends in educational system is developing incessant education.

2.4. Participation of the key players in national and international networks

System of supporting SME in Podlaskie region is a part of a national system. It is aimed to increase competitiveness of SME. National System of Services for SME (NSS) is divided into three levels: national, regional and local. National institution is Polish Agency For Enterprise Development. In regions NSS is realized by Regional Financial Institutions, regional institutions managing implementation of regional programs. Local level is realized by specialized (advisory, training etc.) institutions.

In Podlaskie region Podlaska Regional Development Foundation is regional part of NSS. It is a foundation aimed to support SME in Podlaskie region. Its activities are concentrated on filling lacks in the system of supporting SME, like offering high quality consulting services, coordinating regional trade fairs



and exhibitions, implementing regional and local strategies, setting up incubators in the region, informing about access to European Union funds, help in finding sources of financing development of SMEs.

Local NSS institutions in Podlaskie region are:

1. Białostocka Foundation of Personnel Education,
2. Polish-Lithuanian Chamber of Commerce,
3. Scientific Society For Organization And Management, Bialystok,
4. Entrepreneurship Development Foundation in Suwalki,
5. Regional Agency of Restructurization „ODNOWA” s. z o.o.,
6. Agriculture and Tourist Chamber in Suwalki,
7. Regional Development Agency ARES S.A. w Suwałkach,
8. Scientific and Technology Park Poland East.

2.5. Most relevant and useful models for describing the innovation system

We think that the concept of the Regional Innovation System should take into account also the Network Alignment concept.

Nick von Tunzelmann, *Network alignment in the catching-up economies of Europe* [in:] *The Emerging Industrial Structure of the Wider Europe*, eds. F. McGowan, S. Radošević, N. von Tunzelmann., Routledge 2004, p.23

The 'network' component of network alignment supposes that modes of governance are in reality nowadays more complex than the polar extremes of markets, hierarchies and states, while the 'alignment' component brings in the additional complexity of linking not just within networks but between networks developed for different purposes. Network alignment in brief means that different elements are pulling in similar directions, even when their purposes differ, but with the frequent case of network misalignment, the various elements will be pulling in contrasting and often contradictory directions.

While the argument is more general than for the transition countries, and can be applied to catching-up in Western Europe as well as Central and Eastern Europe (CEE), it is the transition process which brings out the issues at their starkest. Transition is most often looked upon as a sideways movement to create the bases for sustained catching-up by formerly centrally planned economies, in which market-based systems will come to dominate. With freer markets, catching-up has been expected to follow semi-automatically, with the catching-up itself being a linear process of more or less imitating what western countries have already undergone. This chapter makes two basic objections to that stylization. First, it argues that market-based systems will not be sufficient to induce semi-automatic sustained growth. Second, it argues that the development process is multilateral and multidimensioned rather than linear. This leads ultimately to the conclusion that national policies cannot rest content with instituting markets, if development is to be the real objective.

2.6. Existing plans & activities to improve the innov. syst. and competitiveness

- Strategy

Basic document of Podlaskie RSI is Regional Strategy of Innovation – described on page 7.

- PCI

It is a project realized by University of Białystok, Białystok School of Economics and T-Matic Grupa Computer Plus. It is financed by EFS and State Budget as an implementation of Integrated Regional Operational Program. It has started on 1st April 2005 and is to finish on 28th February 2007. Its aim is to increase innovation level in Podlaskie region, promotion of innovative solutions created in the region, setting up a platform of innovations and knowledge transfer and monitoring of RSI implementation in Podlaskie region. Main activities are: creating database of business support institutions in the region,

connecting entrepreneurs offering innovative solutions and products and finding necessary services.

Project offers also consulting services served by group of experts.

- Technology Transfer Centre of East

Technology Transfer Centre of East is an interdepartmental unit established 11 June 2003 at the University of Bialystok. It conducts research, training and educational activities. The principal aim of TTCoE is to provide scientific and research units as well as small and medium enterprises (SME) interested in introducing innovations and technology transfer with substantial help.

TTCoE.s focus is on enhancing competitiveness of Polish industry by:

- * promoting and supporting international cooperation in new technologies between research&development institutions and companies;
- * promoting innovative enterprises;
- * placing the results of research work at the companies. disposal to improve the service quality of Polish enterprises; supporting technology transfer.

TTCoE cooperates with innovative scientific institutions, enterprises and organisations, helps them to manage innovations, prepare technology to put it on the market and transfer it to Polish and foreign recipients. TTCoE contributes greatly to the development of the University.s of Bialystok international cooperation as part of the EU Research Programmes, but its main focus is on establishing contacts with Lithuania, Belarus, Ukraine and Russia, so that joint projects could be carried out.

- NEPIRC

NEPIRC is a part of the largest network in the world operating for the promotion of international technology partnerships and transfer. We help entrepreneurs and researchers from the regions of Lubelskie, Podlaskie and Warmińsko-Mazurskie to establish contacts with companies and research institutes in over 30 countries in the world. We provide assistance to our clients regarding identification of their technology needs and potential and enable access to several thousands of innovative technologies collected in the IRC network database. We support and advise our clients in every phase of the technology transfer process. Thanks to the co-financing of the project by the European Commission our basic services are free of charge. If you like to get more information please complete our registration form or contact our regional consultants.

The mission of the IRCs is to support innovation and transnational technological co-operation in Europe with a range of specialised business support services. IRC services are primarily targeted at technology-oriented small and medium-sized enterprises (SMEs), but are also available to large companies, research institutes, universities, technology centres and innovation agencies.

Over the past five years the IRCs have been of assistance in over 12,500 technology transfer negotiations, and have helped more than 55,000 client companies to meet their technology needs and to exploit their research results.

Today, 71 regional IRCs span 33 countries - 25 EU Member States, Bulgaria, Romania, Iceland, Israel, Norway, Switzerland, Turkey and Chile.

What are the main services provided by IRCs?

- technology audit
- assistance in searching for partners
- individual partner meetings
- technology missions
- advisory

STIM

STIM is a project which offers:

- Access to database of innovative offers and requests and possibility of adding own offers and requests;



-
- Individual consultations and advisory services; regional conferences concerning technology transfer, innovation, copyrights, financing new technologies;
 - Support in searching for trade partners – advisory services, information services;
 - Technological audit and support in buying certifying services;
 - Opinions about new technologies, support in preparing documentation required in another projects for SME.

STIM is based on survey made in years 2002-2003 by IRC identifying main problems in innovation transfer.



THE ANALYSIS OF RIS SUPPORTING TOOLS IN KAUNAS REGION

Prepared by:



*Kaunas University
of Technology*

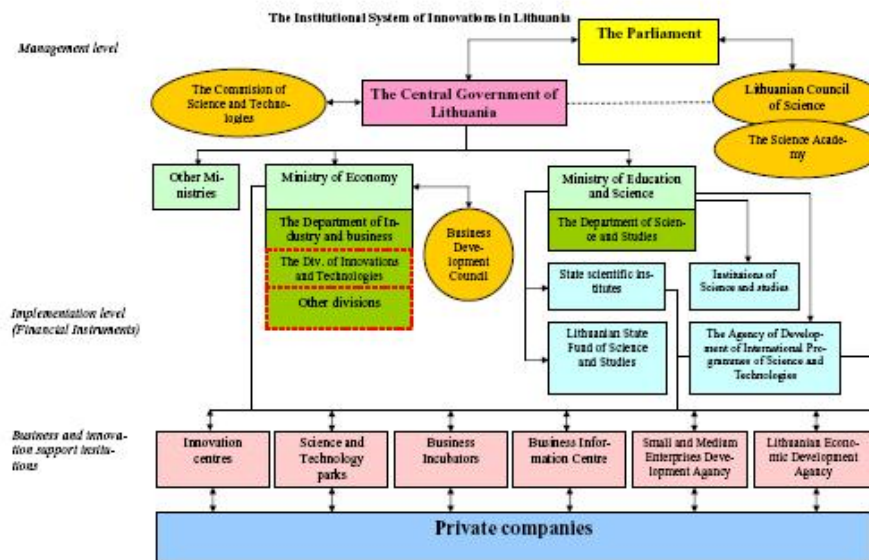


TECHNOPOLIS
Science and technology park

Kaunas, 2006

1. Short description of tools in the region

In earlier report the actors of RIS were analysed. The main supporting tools are very closely related to these actors. Structure (below) of RIS in Kaunas region shows the origins and type of tools in-use.



SMEs in Kaunas region have comparatively wide range of institutions and sources that offer support for innovations and similar activities. We have several types of supporting tools: a) administrative support tools; b) consulting services; c) financial support.

Administrative tools are understood as the legal support from national and regional government by necessary legal acts, long-term planning documents with some priorities. Worth to say that almost all possible planning documents and acts are approved and used in daily life at the highest level (central government), some money are also foreseen for the implementation of foreseen measures and action plans (these measures and plans are almost always applied for indirect support of business, i.e. for business consultancy services, business incubators and business information centres), but not locally, where seldom planning documents are prepared in close cooperation with businesses. Local planning documents even these for business-support are not so useful for businesses because of lack of cooperation between business and municipalities in preparation stage.

Consulting services (almost free of charge) are mainly provided by business counselling centres (BCC) and incubators. But these services are not of-high-quality for businesses, because contains only basic help, the consultants in BCC are in general without practical experience in business, so they can not really be helpful. Consulting services, provided on commercial basis, are more useful and of higher added value for businesses. Worth to stress that main counselling institutions are easily accessed for the businesses of Kaunas region. Lots of private companies also provide counselling services of very good quality in Kaunas region. Universities and scientific institutes also provide commercial counselling, though prevailing view held by business representatives is that the local scientific institutions provide little commercially relevant output. So only in separate cases this kind of counselling give some notable results (i. e. positive assessment of individual researchers, who are often hired by enterprises to apply new technologies)

Financial support for innovative actions for SMEs in Kaunas region is not a big problem if the company have immovable property – then it can get credit from local bank (local banks are not involved in financing of risk capital for SMEs). If no property is available, there are public funds for SMEs – in national and local level. National funds (state help, ERDF ad Social Fund help) support innovative actions and product development, participating in various events, improvement of qualification. State help provides comparatively small grants (up to some 34 thousand euros). The assistance from ERDF of Social fund for innovations-related activities up to 1,4 MEUR, but the rivalry is very hard. Besides, the procedures while implementing EU-financed projects are comparatively complicated for SMEs. As a result many of SMEs look for alternative sources of financing (e.g., business angels). At local level (municipality) there are always small fund for SMEs support and innovations are always one of the main priorities. But the amount are rather small so are the bureaucratic procedures.

In summary, SMEs in Kaunas region see financial support as the main tool because other measures are more or less accessible without big difficulties. One of the main important tools is financial support (national sources of funding; assistance from ERDF and SF). This is characterized in SWOT table.

2. SWOT analysis

The SWOT analysis of innovations-supporting tools could be described as following:

Strengths		Weaknesses	
–	wide range of supportable actions and themes;	–	comparatively complicated application process;
–	good financial assistance size and intensity;	–	long procedures of application evaluation;
–	clear structure of management of the tool in local level.	–	bureaucratic way of organization of monitoring and supervision;
		–	negative image of tool because of signs of possible corruption inside responsible agencies;
Opportunity		Threats	
–	simplification of whole national policy and system of financial support for SMEs;	–	change of the policy of national support for SMEs policy and restriction/cut of support scope;
–	participation in larger EU-wide competitions for financial assistance.	–	rise of mistrust of SMEs and declining interest regarding the tool.