

PROMOTING SCIENCE AND INNOVATION THROUGH CROSS-BORDER COOPERATION

9 December 2005, Domina Ilmarine Hotel, Tallinn

11.00-14.30 4th session Innovation and cross-border cooperation in universities

Conclusions and recommendations

Introduction

BEN project's aim is to promote spatial development and territorial integration in the Baltic Sea region by strengthening Euroregions as competent partners with national authorities and international institutions, and by building a network of Euroregions. The conference session objective was to discuss the role of scientific and higher education cooperation in promoting the spatial development and territorial integration. Nowadays the knowledge is replacing physical resources, as the main drive for the economic development and the role of science and higher education in promoting the development of border areas is high and continuously growing.

Overall development of the knowledge base in border regions through strengthening scientific capacity and quality of higher education in border regions is important. Promoting cross-border research and higher education cooperation is important as well since such cooperation supports territorial integration of transborder areas.

1.1. Definition of cross-border cooperation in research and higher education

It was considered that the cross-border research and higher education cooperation could be defined as cooperation between organisations and experts in neighbouring states addressing issues of regional social and economic development as well as environmental situation in a transborder area of those neighbouring states. This cooperation occurs most frequently in the fields of social and human sciences (political science, sociology, ethnography, cultural studies, etc.) as well as environmental sciences. Cooperation between research institutes and universities situated in the countries that do not have shared borderline is named "transnational" cooperation.

1.2. Availability of skilled human resources as a factor of the development of border regions

How to promote research and higher education in border regions was one of the major topics of the discussions at the session. *Dr. Gulnara Roll*, Estonian University of Life Sciences and Peipsi CTC, outlined an importance of promoting involvement of students and scientists into cross-border research and higher education cooperation; such cooperation allows students to obtain new knowledge and skills of working internationally and eventually helps to develop scientific capacity at universities and other research and higher education institutions in border regions.

According to *Mr. Madis Võõras*, Director of Innovation and Technology Development at Enterprise Estonia, how fast the economic development takes place in a city or a region, depends on an ability of a city or a region to attract and retain skilled and talented people to work. This ability is a function of three main factors, including, firstly, technological infrastructure, i.e. high-technology industry, growth, average annual-patent growth, WIFI, 3G, digitv, satellite radio, etc.; secondly, talents:

high relative importance of creative professions in the given location based on occupation and employment surveys; and thirdly, openness and tolerance of the place to newcomers that could be measured according to different indexes, including the Gay Index, the Melting Pot Index, the Bohemian Index, Racial Integration Index, etc.

1.3. Cross-border research and higher education cooperation – benefits and challenges

The cross-border cooperation in research and higher education takes place when there are common problems which universities and other organisations on different sides of the border face or have common issues of interest.

Mr. Aret Vooremäe, Head of the Department of Academic Development, Estonian University of Life Sciences, presented the case of the BOVA – NOVA – Nordic and Baltic cooperation programmes between agricultural universities. The Baltic and Nordic universities faced two major difficulties that they tried to overcome by the means of establishment of the cooperation, those include, firstly, lack of competence in some scientific areas and, secondly, a limited number of MSc/PhD students in specific study areas at the universities. Establishing cooperation between the universities gave opportunities to set up joint courses and joint degree programmes for graduate students at Nordic and Baltic universities; to organise exchanges of lecturers/professors between the universities involved and to recruit international teaching staff.

Dr. Katri Raik, Director of Narva College of University of Tartu, Estonia, discussed the cooperation of the Narva College with St. Petersburg Pedagogical University and Pskov Pedagogical University in Russia. The Narva College is one of the very few state higher education institutions in Estonia that prepares teachers of Russian language for schools; at the college head office for Estonia for testing of Russian language as a foreign language skills was established. Many of the college professors obtained their higher education at pedagogical universities in Russia. To promote higher quality of education in Russian language, Narva College regularly organises exchange of professors and students, joint scientific conferences and publications with its partner universities in Russia.

Dr. Eduard Moppel, Rector of Pskov Volny Institute, Russia, presented the experience of the research and higher education cooperation of Pskov Volny Institute, a private higher education institution located in Pskov, Russia. In the Baltic Sea area, the Volny Institute cooperation partners include universities in Estonia, including Tallinn EuroUniversity and Tartu University Eurocollege; in Finland - Abo Academy University; in Sweden – Vaxjo University and Swedish Institute of Management. The cooperation includes organisation of international summer and winter schools for students; scholarship for Pskov students to study abroad; organisation of training in management for businessmen, participation in research projects mostly in social sciences, other.

Dr. Elve Lode, Hydrologist of wetlands and surface waters, Forest Soils Department, SLU – Swedish Univ. of Agricultural Sciences, presented experiences of the cross-border cooperation between Estonia, Sweden and Latvia on studies of wetland areas in those countries. The studies included student courses (lectures and field studies) as well as interdisciplinary research on wetlands that also resulted in preparation of recommendations to decision-makers. The presentation demonstrated importance of joint field work of scientists and students on studies of shared natural resources; this kind of joint studies are not only important for education of students but also usually have practical outcomes, including recommendations to authorities on

sustainable management of shared natural resources in transboundary areas. These kinds of studies are quite time-consuming and require lots of efforts to collect and process large amounts of empirical data.

The above mentioned examples of the cooperation in higher education and research demonstrated that such a cooperation is beneficial to the partners involved as it helps to raise quality of courses and research programs, it attracts foreign students to study in the partner institutes, provides opportunities to students to obtain wider experiences and gain personal contacts with scholars and students in other countries and through that to promote students' and scientists' mobility.

According to the presenters, there are challenges in the cross-border higher education and research cooperation where support from relevant authorities (first of all, ministries of science and higher education but also regional and local authorities) is needed in order to address those challenges. The presenters outlined the following challenges:

- Despite the declared possibilities for higher education credits' approval across Europe for international programmes, the actual recognition of merits is still unsatisfactory, being an important hindrance for collaboration between higher educational institutions in different countries;
- An international legal framework for the joint doctoral programmes is missing;
- There are no common procedures for quality assurance on institutional level in partner countries (admission requirements, content/quality of courses given by partner institutions, logistics and housing).
- Differences in educational systems and study periods in partner countries. For instance, in Estonia a system of three years of Bachelor plus two years of Master level education is accepted while in other countries, such as Latvia and Russia, the earlier system of four (Bachelor) plus one (Master) remains.
- Issues of a continuous financial support to cooperative programmes in research and higher education.
- While within the European Union, the certificates of higher education are mutually accepted among the EU member states, this is not always the case for the cooperation with countries outside of the European Union. For instance, Russia does not accept Estonian higher education certificates, which makes the cooperation more difficult; negotiations to ensure mutual acceptance of higher education certificates between Estonia and Russia are under going.

1.4. Cooperation versus competition between universities and higher education institutions

It is clear that in transborder areas not only cooperation but also often competition takes place as universities compete with each other for students and research grants.

Dr. Mauri Kaipainen, Professor of New Media at Department of Informatics, Tallinn University, spoke about developing Master of Sciences programme in Media Studies. The programme is being developed taking into account existence of similar educational programmes in the Baltic Sea area and needs of the international job market in media experts. The developing programme is likely to bring to Tallinn students not only from Estonia but also from other countries since the educational programme according to preliminary assessment is of a great interest to potential students. Tallinn University in this case is competing for students with other universities in the Baltic Sea area. This example of the development of a new competitive education programme outlined an importance of having a vision of new,

untraditional and innovative projects and ideas that can help universities in border regions to create a competitive advantage.

1.5. Who is responsible for the promotion of the cross-border research and higher education cooperation?

The session presentations by the universities demonstrated that the universities are important players themselves in promoting cross-border research and higher education cooperation. Multiple studies show that this kind of cooperation between individual actors such as universities is effective.

However, it should not be forgotten that there are also other players in the cross-border cooperation. Regional authorities are as a rule responsible for the development of their regions; this includes a responsibility for the economic development, promoting trade, SME development; setting up the physical infrastructure that also supports higher education and research. The levels of competencies of regional and local authorities varies from country to country; it depends on the countries' political and administrative structure as well as on capacity of regional authorities for the development and implementation of different economic and social development activities.

The capacity of Euroregions also varies a lot from country to country. In border areas shared by new EU member states as well as Russia and Belarus the capacity of Euroregions for the support of science and higher education is quite low while in Northern Europe there are strong Euroregions that support the research, higher education cooperation infrastructure development and networking.

Ms. Johanna Backman, Project Manager at UniZon Kvarken, the Kvarken Council, Sweden, shared a success story of the Kvarken Council activities on organisation of research and educational cooperation that involved eight universities in the Swedish – Finnish border area. The Kvarken Council, founded in 1972, is a co-operation body joining the authorities in Västerbotten and the municipality of Örnsköldsvik in Sweden and the municipalities and regional councils in Ostrobothnia in Finland. The Council runs eight Interreg III A projects which concern communications and infrastructure, know-how and the market and shared values. The Kvarken Council was able to attract local, national and European funding to support preparation of joint educational courses, network building, organisation of scientific meetings and research projects. The Council also supported the development of an Internet based communication system that joined scientists and students in the universities involved in this cooperation.

Role of state/federal authorities in cross-border higher education and research cooperation is high. Traditionally there has been a strong separation between policies dealing on the one hand with regional development and SMEs and on the other hand with research excellence and industrial competitiveness, for which state/federal authorities are responsible. Development of research was in a jurisdiction of states. Generally, there has been an argument that the regionalisation of science and technology policy would lead to a fragmentation of resources and competences (See more in Enlarging the ERA, 2005). Therefore, regular communication and cooperation between state organisations and agencies responsible for the development of research and higher education in border area and regional authorities is of utmost importance to help development of border regions through science and higher education.

Role of EU in the cooperation. EU involvement is important in supporting the cross-border cooperation, especially on the external EU borders where specific

policies are being implemented with the EU support; this includes the European Neighbourhood Policy, the “Northern” Dimension. Europe also supports the 'big science' questions important across all Member States through its Framework Programmes for Research, Technological Development and Demonstration Activities.

Session recommendations to Euregios

1. There are different actors – state and regional authorities, the EU and other international organisations, universities, other institutes are involved in cross-border cooperation on research, higher education and innovation. Regular communication and cooperation between state organisations and agencies responsible for the development of research and higher education in border area and regional authorities is of utmost importance to help development of border regions through science and higher education.
2. University to university cooperation directly showed to be quite successful and should be encouraged. The research and higher education cooperation occurs when there are common interests. Euregios should communicate to universities to discuss development of agendas that are important for the development of border regions.
3. Role of regional and local authorities is focused mostly on the creation of physical and other infrastructure for the cooperation – please see a success story of Kvarken Council in Swedish – Finnish border area. However, one should keep in mind that the capacity of regional authorities and Euregios is quite different from region to region – high in Skandinavia and quite low on the Eastern fringe of the EU. Development of the capacities of the regional authorities is important.
4. Role of state and federal authorities is important in the CBC on higher education and research. There are a number of challenges to the cooperation that could be addressed only in cooperation with state/federal authorities; therefore, a regular communication with the authorities shall be maintained.
5. More efforts should be put into promoting the cooperation on the external EU borders where legal and institutional systems of education and research organisations could be very different across the border; as well as research culture.

Annex 1. Session schedule

11.00 – 11.30 Border regions strategies on research and technological development – Gulnara Roll

11.30 - 12.00 Coffee break

12.00-12.15 Can Tallinn be a fast city? - Mr. Madis Võõras, Enterprise Estonia, director of innovation and technology development

12.15 – 12.35 Estonian-Russian cooperation - Dr. Katri Raik, Narva College of TU

12.35 – 12.55 NOVA-BOVA Baltic-Nordic cooperation, Mr. Aret Vooremäe,

Department of Academic Development, Estonian University of Life Science, director,

12.55 – 13.15 University Co-operation in the Kvarken Region

G. Roll 15 December 2005

Ms. Johanna Backman, UniZon Kvarken, the Kvarken Council, project manager
13.15-13.35 Cross-border cooperation in higher education and research in the Russian
– Estonian border area – experiences of the Pskov Volny University - Dr. Eduard
Moppel, Pskov Volny University, rector
13.35-13.40 Cross-border cooperation on environmental issues - Dr. Elve Lode,
Hydrologist of wetlands and surface waters Forest Soils Department, SLU (Sweden)
13.40-14.00 Enhancing new media culture links between Helsinki and Tallinn – Dr.
Mauri Kaipainen, New Media Professor, Department of Informatics, Tallinn
University
14.00-14.30 Conclusions with recommendations to authorities and euroregions