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Co-ordination of Research Policies with the Western Balkan Countries

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Good practice examples of innovation policy approaches and instruments in the Western Balkans

Deliverable of the project WBC-INCO.NET (D8.50) in the Task “Fostering innovation and adapting good practices” (T8.2)

Authors: Ulrike Kunze, Djuro Kutlaca, René Wintjes, Roman Noetzel, Bastian Raue, Erika Rost, Karin Wedde-Mühlhausen and many experts

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WBC-INCO.NET, an FP7 funded project running from 2008 to 2013 with a total of 29 project partners, aims at the enhancement of the integration of Western Balkan Countries in the European Research Area (ERA).
Its core objectives are to support the bi-regional dialogue on science and technology (S&T), to identify RTDI cooperation potentials and priorities for take-up in FP and other EU programmes, to enhance participation of WB researchers in EU projects, to analyse innovation needs and barriers in the WBC, to exchange information and best practices on innovation policies and to establish closer cooperation between research and innovation. WBC-INCO.NET is being coordinated by the Centre for Social Innovation, Austria.

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* This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

Introduction

The EU-funded project WBC-INCO.NET is a networking project for the Coordination of Research Policies with the Western Balkan Countries (www.wbc-inco.net). The target countries are Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Kosovo*, Montenegro, and Serbia. The project supports bi-regional policy dialogue, identifies RTDI potentials and priorities, enhances the participation of researchers from the region in European projects and finally aims to increase the innovation capacities.

In particular, WBC-INCO.NETs Work Package 8 ("Innovation Support") has the following objectives:

- To provide an overview on WBC innovation systems and the key RTDI stakeholders of the region;
- To identify future research market needs and to analyse the needs in innovation policy and innovation support;
- To identify good practices of innovation activities, policies and instruments from EU MS/AC as well as from WCB that are suitable to be adapted to the needs of the region and to develop adaptation schemes;
- To identify policy measures to improve the framework conditions for innovation and then to define joint actions;
- To organise and promote a dialogue of the regional research and innovation stakeholders in SEE on political and analytical level (through Innovation Dialogue Fora and the establishment of a WBC Innovation Group of Experts as well as through the support to a large networking conference);
- To organise training for innovation stakeholders and auditors, support agencies and researchers in the fields of technology transfer and market innovation needs with a view to bridging the gap between research and industry (with an emphasis on strengthening the market position of SMEs).

One of the activities carried out to support innovation initiatives in the region was to collect, discuss and exchange information on good practices in innovation policies and to provide the basis for a possible further implementation of some of these examples in the target region.
Responsible for the task T8.2 „Fostering innovation and adapting good practices" are the following WBC-INCO.NET project partners:

- International Bureau of the Federal Ministry of Education and Research at the German Aerospace Centre
- Federal Ministry of Education and Research - Germany
- Mihajlo Pupin Institute
- United Nations University MERIT- Maastricht Economic and Social Research and Training Centre on Innovation and Technology

The work included the collection of good practice examples in the EU Member States and in the Western Balkan countries. The chosen examples should - if possible – have undergone positive evaluation and be suitable to be transferred to one or more countries of the Western Balkans.

The publication at hand has been prepared in order to share information about the good practices available in the WBC themselves, to exchange information within the region, assuming increased transferability and also to inform about excellent schemes outside of the region, i.e. through the Steering Platform on Research for the Western Balkan Countries.
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We introduce a total of 24 good practice examples from the Western Balkan countries representing a broad range of innovation measures, programmes or infrastructure facilities. They target a wide spectrum of innovation and market research needs identified in the previous Task of this Work Package (T8.1). Not all of them have already undergone some evaluation; this might be due to the fact that they have started only recently or that an evaluation is just not foreseen. Some good practice examples have to face bottlenecks and obstacles and have sustainability problems: lack of funding, poor coordination, etc. are often the reasons for discontinuing a successful initiative. Others really have proven to be good practice examples that could easily be transferred to other countries.

These facts and the needs expressed by the WBC project partners are being taken into account when selecting out of the in total 45 good practice examples (including those from the EU Member States) some that will be considered further for transfer, development of adaptation schemes and possible broader implementation in the Western Balkans region.

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1. ALBANIA

1.1 INDUSTRIAL OLIVE SAPLING PRODUCTION AND INTENSIVE OLIVE CULTIVATION

1.1.1 Regional framework in which the instrument is implemented

Olive is widely distributed in the western and central part of Albania, having also a rich diversity of cultivars. The Olive project is one of the most important projects in the frame of the National Research & Development Programmes, being also one of the projects that introduces innovative technology in the respective sector.

1.1.2 Description

Albania has a rich diversity of olive cultivars with high productive value in terms of both quality and quantity. This project will contribute to the preservation and intensification of these capacities by increasing the cultivated area through intensive and super-intensive cultivation technology. The importance of the project lies in its potential for increasing olive production through the new cost-effective technology it introduces for the production of olive saplings.

1.1.3 Level (Macro-, Meso- or Microlevel)

Microlevel

1.1.4 Main goals

- This project is part of the National Research & Development Programmmes, its main goal is planting an area of 40 ha with olive saplings.
- The setting-up of a plantation to provide plant material for saplings production from native cultivars.
- The establishment of a low-cost olive sapling production plant.
- The establishment of a professional training center.
- Support for a long-term research plan through the establishment of a solid infrastructure base and adequate human resources.

1.1.5 Target groups

Entrepreneurs

1.1.6 Initiator

Agricultural University of Tirana
Horticulture, Plant Production, and Plant Protection Departments

1.1.7 Implementer

Agricultural University of Tirana

1.1.8 Partners

- Ministry of Agriculture and Food
- Technology Transfer Center, Vlora.
- Technology Transfer Center, Fushe-Kruja

1.1.9 Budget/Funding

Government funds – Agency for Research Technology and Innovation

1.1.10 Impacts/Results

- First-time collection of native and extraneous genetic material in an authentic collection meeting all scientific criteria
- Selection of best native cultivars for economic growth
- Certified sapling production meeting EU requirements
- The establishment of a low-cost olive sapling production plant
- The establishment of a research group comprising experts from different fields, as well as graduate and post-graduate students to create a cooperative environment
- In a later stage the setting-up of a modern production processing line

1.1.11 Evaluation results: Success factors, bottlenecks

The project has achieved all its main objectives. The olive sapling production plant at the AUT has a production capacity of 500,000 saplings/year from the best native cultivars.
Through the use of innovative technology, production time has shortened from 4-5 years needed by applying the classic technology to only 2 years. The sapling cost of production has been reduced twofold, this will lower the cost of new plantations. Sapling derived from this technology enter production earlier, facilitating new start-ups in the sector.

1.1.12 Sustainability

Long-term sustainability will depend on the market and due time financing

1.1.13 Transferability

This project can be transfered and implemented in other mediterranean countries.

1.1.14 Why select scheme as good practice?

The above-mentioned positive evaluations are the reason for selecting this project as a best practice.

1.1.15 Contact

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1.2 THE RESEARCH LABORATORY FOR THE PRODUCTION OF PLEUROTUS MYCELIUM

1.2.1 Regional framework in which the instrument is implemented

The research laboratory for the production of Pleurotus mycelium is the first of its kind and will be located in a coastal area to meet the required climate and geophysical conditions. It will be the first Albanian laboratory to provide the basic element, mycelium, for the production of Pleurotus fungi. The establishment of this laboratory is part of the implementation of the country's development strategy priorities – the acceleration of innovative technological infrastructures.

1.2.2 Description

The establishment of the first Albanian research laboratory for the production of Pleurotus mycelium will encourage Albanian private enterpreneurs to enter the market with a new product. Products from the laboratory will be tested in a plant that will be initially installed inside the laboratory as a laboratory test to observe optimisation of the task results in laboratory conditions; in a second stage the products will be tested in a pilot plant in a natural environment, the last objective is the setting up of a plantation with basic infrastructure investments for testing the base product, optimising parameters, infection control, etc.

1.2.3 Level (Macro-, Meso- or Microlevel)

Meso-level

1.2.4 Main goals

- Identification of the nutritional environment for the growth of Pleurotus mycelium
- Establishment of a pilot plant inside the laboratory or in a plantation to close the production cycle
- Establishment of a research laboratory for the production of Pleurotus mycelium
- Engagement of students from different levels in theoretical and applied research.

1.2.5 Target groups

Respective sector entrepreneurs

1.2.6 Initiator

- Agricultural University of Tirana (Universiteti Bujqësor i Tiranës)
- Plant Protection Department (Departamenti i Mbrojtjes së Bimëve).
- Plant Protection Laboratory (Laboratori i Mbrojtjes së Bimëve), Durrës.

1.2.7 Implementer

Agricultural University of Tirana

1.2.8 Partners

- Production Farm Rifat Buka
- Gianvito Altieri, Italy
- Vila Company, Maliq-Korca.

1.2.9 Budget/Funding

Government funds – Agency for Research Technology and Innovation

1.2.10 Impacts/Results

- Isolation of the fungal strain
- Reproduction of the strain
- Multiplication of the strain
- Preparation for the pilot plantation production as a technological innovation

Production of Pleurotus mycelium in differentiated nutritional environments and in appropriate substrates for its fructification for the first time.

1.2.11 Evaluation results: Success factors, bottlenecks

Production of Pleurotus mycelium will be beneficial to researchers and to interested private entrepreneurs; Encouragement for the setting up of Pleurotus production plantations. The research laboratory gives students the opportunity to carry out research in the given field.

1.2.12 Sustainability

Long-term sustainability will depend on the market and due time financing

1.2.13 Transferability

The implementation and the transferability can be achieved through cooperation and information networks.

1.2.14 Why select scheme as good practice?

The above-mentioned positive evaluation is the reason for selecting this project as a best practice.

1.2.15 Contact

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1.3 SUSTAINABLE AGRICULTURE IN ALBANIA, SASA PROJECT

1.3.1 Regional framework in which the instrument is implemented

The Institute for Organic Agriculture was born from the Organic Agriculture Movement of Albania which had its beginning 14 years ago. The Institute took life especially after 2001. With the support of the Swiss Government, the Institute of Organic Agriculture of Switzerland (FiBL), and other interested specialists, a long-term strategy was developed, and at the end of 2011 some other institutions were developed, such as the Institute of Organic Agriculture, the Farmers Association for Organic Products (BioAdria), the Certification Body Albinspekt that now is accredited by the Albanian Government and some other European countries, Marketing Sector of bio and traditional Albanian products. This project is considered among the most successful in innovating Albanian agriculture creating conditions for further technical and organisational innovations.

1.3.2 Description

Organic agriculture is an agricultural system that uses material unharmful for the consumers and the environment in general; it harmonises the economic, ecological, and social interests for present and future generations.
During these years, a farm research system of bio agriculture was set up for the first time and an infrastructure system is in place with training advice, demonstrations, and publications; standardised materials for organic and integrated agriculture are produced by the institute; a collecting system for grapes and apples is set up from local cultivars, recommended to transfer to the Albanian biological agriculture; a modern signalling system and prognosis for diseases and pests in agriculture is set up through pheromone monitoring and electronic devices.

1.3.3 Level (Macro-, Meso- or Microlevel)

Macro level - micro level

1.3.4 Main goals

- On-farm research for biological system of agriculture (organic or ecological)
- Consultation and technical assistance in farms that practice biological agriculture.

1.3.5 Target groups

Private and public service consultants, farmers, processors, students and other interested private persons and families.

1.3.6 Initiator

Institute of Organic Agriculture (IOA)

1.3.7 Implementer

Institute of Organic Agriculture (IOA)

1.3.8 Partners

- Main partner, Swiss government
- Scientific partner, Biological Institute of Agriculture (FiBL), Switzerland
- UNDP
- Spanish Cooperation and Italian Cooperation
- Ministry of Agriculture

1.3.9 Budget/Funding

- The main budget comes from the Swiss Government 75%
- 25% of the budget is provided by other donors and by selling our services

1.3.10 Impacts/Results

- Increasing technical level of specialists and farmers
- Increasing number of organic farmers and organic production
- Increasing incomes from the export of organic products
- The environmental protection is more secure than in the conventional methods of agriculture; hygiene of soil, plants, water are more healthy than in areas where conventional pesticides, fertilisers, chemical hormones, and polluted water are used

1.3.11 Evaluation results: Success factors, bottlenecks

The projects have achieved all its main objectives. The Institute has set up a communication network with the University of Agriculture. As a result of the implementation of innovations in practice it is possible to make bio-products such as olive oil, fresh herbs, medicinal plants, fresh forest mushrooms exported successfully. Now the problem remains the quantity of production, because of the demand by European customers. Finally, the Institute is the representative of the Balkan network for biological agriculture.

1.3.12 Sustainability

So far sustainability is realised by donors and customers who bought the services of the Institute. The Ministry of Agriculture is expected to be the key supporter during 2012. Long-term sustainability will depend on the market and due time financing.

1.3.13 Why select scheme as good practice?

The project is considered among the most successful in Albanian agriculture.

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2. BOSNIA AND HERZEGOVINA

2.1 BIT CENTER TUZLA – BUSINESS INNOVATION AND TECHNOLOGY

2.1.1 Regional framework in which the instrument is implemented

BIT Center is located in a city which is the centre of the region/canton. Also, there is a University with well-developed technical faculties. There is another incubator in the region with a focus on manufacturing. Since there are many students and engineers from the University, BIT Center is recognised as an innovation centre and place to start-up companies and business. There is well-developed coordination with local authorities and the University, which create a possibility to expand infrastructure, innovations, and business.

2.1.2 Description

The operational phase of the BIT Center started on October 18th, 2005 after one year of preparations and reconstruction of the BIT Center building. The BIT Center started as a project of four partners, Tuzla Municipality and University of Tuzla as local partners and SINTEF and SIVA as Norwegian partners.

The BIT Center is a place for ICT business to grow. There are three types of companies/projects in BIT Center. There is "idea developers" (projects), "Start-up companies", and young established companies with a growth potential. Most of the companies are start-up companies.

The BIT Center Tuzla has developed three components through the years:

- ICT Business Incubator
- ICT Training Center
- ICT Research Center

The purpose of the incubator is to assist in and speed up business development processes in companies located in the BIT Center Tuzla. This objective is to be met by providing incubator companies with enabling tools, training, infrastructure, and other support necessary to create financially stable high -growth enterprises.

After the Business Incubator with focus on Information and Communication Technologies was founded, the BIT Training Center was established in May 2006 with the same focus. First steps were made in establishing the BIT Research Center during 2007 by equipping the laboratories at the Faculty of Electrical Engineering, and by the end of 2011, the reconstruction of a building for the BIT Research Center will start.

Occupying two buildings with about 1,400 m2 of office space, the BIT Center Tuzla offers quality rental facilities for new and developing small businesses. It is important to emphasise that the BIT Center apart from office space with modern equipment gives professional services like business consulting, business trainings, business matchmaking, transfer of knowledge and technologies as well as applying for Seed Capital Fund and helping in issues of finance, marketing, accounting and law.

2.1.3 Level (Macro-, Meso- or Microlevel)

Macro level

2.1.4 Main goals

One of the main goals of the BIT Center Tuzla is to provide young prospective experts and entrepreneurs the opportunity to start and develop their businesses in the domain of ICT, to support their development using Seed Capital Fund and to give core knowledge in business as well in ICT which can support the development of the company.

The main objectives for the BIT Center project are to:

- contribute to the creation of the favourable ambience and competence networks for start–up businesses and the development and application of information communication technologies (ICT) in the Tuzla Region;
- establish a sustainable and market oriented Centre for New Technologies and a Business Incubator focusing on ICT entrepreneurs through the provision of assistance to business start-ups and facilitation of international matchmaking and access to foreign markets.

2.1.5 Target groups

The main target groups are:

- entrepreneurs (people with entrepreneurial spirit, but not necessarily with a developed business idea)
- entrepreneurs with promising business ideas and planning to start a company (incubator companies)
- young or newly established companies (in ordinary terms)
- domestic and international companies that can upgrade.

2.1.6 Initiator

Tuzla Municipality, the Norwegian Ministry of Foreign Affairs, together with the Norwegian implementing partners SINTEF and SIVA, and the University of Tuzla

2.1.7 Implementer

BIT Centre - Business innovation and Technology

2.1.8 Partners

- University of Tuzla
- Municipality of Tuzla
- SINTEF
- SIVA

2.1.9 Budget/Funding

BIT Center – Business Innovation and Technology is funded by its own activities and partly funded by the local authority.

2.2.10 Impacts/Results

- The BIT Center has been operating for six years now with two full-time staff and a big network of incubator professionals
- In the last four years, the BIT Center had more than 95% of its capacity filled with start-up companies
- More than 80% of the companies were founded by graduated students
- ICT focus in a country which is on the bottom of the list in Europe regarding computer literacy
- Best incubator in the Western Balkan region in 2009 according to the Incubator Test that was made together with incubators from the region
- More than 40 companies in five years
- The companies have created close to 200 new jobs
- The companies in the BIT Training Center trained more than 4000 people (according to their statistics)
- The BIT Training Center is the first Oracle-certified Academy in Bosnia and Herzegovina
- More than 70% of the companies work on international markets
- Today there are 22 companies in the BIT Center
- 120 people are working in the companies, but between 150 to 180 people operate every day in the buildings
- The average age of people working in the BIT Center companies is 33 years
- 90% of people are graduate students of the Faculty of Electrical Engineering and Informatics
- 17% of the total number are woman
- First steps are made towards establishing research laboratories
- The BIT Center was host for foreign companies that were "soft-landed"
- The BIT Center has a big and broad network, and it is seen as reliable partner in the whole region and most importantly reliable host for entrepreneurs
- The BIT Center is seen as a first step towards ICT Industry
- The BIT Center can become a first technology park using EU funds in the future and Norwegian knowledge in making it successful
- The BIT Center project portfolio is more than five million KM
- The Seed Capital Fund was not operational for a year, but new companies didn't leave even though they did not get a grant, and they survived the first year
- The BIT Center planned, implemented, and maintained the first free WiFi network in Bosnia and Herzegovina in the city center of Tuzla

2.2.11 Evaluation results: Success factors, bottlenecks

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2.2.12 Sustainability

BIT Center has short- and mid-term sustainability, which is good for the incubator structure and the training centre and its needs on this level. Long-term sustainability is crucial for any action like this one in BIT Center. One of the many reasons for this is that added value increases when the commercialisation of R&D projects is achieved.

2.2.13 Transferability

It is an opinion that the "copy paste model" of incubators and innovation centres does not work, because it needs to be adjusted to the situation in place and the needs of the area where is implemented. However, the BIT Centre model can be used as an example of how to develop this system phase by phase from ICT incubator to a technology park.

2.2.14 Why select scheme as good practice?

The BIT Center could be an excellent example of how to:

- organise, run, and develop innovative structures starting with an ICT Business incubator, ICT-focused training centre and to develop research centre activities
- start new industry and inspire young educated people to start their own companies
- be recognised in order to be recognisable
- cooperate with the local government, academia and a foreign donor while implementing
- have a sustainable structure schema after four years of operations

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2.2 INNOVATION CENTRE BANJA LUKA

2.2.1 Regional framework in which the instrument is implemented

The Republic of Srpska has made significant progress from a devastated post-conflict economy to more macroeconomic stability, which has resulted in stronger investment activity and an overall increase in production. There are big challenges, however, including constantly high export/import balance deficit, low employment rate and an increase of the informal economy. It is also a challenge to support inflow of foreign investment, creation of new employment opportunities, and stimulating export. The economy must also stimulate the creation and use of knowledge by developing education and training, thus improving the general knowledge in the society and encouraging the start-up and development of innovative businesses.

The Innovation Centre Banja Luka has been established partly with the goal to help the Republic of Srpska in its transition to a knowledge-based economy, and by this process contribute to economic growth through more interesting jobs, a more skilled workforce, and an increased ability to participate in inter-regional and European projects.

2.2.2 Description

The Innovation Centre Banja Luka (ICBL) represents the first combined modernly equipped center for support and development of entrepreneurship in the Republic of Srpska, strongly committed to supporting the development of companies that are able to offer a wide market of advanced commercial solutions in terms of products, services, employment and improvement of business processes based on knowledge and application of innovative and advanced technologies. It encloses the Business Incubator and a Training Centre.

The Business Incubator provides support to entrepreneurs in developing successful companies. It offers all the necessary elements for successful professional development to its users, who are at the beginning of their ideas or want to develop a business through incubation. The Incubator helps through a wide range of professional consulting services with proven successful methodology used in developed countries in areas that bring innovation - from organisational processes to new business ideas.

A Training Centre in cooperation with accredited companies, educational institutions and experts with long experience in business and academic communities provides vocational training through the delivery of commercial, internationally certified and nationally recognised training courses and informal training courses, seminars and workshops in areas of business, computer science, computer engineering, and EU funds, in the form of traditional and eLearning.

The ICBL founders are:

- Athene Prosjektledelse representing the Ministry of Foreign Affairs of the Kingdom of Norway,
- The Ministry of Science and Technology of the Government of the Republic of Srpska
- The Republic Agency for Development of Small and Medium Enterprises
- City of Banja Luka
- The University in Banja Luka
- The University in Eastern Sarajevo

2.2.3 Level (Macro-, Meso- or Microlevel)

Mesolevel

2.2.4 Main goals

- Serve as a catalyst for development of high-technology and quality SMEs in RS
- Contribute to sustainable employment and wealth creation in RS
- Promote the technology transfer concept
- Stimulate technology commercialisation, adaptation and internationalisation
- Promote internationalisation of local high quality business and linking local SMEs to global market
- Generating a highly skilled workforce
- Promote lifelong learning practices in BiH
- Contribute to information, knowledge and experience exchange within the business community and between R&D institutions, universities, and the business sector
- Disseminate knowledge, business and innovation support models, and services to remote underdeveloped areas of RS

2.2.5 Target groups

Business Incubator

- Entrepreneurs: individuals who are founding a company based on knowledge and innovation, and who are seeking professional support, guidance, and counselling
- SMEs interested in further development of an existing idea, internationalisation or development of a completely new idea,
- Academic research groups: members of the academic community interested in commercialising the results of their research
- Investors: Individuals or funds willing to invest in high-potential innovative business in development phase

Training center

- entrepreneurs: individuals willing to improve their business skills and make themselves capable, competent, and ready for new business challenges
- SMEs are interested in investing in the improvement of the overall skills of their employees
- academic community: individuals willing to acquire new skills, information and knowledge through non-formal training programs and courses
- workforce: individuals willing to improve their skills in order to become more competitive in the labour market
- public administration: public servants willing to teach how to become high-skilled professionals capable of working in up-to-date public administration

2.2.6 Initiator

- Government of the Republic of Srpska
- Ministry of Foreign Affairs of the Kingdom of Norway

2.2.7 Implementer

Foundation "Innovation Centre Banja Luka"

2.2.8 Partners

- Athene Prosjektledelse representing the Ministry of Foreign Affairs of the Kingdom of Norway,
- Ministry of Science and Technology of the Government of the Republic of Srpska
- Republic Agency for Development of Small and Medium Enterprises
- City of Banja Luka
- University in Banja Luka
- University in Eastern Sarajevo

2.2.9 Budget/Funding

- Ministry of Foreign Affairs of Kingdom of Norway,
- Ministry of Science and Technology of the Government of the Republic of Srpska
- Republic Agency for Development of Small and Medium Enterprises
- City of Banja Luka
- Innovation centre Banja Luka (self-financing)

2.2.10 Impacts/Results

Through its activities the Innovation Centre Banja Luka contributes to the:

- Increase of self-employment rate
- Decrease of unemployment rate
- Increase of survival rate of start-up companies
- Promotion of local high-quality business internationally
- Increase investors' interest
- Technology commercialisation

2.2.11 Evaluation results: Success factors, bottlenecks

- EBN associate member
- Acquiring EEN and EBAN membership in progress
- Established working relations with:
- Governmental institutions on entity level
- Chamber of commerce
- Incubators in Bosnia and Herzegovina, region and internationally
- Business angels networks and VC funds in region
- Business incubator hosts 11 tenants
- ICBL Grant fund for tenants support operational
- ICBL fund for consultants operational
- Business Tuesday as networking event (business forum) introduced
- Training Centre offered courses on open market in following four sectors: Business skills, Desktop applications, IT engineering, EU funds
- ICBL learning management system developed for provision of eLearning courses
- Involvement in projects USAID Firma, USAID IPR, USAID Partnership in Innovation
- Partner in organisation of global events: Start-up Weekend and Global Cleantech Open competition
- Partner in organising the Competition for Best Technology Innovation on a national level
- Partner in realisation of business TV show "My Business"

2.2.12 Sustainability

In the first period of functioning, ICBL was financed by its founders, and it partially self-financed since the ICBL Training center was established as a profit-oriented unit. In the future, ICBL is going to be co-financed by its founders and ICBL is aiming to gain self-sustainability in a period of five years through training center revenues, projects, establishment and functioning of a Seed Capital Fund.

2.2.13 Transferability

Through cooperation and networking, the Innovation Center Banja Luka can transfer its idea of support model.

2.2.14 Why select scheme as good practice?

ICBL, temporarily organised as a foundation, is a concept that is significantly wider than an "ordinary" business incubator, as it contains other functions, providing "added value" to the overall concept in the form of consulting and training functions. This gives benefits through increased functionality and improved sustainability on the one hand, and improvement of the general profile of RS on the other. It also enhances capacities for utilisation of various developmental and pre-accession funds RS/B&H are eligible to within the context of the EU membership candidacy.

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2.3 INNOVATION AND ENTREPRENEURSHIP CENTRE (IEC) AT THE UNIVERSITY OF ZENICA

2.3.1 Regional framework in which the instrument is implemented

The INNOVATION AND ENTREPRENEURSHIP CENTRE (IEC) is a sub-organisational unit within the University of Zenica, created through the Tempus Project Number: 41108, implemented in the period 2007-2010. European partners in this project were the Polytechnic University of Turin (Politecnico di Torino), the University Incubator from Koper (the University of Primorska Koper), World University Service-SUS B&H and the Ministry of Civil Affairs (MCP). After adopting the Elaborate on the Centre at the Senate and the Governing Board of the University of Zenica in early 2008, IEC began with active work.

2.3.2 Description

After we finished the Feasibility Study of IEC, it was adopted by the Senate and the Steering Committee of the University of Zenica, and that also enabled legal prerequisites for changes in the organisational structure of the University. In parallel we have worked with our partners on the project of developing the capacity of the town: from human to material resources. We did not want to act as "independent shooters", so our activities were closely tied up by the synergy with other organisational units acting in the University of Zenica, the town of Zenica, the region (Zenica-Doboj Canton), and beyond. Thanks to the Tempus project, the Multimedia Centre and a Centre for Technology Transfer are superbly equipped. We have gathered a team of experienced and young professionals of different profile types and then we tried to include a great number of students in our work through many opportunities (Academy of entrepreneurship, Student Conferences, Competition for the best business plans, Development of university incubators, etc.).

IEC was recognised as a regional leader in promoting innovation and entrepreneurship and bilateral agreements were signed in this regard with partners from abroad (Reschica Network of the Western Balkans and EU, SENSI Network, BIR Network from Spain, the Protocols of Cooperation with the IRI – the University of Ljubljana, Cooperation with CERSI Institute of Rome La Sapienza, Politecnico di Torino etc.). IEC worked on developing applications in new international programmes such as Tempus, IPA and other bilateral programmes, and has collaborated in projects with institutions and organisations from Italy, Spain, Austria, Germany and the countries of the region. IEC organised three major business conferences in which more than 250 participants took part (Zenica Business Development Conference BDC 2008 and BDC 2009) and three TECHNO-EDUCA Student Conferences in 2008, 2009 and 2010. These Conferences will continue to be held in the years to come. Last but not least: IEC has printed many brochures, publications, books, pamphlets, proceedings and other materials, so interested persons had an opportunity to learn about the most important topics in the field of innovation and entrepreneurship and the public was informed of our existence, our visions, mission, and goals of development.

There are several departments in the Innovation and Entrepreneurship Centre:

- Department for Entrepreneurship;
- Department for Business Development (market research, development, and design of prototypes, technology, and organisational planning, etc.);
- Multimedia Centre (room for multimedia presentations and trainings);
- Virtual library and business incubator.

2.3.3 Level (Macro-, Meso- or Microlevel)

Macro-level state and international projects (but also on medium and micro level student education and teacher training)

2.3.4 Main goals

- Promotion of innovation and entrepreneurship within the student and teacher population
- Maintenance and participation in conferences, counseling, practices (workshops), trade shows, etc.
- Cooperation function between universities and the labour market, when it comes to creating and developing new curricula and creating a new faculty
- Development of innovative and entrepreneurial activities within the student body through the development of seminar and diploma works necessary for the economy of the region
- Helping in the creation of research for masters and doctoral dissertations that are required for the economy of the region and B&H
- Promotion of international cooperation in projects and programmes based at the Organisational Units of the UNZE (faculties, departments etc.) and other business entities
- Development of business plans of interest for economic development and the creation of innovative enterprises through the development of prototypes
- Promotion and development of information and communication technology (ICT) as an important segment of innovation in teaching and scientific research
- Multimedia presentations, trainings and seminars of different content as the content complement the existing undergraduate and postgraduate studies
- Programmes which support the development of spin-off and spin-out companies within the academic community and support to SMEs in the region of strong business growth and development
- Help for entrepreneurs - innovators and people in the region to make their ideas concrete and international
- Assist Cluster organisations of SMEs
- Know-how in the development of STP's and TP's, innovation centers, business zones, incubators for the technology transfer from the developed world

2.3.5 Target groups

Students, professors, SME entrepreneurs, etc.

2.3.6 Initiator

Academic staff at the University of Zenica

2.3.7 Implementer

Innovation and Entrepreneurship Centre at the University of Zenica

2.3.8 Partners

- At the micro level: all departments and faculties at the University of Zenica
- At the regional level: Business-start up Center of the Government of Zenica-Doboj Canton, the Federal Ministry of Entrepreneurship, the Federal Ministry of Science and Education, the Regional Development Agencies REZ - Zenica and REDAH - Mostar etc.
- At the state level: the Ministry of Civil Affairs, the Council of Ministers B&H, the State Agency for Strategic Development
- At the international level: the Ministry of Science of Government of Montenegro, WUS Austria Graz, Reschica Network of the Western Balkans and EU, SENSI Network, BIR Network from Girona in Spain, Innovative and Research Institute of the University of Ljubljana, CERSI Institute of Rome La Sapienza, I3P Incubator for Politecnico di Torino, Business Incubator of the University of Primorska in Koper, the Technology Park of Nova Gorica, the Technology Park of Maribor, Prekomurski Business Incubator, the Technology Park in Barcelona, the Technology Park in Valles, the Scientific-Technological Park in Girona and others

2.3.9 Budget/Funding

IEC is funded through provincial, regional, and international projects as well as participation in projects (national, international, and EU).

2.3.10 Impacts/Results

Until the end of 2011:

- Participation in the preparation of "The study in the field of business infrastructure" for the preparation of "The development strategy of B&H for the period 2009-2014"
- Preparation of the application of the IPA project „Development of Innovation Centers in Zenica, Banja Luka and Mostar", 2009-2011
- Participation in the project "Feasibility Study for the development of business zones in Herzegovina" 2009/10
- Holders of the project "Feasibility Study for the development of NTP of Montenegro" with WUS Graz, Austin Pock Partners Graz, Podgorica, 2011
- Participation in the development of "Strategy of development of science in B&H", 2009-2010
- Project of development of entrepreneurial skills with the Government of Flanders, Belgium, 2009/10
- Opening of the University Incubator in Zenica (UIC), together with the BSC Zenica (2009)
- Organisation of TECHNO-EDUCA Student Conferences in 2008, 2009 and 2010
- Preparation of project documentation for the start of NTP Zenica (2008-2010)
- Preparation of Feasibility Study for establishing of the Mechanical Engineering Technical Center (MTC) in Gračanica as a support for cluster development of the employed in the field of plastic and tool in B&H (2009)
- Organisation of the Conference on Entrepreneurship BDC 2008 and BDC 2009 along with BSC Zenica and the Faculty of Economics of the University of Zenica
- Participation in the conference on the development of technology parks and incubators of South Eastern Europe and Asia, ECABIT 2008 in Tambov (Russian Federation, 2008)
- Membership of the network of entrepreneurship centers in Europe (Reschica Network) run by the DAAD of Germany (2009)
- Cooperation with BSC Zenica in the implementation of the Academy of Entrepreneurship and choosing the best business idea (2008-2010)
- Support in the implementation of the best business ideas of the UNZE students etc. (2008-2010)
- Membership of the network of European Innovation Centers (BIR Network) run by the University of Girona (Spain) - 2009
- Implementation of training of employees from the wood processing companies in Central B&H in cooperation with laboratories of the UNZE and REZ Zenica (2009)
- Organisation of study visits to the Technological Parks of Nova Gorica, Valles, Barcelona, Lleida, and Girona (2009)
- Organisation of training for students and professors on 3D laser scanning technology and rapid manufacturing (RP) in cooperation with Pro-CADD in Ljubljana (2008)

2.3.11 Evaluation results: Success factors, bottlenecks

IEC has emerged as a result of the TEMPUS project and today is one of the most important sub-organisational units within the University of Zenica. Consistent with carrying out the work of transformation from teaching to the entrepreneurial university, IEC is a leader unit at the University of Zenica. IEC has transformed its initial team of experts from the Faculty of Economics and the Faculty of Mechanical Engineering, and has involved all faculties of the University of Zenica, with the aim that as many students and teachers of the UNZE as possible begin to think and work in entrepreneurial ways. In this sense, we have worked on the development a of curriculum which would be offered within the study program to all faculties, and the curriculum is in the domain of entrepreneurship education. IEC has become a distinctive regional and international partner in many projects. External evaluation of the University of Zenica, made by the EUA Brussels and the State Agency for Higher Education of Slovenia, recognised the importance of IEC for the UNZE as stated clearly in their final report.

Problems in the work of IEC are the inability of the systematical funding, furthermore, other organizational units of UNZE are experiencing the same problems, even those without any business references (e.g. the Institute of Economics of the University of Zenica). Another problem is the exclusion of staff of the Faculty of Economics, they see entrepreneurship as "exclusive business of economists and the others shouldn't be engaged in it", and as a result there is a weak cooperation between the IEC and the Faculty of Economics of the University of Zenica.

2.3.12 Sustainability

There is no doubt that the biggest problem in the functioning of such center is its funding, since all finances are provided on the principle of projects, and there are no additional funds from the University of Zenica or ministries. However, that provides a necessary activity for the IEC members who come from various faculties of the University of Zenica, outside the university, as well as other universities and who have innovative ideas and entrepreneurial ambitions. Hence, the range of services and references of the IEC are evolving year after year and developing in wider regional and international areas.

2.3.13 Transferability

It is certain that the IEC of the UNZE is a good model for developing similar centers at universities in Bosnia and Herzegovina and people at IEC of the UNZE are maximally open to any form of cooperation and transfer of good practice.

2.3.14 Why select scheme as good practice?

IEC has been recognised by many as a regional leader in promoting innovation and entrepreneurship and, in this regard, we have signed several bilateral agreements with partners from abroad. We worked on the development of applications in international programmes such as Tempus, IPA, etc., and bilaterally we have worked on projects with institutions and organisations from Italy, Spain, Austria, Germany and the countries of the region. Some of these activities will be especially visible in the future with new projects that we will start. We have organised two major business conferences and three student conferences named TECHNO-EDUCA in 2008, 2009, and 2010. We will continue to organise these conferences in the coming years.

Last but not least: we have printed many brochures, publications, books, pamphlets, proceedings and other materials, and the interested persons had the opportunity to learn about major issues in the field of innovation and entrepreneurship, and the public is informed about our existence, vision, mission, and goals of development.

2.3.15 Contact

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2.4 UNIVERSITY ENTREPRENEURSHIP CENTRE UNIVERSITY OF BANJA LUKA

2.4.1 Regional framework in which the instrument is implemented

The education system is not in line with the needs of the business sector regarding the following points: quality of output, content of studies, teaching methodology, lack of research component in study programmes, lack of practice for students, need for more laboratory time, work on project and hands-on experience in real industry environments, lack of specialised professors – resulting in low attractiveness for students leading to lack of students and low attractiveness of graduates for industry employers. This is also cross-related with the overall lack of entrepreneurial spirit and initiative within the student population and the lack of knowledge and skills for (self) employability.

The non-alignment is partially caused by insufficient collaboration between the enterprises and universities due to insufficient demand for Research & Development in enterprises, lack of demand-driven R&D in universities, and little focus by the universities on developing programmes of lifelong learning courses for industry which is based on the lack of information of what the industry needs and the lack of ability to adapt both formal and non-formal courses to industry needs – in terms of duration, delivery methodology, and content.

2.4.2 Description

The University Entrepreneurship Centre (UPC) was established by joint initiative of a professor and a group of students from the Economic Faculty of the University of Banja Luka (UBL). Formally it was established by a decision in December 2009. It has become a permanent part of the infrastructure at UBL, and the staff are employed as permanent employees at the Rectorate of the University. It serves as a contact and coordination point for a University–Enterprise cooperation platform. The Centre works on 3 connected pillars: 1) career development, 2) entrepreneurship promotion and support, 3) knowledge/technology transfer and R&D for the purpose of enterprise facilitation. These pillars are implemented through specific programmes, projects, and joint services (project management service, training service, and information service), and implemented through the work of several offices of the Entrepreneurship Centre (for students: entrepreneurs club, incubator, and business garden; for staff: spin-off and spin-out support; for companies: Industry liaison office and Enterprise support office); the Career centre (career guidance, internship and international exchange programmes for students; young researchers development programme); Office for R&D (triple helix projects, R&D infrastructure and human resources development projects, and community development projects).

2.4.3 Level (Macro-, Meso- or Microlevel)

Micro level

2.4.4 Main goals

- Promotion and development of innovation and entrepreneurship among University population
- Supporting the development of companies originating in the academic community
- Facilitating the transition of students into the labour market
- Promotion of university–enterprise cooperation
- Capacity building of the University and enterprises for cooperation and development
- Assistance in implementing scientific research projects for industry
- Helping innovators and entrepreneurs in the design and development of business ideas
- Supporting business growth and development through technology, knowledge and resources transfer
- Supporting the development of technology parks, innovation centers and incubators in B&H
- Promoting and improving international cooperation of University on project and programme basis
- Contributing to a better positioning of the University

2.4.5 Target groups

Beneficiaries - Mainly Banja Luka University students

A. Active entrepreneurs – students with specific business idea, who need help and support in preparing for implementation
B. Potential entrepreneurs – students who are interested in entrepreneurial career, but are not yet ready for starting a business
C. Young leaders and researchers – this group includes all other students who are interested in the acquisition of practical knowledge and work experience, in NGO and public sector or research/academic circles

Clients

A. Employers – companies, organisations and institutions who are interested in hiring and investing in development of students, graduates and experts
B. Entrepreneurs – individuals who are founding a company based on knowledge and innovation and who are seeking professional support, guidance, and counselling
C. Companies – interested in knowledge and technology transfer

2.4.6 Initiator

University of Banja Luka

2.4.7 Implementer

University of Banja Luka

2.4.8 Partners

- ICBL – Innovation Centre Banja Luka
- RARS – State agency for SMEs development
- CIDEA – City development agency Banja Luka
- Ministry of Science and Technology RS
- NTNU – Norwegian University of Science and Technology
- Government of Norway – Ministry of Foreign Affairs

2.4.9 Budget/Funding

N/A; University covers two full salaries for UPC staff and shared facility and related costs; additionally lending of all other infrastructural and human resources of the University; these are estimated to be around €50,000 annually. Activities and programmes are funded through specific projects by donor organisations.

2.4.10 Impacts/Results

Three large scale university enterprise projects approved by donor (one triple helix; two higher education institution development projects); a number of trainings for students and companies; student employment fair; around 50 internships; continuous consulting sessions realised with a number of students and entrepreneurs; participation in activities for promotion of entrepreneurship TV show "Moj/naš biznis" (My/our business), governing board and selection panel of ICBL; established cooperation with number of professors and student initiatives; established cooperation with 30 companies and all relevant intuitions based in Banja Luka related to student career development and entrepreneurship. Helped business foundation for 6 student-based companies; currently working on establishment of a spin-off company with professors and an innovation based business with an entrepreneur through a triple helix project. UPC facilities are being refurbished; Student business garden initiated.

2.4.11 Evaluation results: Success factors, bottlenecks

At the moment, the overall impact on the university is still hard to measure, since we just managed to get a number of projects and programme proposals approved, with implementation coming up in the next period. Major issues at the moment are in the business sector readiness to absorb the results (graduates and research) and slowness of the higher education system reform process primarily on the development of curriculum, teaching staff, and research capacity issues.

2.4.12 Sustainability

As this is now a permanent part of the university structure and services, it has secured minimum financial and operational sustainability, and the quality and quantity of services and programmes will depend on fundraising success rate.

2.4.13 Transferability

This model of University enterprise platform is easily replicable on other universities in the WB, and we already have an agreement with the University in East Sarajevo to help them establish a similar infrastructure

2.4.14 Why select scheme as good practice?

This scheme is a practical implementation of a Western Balkan University – Cooperation framework suggested trough WBC VmNet project (Tempus), and an easily replicable platform that doesn't require high investments from the University to be initiated, and can easily bring results if the right team of people is hired for the implementation and if they have support from the university management.

2.4.15 Contact

Univerzitet u Banjoj Luci; Bulevar vojvode Petra Bojovića 1A; Univerzitetski Grad; Univerzitetski preduzetnički center - UPC
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3. CROATIA

3.1 BUSINESS INCUBATOR BIOS, OSIJEK

3.1.1 Regional framework in which the instrument is implemented

Osijek-Baranja County belongs to one of the lagging-behind regions in Croatia. According to the Croatian Central Bureau of Statistics the registered unemployment rate in the county reached 23.3% in 2009. Furthermore, compared to the data of 2008, total employment in the County has seen a reduction of 3.16% in 2009. These data show that unemployment, including youth unemployment, and the current increasing trends are critical problems that should be addressed for the County's long-term development.

Having these facts in mind, support and mentoring for start-ups and SMEs (especially the ones that are hi-tech oriented) is recognised as one of the key missing points for their growth.

3.1.2 Description

The Business Incubator BIOS was established with the goal of setting up a support center for small and medium-sized enterprises. A creative and stimulative business atmosphere where new entrepreneurs are provided with adequate growth and development conditions has been created thanks to joint efforts in providing business consulting, technical assistance and educational services in addition to preferential prices of business facilities lease. BIOS services are intended for manufacturing start-ups, high-tech and innovative businesses and spin-offs. These businesses need to show growth potential and prospects for new employment in the near future.

BIOS started up its new Technology Department in April 2009. The project of building this new Department has been chosen and granted as one of the best projects within the EU pre-accession fund Phare 2005 - Business related infrastructure. This 3,000 m2 incubator provides facilities, business planning and development support, entrepreneurial and technological education services, consultancy, knowledge and technology transfer, technology testing and financial resources access to manufacturing and new technologies oriented companies.

The Business Incubator BIOS is active in many entrepreneurship-supporting projects. It has established the Slavonia and Baranja ICT Cluster IKS with eight IT companies and the BIOS Printing and Publishing Cluster, which gathers 10 companies from the Osijek-Baranja County. BIOS organises an annual international conference about entrepreneurship. It has published two handbooks and a special DVD set containing basic information on starting your own business, where all the entrepreneurship support organisations are listed. BIOS has conducted surveys about entrepreneurs, incubators and clusters in Croatia and made them public on its web site. It is also involved in INTERREG projects in Slovenia - Hungary - Croatia. BIOS applied and was selected to be a beneficiary in a project for improvement of business competitiveness by electronic business (e-BUSINESS), which is being implemented by Ministry of Economy, Labour and Entrepreneurship, and is financed by the EU within the pre-accession programme IPA component IIIC.

3.1.3 Level (Macro-, Meso- or Microlevel)

Microlevel

3.1.4 Main goals

- BIOS is established with the goal to increase the survival rate of start-up companies, especially hi-tech oriented ones, and to decrease unemployment in the City of Osijek.
- Its services are intended for manufacturing start-ups, high-tech and innovative businesses, and spin-offs. These businesses need to show growth potential and prospects for new employment in the near future.

3.1.5 Target groups

Start-ups, hi-tech and innovative businesses, and spin-offs. These businesses need to show growth potential and prospects for new employment in the near future.

3.1.6 Initiator

City of Osijek

3.1.7 Implementer

City of Osijek

3.1.8 Partner

Center for Entrepreneurship, Osijek

3.1.9 Budget/Funding

- City of Osijek
- Rent
- Ministry of Economy, Labour and Entrepreneurship
- EU Funding

3.1.10 Impacts/Results

The Incubator now has 27 tenants with more than 110 employees. 14 companies have left the incubator after a successful incubation.

3.1.11 Evaluation results: Success factors, bottlenecks

The BIOS incubator is fully occupied and has no available space to accept all interested (potential) entrepreneurs. The renovation and expansion of the current incubator facilities will increase its capacity to host more tenants. Flexible spaces will be constructed to enable renting of smaller or bigger spaces/offices, depending on the tenants' needs, offering the possibility of adjustment of spaces in line with the tenants' growth.

3.1.12 Sustainability

With more than 3,000 m2 in facilities, BIOS has reached self-sustainability. However, for financing additional services, programmes and projects, additional funding is been provided by the City of Osijek, the Ministry of Economy, Labour and Entrepreneurship, and through EU projects.

3.1.13 Transferability

-

3.1.14 Why select scheme as good practice?

A proven track record

3.1.15 Contact

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web: www.inkubator.hr

3.2 PROOF OF CONCEPT GRANT FUND

3.2.1 Regional framework in which the instrument is implemented

The Proof of Concept Grant Fund programme was adopted with the approval of the Ministry of Science, Education and Sports as part of the Croatian Programme for the promotion of entrepreneurship based on innovation and new technologies and with the consent of the World Bank as part of the Croatian Science and Technology Project.

3.2.2 Description

The Proof of Concept Grant Fund (PoC) has been designed to help researchers from Croatia's universities and research institutes, as well as small entrepreneurs, to turn their ideas into a global business. The Grant is designed to support established and start-up businesses developing innovative new products and processes and to assist in the spinout of new enterprises from universities in Croatia by providing funds. It supports applicants to investigate, advance, and protect early-stage innovative business ideas in order to evaluate the commercial and technical risks, as well as the potential and feasibility, of the research result and to shape the commercialisation process. The Programme was suggested, designed and implemented by BICRO, approved by the Ministry of Science, Education, and Sports and the World Bank.

The Programme is operationally managed by BICRO in cooperation with a network of recognised Centres in Croatia.

3.2.3 Level (Macro-, Meso- or Microlevel)

Macro Level

3.2.4 Main goals

- Give applicants (innovative companies, small entrepreneurs and researchers) the opportunity to verify and validate the technical properties and the commercial viability of a research result
- Establish an appropriate strategy for continued commercialisation
- Make it possible for applicants, subsequent potential investors, customers, and industrial partners to evaluate the commercial and technical risks, as well as the potential and feasibility, of the research result and to shape the commercialisation process
- Go from genuine uncertainty to calculated risk

3.2.5 Target groups

Researchers from Croatia's universities, research institutes, and small entrepreneurs.

3.2.6 Initiator

Business Innovation Center of Croatia – BICRO Ltd.

3.2.7 Implementer

City of Osijek

3.2.8 Partner

-

3.2.9 Budget/Funding

Grants between €500 and €50,000 are available, with applicants expected to provide match funding of 25% of the total project costs.

3.2.10 Impacts/Results

- 363 Outline Application received
- 238 Full Applications received
- Requested funding exceeded 3.65 times the availability of funds
- 71 Projects approved and contracted with a total value of €2.5m;
- 29 patent applications, 19 technical feasibility demonstrations and 40 prototypes have been realised through the PoC so far.

3.2.11 Evaluation results: Success factors, bottlenecks

- 21 projects have been finished successfully so far, 2 projects couldn't reach the project's goals
- Each public budget euro invested through the Proof of Concept Grant Fund attracts an additional 0.72 euros of private capital intended for early-stage R&D

3.2.12 Sustainability

The PoC is a programme that is definitely needed in Croatia and is very well recognised and accepted by the target group and others. The PoC is going to be modified and more tailored to the clients' needs. Sustainability of the PoC depends mostly on the budget availability. BICRO constantly seeks Partners to co-finance PoC program. Therefore, negotiations with some Croatian companies and Counties are underway.

3.2.13 Transferability

The whole procedures (application, evaluation process and monitoring) are transferrable and information is available.

3.2.14 Why select scheme as good practice?

The Proof of Concept Programme is of critical importance for both innovator (applicant) and financer since it should demonstrate the feasibility of the proposed ideas, business model, etc. It is very well accepted by users in Croatia.

3.2.15 Contact

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3.3 RAZUM - SEED CAPITAL PROGRAMME

3.3.1 Regional framework in which the instrument is implemented

The Business Innovation Center of Croatia - BICRO Ltd. was founded by the Croatian Government in 1998 in order to implement technology development and innovation support programmes. It is a central institution in the national innovation system for technology advancement and innovation development.

The document "Science and Technology Policy of the Republic of Croatia 2006-2010", which was adopted by the Government of the Republic of Croatia on May 5, 2006 is a strategic document representing the vision of the development of the Science and Technology sector in the Republic of Croatia which clearly points out the importance of the knowledge transfer and cooperation of science and industry. "Science and Technology Policy" was followed by the related "Action plan for the Implementation of the Science and Technology Policy 2007-2010" that defines the conditions, instruments, and actors for getting the strategic goals and aims into function.

One of the main objectives of the Policy is to increase investments into research and development as well as their efficiency.

In accordance with the Government Guidelines from May 2006, BICRO is in charge of implementing "The support for entrepreneurship based on innovation and new technologies programme" for technological development. The Programmes RAZUM, TEHCRO, VENCRO, IRCRO, and KONCRO, launched in February 2007, are used to finance innovative technological projects in order to increase competitiveness of Croatian companies and products and to create other conditions necessary for successful knowledge transfer.

In September 2005, the Croatian Government signed an agreement with The World Bank for implementation of the Croatian Science and Technology Project (STP); the Act was later ratified by Parliament. It was implemented in the 2006-09 period and extended until May 31, 2011. The Loan forms the basis for implementation of the BICRO Programmes.

3.3.2 Description

The RAZUM programme – Development of Knowledge-Based Companies operated from 2001 until 2006 under BICRO's management. The characteristic of the procedures at that time were that too much emphasis was given on fully developed products (ready for market) and financing of production lines and facilities.

The RAZUM programme provides for initial financing of the development of a new product, service or process in a newly established or existing knowledge-based micro, small, and medium-sized companies and for stimulation of industrial research and development.

The new procedures implemented and operational since February 2007 turn the emphasis on the development of new innovative products that have exceptional market potential.

The procedures:

BICRO evaluates proposals from individuals and/or private sector SMEs, decides on their funding and monitors the use of funds by the beneficiaries. The procedure requires a financing decision based on a business plan accompanied by independent expert opinion. The service providers (experts) for the evaluation of the technical and technological part of the business plan are from the private sector and the research community and are pre-screened. BICRO is creating a list of eligible service providers and updates this list periodically. The evaluation of the financial part of the business plan is implemented by BICRO's financial analyst. The process of decision-making in BICRO is represented through three key institutional layers and related responsibilities: the Programme Director, the Investment Committee to take the 'yes/no' decision, and the final award from the Managing Director.

Conditions of funding:

The technology-based companies are financed for the development of a new product under the scheme as follows: conditional grants of up to max 70% of the operative costs and the same portion of research equipment over a period not longer than 3 years. The rest of required funds (minimum 30%) must be provided from private or other sources. Financing is defined on a yearly basis and to an extent depending on the accepted integral business plan. The company will begin with the repayment of a conditional grant from the moment its regular market sales revenues for the product start coming in (5% of the sales).

Under these procedures and conditions, RAZUM has funded 22 innovative projects and placed close to €15m (total amount of committed funds under the RAZUM programme since 2007) of seed capital in SMEs for R&D activities.

3.3.3 Level (Macro-, Meso- or Microlevel)

Macro level (National)

3.3.4 Main goals

BICRO is the key organisation within the national innovation system whose basic role is the development and the implementation of government support programmes aimed at strengthening technology development as the main generator of sustainable economic growth.

The task of the Government is to stimulate and support the initial funding of newly established companies, which will in a later phase attract venture capital investments and achieve a positive impact on the economy through the successful operation of these funded companies on the international market.

The RAZUM - Seed Capital Programme aims at ensuring

a sustainable increase in the number of knowledge-based, technology-driven SMEs. BICRO identifies projects and firms, evaluates their capabilities, and on that basis provides them with early seed financing.
The Program RAZUM ensures:

- Initial funding of newly established knowledge-based companies
- Funding of research and development of new products or services in existing companies

Expected benefits of the RAZUM investments for beneficiary companies:

- Improved competitive position internationally
- Increased capacity for conducting R&D
- Extended internal knowledge and capability of staff
- Enhanced reputation and image of the company
- New employment of highly educated professionals
- Networking and development of new collaborations
- Spill-over effects in the form of other innovations
- Improved understanding of specific issues and problems
- Use of new equipment
- Increased production efficiency
- Improved competitive national position

3.3.5 Target groups

SMEs

3.3.6 Initiator

Business Innovation Center of Croatia (BICRO)

3.3.7 Implementer

BICRO

3.3.8 Partner

-

3.3.9 Budget/Funding

- World Bank (STP project)
- Ministry of Science, Education and Sport (MSES)
- Own resources (private sources of SME)

3.3.10 Impacts/Results

The RAZUM programme

- 135 outline applications and 40 full applications received
- 22 projects contracted with a total value of €21.9m
- Companies financed through RAZUM employ a total of 602 people (213 people are working directly on RAZUM projects, i.e. in the development)
- 129 new jobs created as a direct consequence of RAZUM projects
- Net profits of companies financed through RAZUM reached €3.42m in 2010
- In 2010 the total income of companies financed through RAZUM was €33.8m

3.2.11 Evaluation results: Success factors, bottlenecks

Achieved project outcomes include:

- 16 new products
- 10 functional prototypes of new
- 10 new patents
- 6 industrial designs
- 5 new processes
- 3 improved processes
- 3 publications
- 1 improved product

Performance highlights:

- 85% of RAZUM beneficiaries are small companies (with less than 50 employees)
- According to their own statements, RAZUM funds were crucial for the implementation of 80% of projects
- Main motives for application to the RAZUM programme for companies are the need to increase competitiveness and attractive financing conditions (best on the market according to our clients)

3.2.12 Sustainability

-

3.3.13 Transferability

Through cooperation and networking BICRO can transfer its idea of support model.

3.3.14 Why select scheme as good practice?

A proven track record and long-term experience.

3.3.15 Contact

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CROATIA

3.4 TECHNOLOGY PARK VARAŽDIN – VA::TECHPARK

3.4.1 Regional framework in which the instrument is implemented

In Varaždin County, the population was 184,769 in 2001, the population density per km2 in 2001 was 146.49, the unemployment rate was 13.1% in 2010, and the GDP per capita was €9,404 (2008).
The economic structure of Varaždin County, as measured by total revenue, is dominated by the manufacturing industry (40%), followed by trade (27%), construction (10%), and agriculture, hunting and forestry (9%). Measured by the share in employment, the economy is dominated by the manufacturing industry, which employs more than 50% of the total number of employees in the county. There prevails labor-intensive and low-accumulative industries (textiles, leather footwear, wood processing, metal, and others) as well as technologically advanced industries (e.g. food processing), which are also carriers of exports in this area. In addition, a large potential in Varaždin lies in the young and highly educated staff gathered around the Faculty for Organisation and Informatics in Varaždin.
An initiative to develop a place where innovative companies, especially start-ups, can find a supportive environment and quality space and services started by the local public stakeholders in Varaždin in 2003. However with support from the national umbrella programme for supporting establishment and growth of technology infrastructure facilities (TEHCRO) and dedication of the team involved in planning and implementing the project, it has grown into a successful business support institution and focal point of the local economy. With Croatia's accession to the European Union, the Varaždin Technology Park has excellent prospects and plans to expand its infrastructure and capacities significantly.

3.4.2 Description

VA::TechPark is an incubation center for innovative technology start-up companies. It was founded in 2007 with the mission to contribute to economic development of the surrounding region, with the objective to aid creation of new businesses and jobs, to facilitate technology development and the application of knowledge in business ventures.

3.4.3 Level (Macro-, Meso- or Microlevel)

Mesolevel (Regional – North Croatia – Varaždin County)

3.4.4 Main goals

VA::TP is a special-purpose company that deals with:

- the establishment of an incubation centre for innovative start-up companies;
- the establishment of a mechanism for improvement of existing technologically innovative companies;
- the improvement of transfer of knowledge from universities and development centres into the economy;
- the networking of companies, educational institutions, development agencies, and innovative individuals; and
- the change of perception towards innovation as a foundation of a new economy.

3.3.5 Target groups

Innovative entrepreneurs in ICT

3.3.6 Initiator

- City of Varaždin 50 %
- University of Applied Sciences 50 %

3.3.7 Implementer

Technology Park Varaždin Ltd.

3.3.7 Partners

Faculty of Organisation and Informatics University of Zagreb

3.4.9 Budget/Funding

- Business Innovation Centre of Croatia (BICRO), TEHCRO Program
- City of Varaždin
- Own resources (VA::TP)

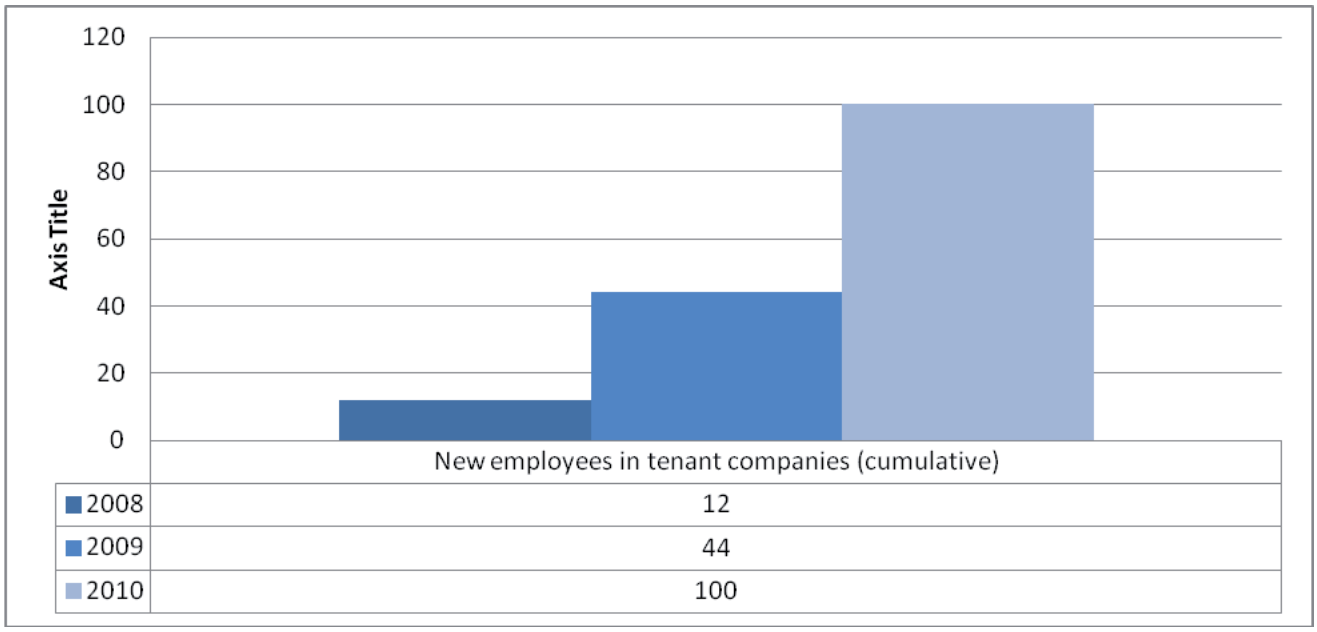
3.4.10 Impacts/Results

The VA::TechPark incubation programme has successfully graduated more than 40 companies, mainly specialised in software development and IT. Most of the Park's tenants develop competitive products, which are then successfully sold in international markets. VA::TechPark currently houses 26 young IT companies that employ over 250 people, including 200 developers. The Microsoft Innovation Center is also hosted inside the VA::TechPark. Today, 4.5 years after entering the TEHCRO program, VA::TechPark is financially self-sustainable.

Economic and financial analysis of Technology park Varazdin (in Euros)			
	2008	**2009**	**2010**
Net profit	1,151	1,486	2,454
Revenues from sales	16,514	147,677	157,134
Total revenues	146,713	222,765	456,551
Wages	51,569	53,175	64,074
Paid taxes and contributions from wages	36,458	38,547	45,726
Profit taxes paid	436	763	1,354
Paid net value added tax (VAT)	0	0	15,007
TOTAL PAID TAXES	36,893	39,310	62,087
Number of employees	4	4	6
The ratio of self-sustainability	13%	80%	77%

3.4.11 Evaluation results: Success factors, bottlenecks

Based on previously presented results, VA::TechPark has fulfilled its goals.



CROATIA

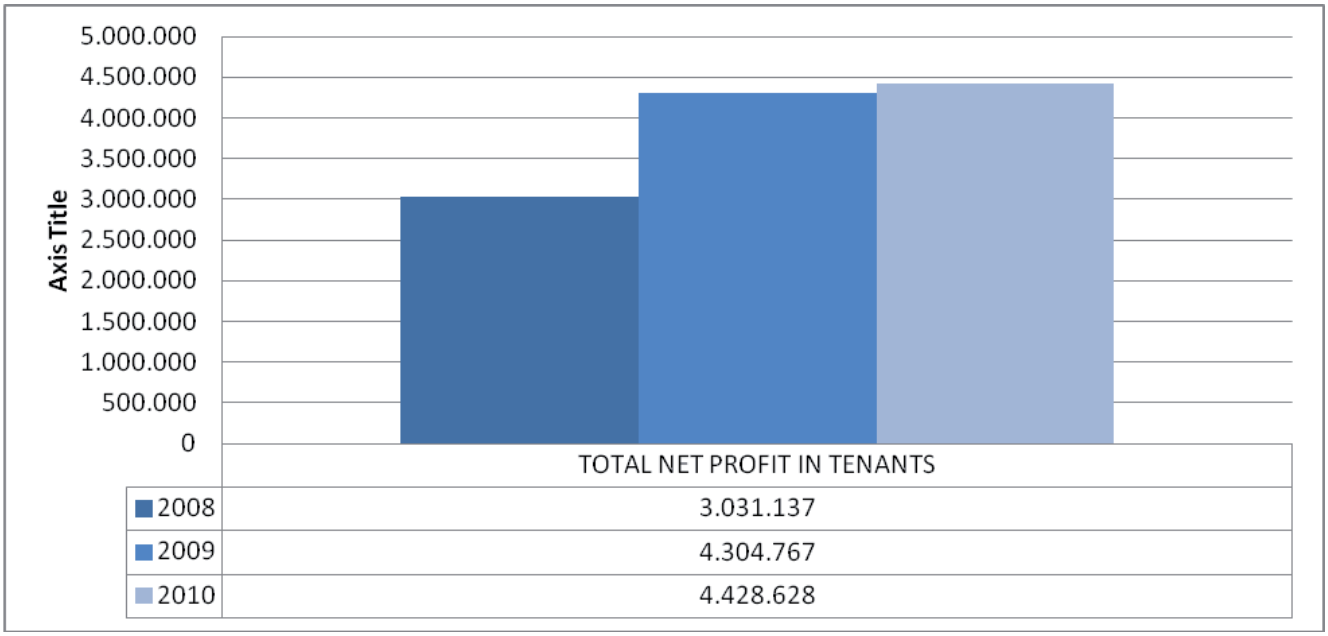


Figure 12: New employees (above) and total net profit (in HRK)

3.4.12 Sustainability

Through cooperation and networking, the incubator can transfer its idea of support model.

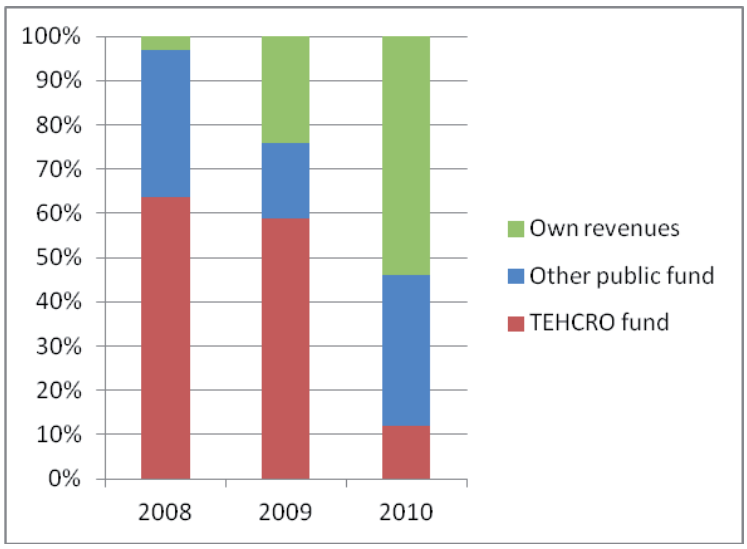


Figure 13: Revenues and funds

Occupancy ratio	2009	2010
VA::TP	88%	85%

3.4.13 Transferability

Through cooperation and networking, the incubator can transfer its idea of support model.

3.4.14 Why select scheme as good practice?

VA::TP has won the award for best technology park in Croatia in 2009.

3.4.15 Contact

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3.5 TECHNOLOGY PARK ZAGREB, PART OF THE DEVELOPMENT

3.5.1 Regional framework in which the instrument is implemented

The City of Zagreb as the city with the largest number of entrepreneurs in Croatia founded the Technology Park Zagreb (TPZ) in 1994 with the aim to foster entrepreneurs for innovation in high technologies. Also, since 1999, the City of Zagreb has been implementing a special Programme for supporting innovators from the City of Zagreb. During 12 years, in the framework of this Programme, Zagreb innovators have submitted 368 innovation applications. Out of these, the 236 best innovations have received financial support for producing their prototypes and for marketing activities (in total an amount of 2.9m kunas (€392,000)),

3.5.2 Description

TPZ is the first technological park, as entrepreneurial incubator for high technologies in Croatia. It was founded by the City of Zagreb with a mission to foster entrepreneurship and private initiatives in development and high technology. TPZ fosters small technological and development-oriented, knowledge-based companies in realisation of their entrepreneurial initiatives at the beginning of their development and growth. After 17 years of work, the TPZ represents the largest concentration of entrepreneurs in the field of development, innovation, and high technology in Croatia.
To become a part of TPZ, entrepreneurs have to meet very strong criteria:

- operate in the field of high technology, electronics, and informatics,
- constantly work in the development of their products, technologies, and services
- expand their technological capabilities of Zagreb
- be export-oriented
- have the potential for growth and development.

The Technology Park Zagreb (TPZ) now operates as a business sector within the framework of the Development Agency.

3.5.3 Level (Macro-, Meso- or Microlevel)

Microlevel

3.5.4 Main goals

- creation of new enterprises through the promotion of entrepreneurship in development and high technology in the City of Zagreb and help entrepreneurs to realise their entrepreneurial projects
- create jobs and stimulate the development of new competitive products on the market
- help young innovators and entrepreneurs in the realisation and commercialisation of their innovations and entrepreneurial projects
- create a positive climate in society for the development of entrepreneurship
- development of professional, technical, and business confidence in globalisation

3.5.5 Target groups

- SMEs
- Initiator: City of Zagreb
- Implementer: City of Zagreb

3.5.6 Budget/Funding

- City of Zagreb
- Ministry of Economy, Labour, and Entrepreneurship
- Selling the services (education, consulting, and development projects) to the market

3.5.7 Impacts/Results

The Technology Park Zagreb at the moment houses 17 companies with approximately 80 employees within their companies. The Technology Park has incubated 52 entrepreneurs with their knowledge based companies within the last 17 years. The entrepreneurs in the TPZ each year produce 25-40 new innovative products, and they export their products into 48 countries world-wide. Until today, entrepreneurs from TPZ have filed 11 patents and received 150 awards for their innovations. The Technology Park Zagreb is one of the most successful technology parks in Central Europe.

3.5.8 Evaluation results: Success factors, bottlenecks

Success factors
The Technology Park Zagreb represents the largest concentration of entrepreneurs in the field of development, innovation and high technologies in Croatia. The companies within the incubator give opportunities for new jobs to young engineers and other well-educated people.

Bottlenecks
Lack of cooperation with scientific institutions.

3.5.9 Sustainability

Sustainability largely depends on the number of new companies which deals with innovative, high-tech products and their development.

3.5.10 Transferability

Through cooperation and networking the Technology Park Zagreb can transfer its idea and way of work so that every technology park can be successful.

3.5.11 Why select scheme as good practice?

The positive evaluation results (see 4.8.10: 25-40 new innovative products yearly, export into 44 countries, 11 patents and 150 awards for innovations) are the reason to select the Technology Park Zagreb as a good practice case.

3.5.12 Contact

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3.6 TEHCRO – DEVELOPMENT OF THE INFRASTRUCTURE FOR TECHNOLOGY DEVELOPMENT

3.6.1 Regional framework in which the instrument is implemented

The TEHCRO program was adopted with the approval of the Ministry of Science, Education, and Sports as part of the Croatian Programme for the promotion of entrepreneurship based on innovation and new technologies and with the consent of the World Bank as part of the Croatian Science and Technology Project.

3.6.2 Description

The Technology Infrastructure Development Programme - TEHCRO is an extensive programme of investment in the development of technology infrastructure in Croatia, which is based on implementing three principles: investing in infrastructure – networking – education and training. The program combines investment funds from state and local levels, backed by the government through the Ministry of Science, Education, and Sports (MSES) and the World Bank through the Science and Technology Project (STP). The programme is strategically coordinated jointly by the MSES and BICRO and operationally managed by BICRO.

3.6.3 Level (Macro-, Meso- or Microlevel)

Macro level (National)

3.6.4 Main goals

Objectives

- Ensure adequate infrastructure within the scientific community that can provide a variety of services and encourages technology transfer
- Encourage the development of specialised scientific and incubation centers (particularly in the field of information and communication technology, bio- and nanotechnology), which stimulate innovative companies in their growth and development
- Assist the development of competitive R&D centers and provide training of students and researchers for work on research and development projects that are associated with industries in Croatia
- Better utilisation of intellectual capital at universities and research institutes
- Growth and development of knowledge-based enterprises
- Transfer of knowledge and technologies from universities and scientific organisations to the economy
- Improving quality and raising the competitiveness of enterprises, as well as the likelihood of their success in the market
- Introduction of good practice in conducting research and incubation processes for companies focused on high technology
- Creating an effective network of experts for conducting certain processes in technology transfer as well as for specific areas of technology

Expected outcomes and programme effects

- More effective commercialisation of research results

3.6.5 Target groups

Innovation intermediaries (Technology Business Centers, Technology Incubators, Research and Development Centers)

3.6.6 Initiator

Business Innovation Center of Croatia (BICRO)

3.6.7 Implementer

Innovation intermediaries (Technology Business Centers, Technology Incubators, Research and Development Centers)

3.6.8 Partners

-

3.6.9 Budget/Funding

- World Bank (STP project)
- Ministry of Science, Education, and Sport
- Own resources (VA::TP)

3.6.10 Impacts/Results

In 2010, the six TEHCRO centres reported a significant workflow that included:

- 781 applications for services
- 196 feasibility studies, business plans, and various funding applications completed for client companies
- 38 start-up companies being accepted into the incubation programs
- 51 entrepreneurship-promoting events organised, 41 training events organised for SMEs and the academic community, with a total of 1,677 registered participants.

The amount of high-tech tenant companies housed within the TEHCRO centers reached 52. A total of 494 people are being employed full time by tenant companies and incubatees; 177 jobs in tenant companies and incubatees are high-value added jobs (in R&D) and 217 new jobs were created in businesses in a three-year period.

3.6.11 Evaluation results: Success factors, bottlenecks

- Average time for project preparation is between 12 and 25 months
- Total value of funded projects exceeds €21.9m
- Each public-budget Euro invested through the TEHCRO programme attracts €1.34 from other funding sources intended to develop innovation infrastructure
- Today there are 7 operational TEHCRO centers throughout Croatia – in Zagreb, Rijeka, Osijek, Dubrovnik, Varaždin, Nova Gradiška, and Čakovec
- 67% of stakeholders stated that their infrastructure projects would not have been realised without TEHCRO support, and 33% said that the project would have been implemented with delays and on a significantly smaller scale
- The tenant companies stated the main reasons for locating inside the TEHCRO centers:
- Quality of services, affordable prices and flexible incubation spaces
- Attractive surroundings and positive image of the TEHCRO center
- Availability of professional business services
- Networking opportunities and collaboration opportunities with other tenant companies
- The quality of infrastructure and prices in the TEHCRO centers are highly rated by clients

3.6.12 Sustainability

All co-financed projects under TEHCRO programme had to prove in their business plans that they will reach their self-sustainability in 5 years period. All projects are still in this development phase and are still co-financed by programme. Special monitoring system is created which follows each project, specially its level of self-sustainability.

3.6.13 Transferability

Through cooperation and networking, BICRO can transfer its idea of support model.

3.6.14 Why select scheme as good practice?

Underdevelopment of the technology infrastructure hinders the development and commercialisation of new technologies and emergence of a larger population of new technology-based firms. The results achieved within the TEHCRO programme (see paragraph 11) justify selection of this scheme as the best practice for addressing technology infrastructure.

3.6.15 Contact

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4. KOSOVO*

4.1 INNOVATION CENTRE KOSOVO – ICK

4.1.1 Regional framework in which the instrument is implemented

During the period when the initiatives on building necessary innovation infrastructure were discussed, Kosovo had neither incubators nor innovation centres. A recent initiative of the Kosovo ICT Association (STIKK), supported by its members/ICT companies, decided to initiate the establishment of an Innovation Centre. In these efforts, STIKK found the partner which provided necessary support through expertise and financial means in Athene Prosjektledelse, the implementer of the Norwegian Ministry of Foreign Affairs programme in Kosovo. This Innovation Centre has recently been established and the first tenants are expected in January 2012.

4.1.2 Description

The ICK's (Innovation Centre Kosovo) mission will be to "create value through innovation". In order to achieve this mission, we will further continue building the Innovation Centre Kosovo as the leading innovation and technology convergence hub in Kosovo, facilitating the commercialisation of research & development. Implementation activities will develop ICK as the country's principal place in vocational education, utilised for better competitiveness of workforce.

ICK Services

Incubator Services

Pre-incubation Services

1. Legally constituting the company;
2. Development of the business and marketing plans;
3. Development of product/service prototype or industrial design or technical documentation

Incubation services

1. Hosting services
2. Business diagnostic
3. Coaching services
4. Mentoring services
5. Business consulting services
6. Industrial consulting services
7. Funding services
8. Business networking services
9. Training services – Business skills
10. Value-added services.

Training department services

- Delivery of commercial, certified internationally and nationally recognised training courses and non-formal courses,
- Rental of training rooms
- Overall, the Training Department will offer services to its clients, through:
- Contracting of high-quality large-scale and small-scale training providers,
- Provision of well-equipped training facilities, and
- E-Learning supported education.

Conference department services

- Hosting events (space renting)
- Organising event services.

4.1.3 Level (Macro-, Meso- or Microlevel)

Macro, Meso and Microlevel

4.1.4 Main goals

- The goal of the ICK is to support entrepreneurs during establishment of their companies and development in the field of software production.
- The incubator should improve the economic situation in Kosovo through development of its human resources.
- Reduce unemployment and increase the attractiveness of Kosovo for foreign investors.

4.1.5 Target groups

Start-ups and SMEs, technology and innovation oriented start-up companies

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

KOSOVO*

4.1.6 Initiator

Kosovo ICT Association (STIKK)

4.1.7 Implementer

STIKK and Athene Prosjektledelse

4.1.8 Partners

- Crimson Capital
- Microsoft
- Cisco
- GIZ (German International Cooperation)
- USAID
- Investment Promotion Agency of Kosovo

4.1.9 Budget/Funding

- MFA Norway
- STIKK

4.1.10 Impacts/Results

Expected to support start-up companies in boosting innovation.

4.1.11 Evaluation results: Success factors, bottlenecks

Although this centre has been established only recently, the research and contacts with companies conducted by STIKK have shown that this innovation centre will be the main platform for testing and supporting innovative business ideas. At the same time, the initiative and establishment of such a centre is considered to be good practice.

4.1.12 Sustainability

This project is developed on a business model, and it will include Angel Investment Fund as an instrument for financial sustainability of the Innovation Center Kosovo.

4.1.13 Transferability

Through cooperation and existing networking the Innovation Center can transfer its idea of support model.

4.1.14 Why select scheme as good practice?

The business-oriented approach of this project is the reason to select this Center as a good practice case. This is amongst the first initiative to support innovation activities.

4.1.15 Contact

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* This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

5. FYR OF MACEDONIA

5.1 BUSINESS INCUBATOR "YOUTH ENTREPRENEURIAL SERVICE FOUNDATION" – YES FOUNDATION

5.1.1 Regional framework in which the instrument is implemented

Like in most of the countries in the Western Balkans region, FYR of Macedonia is also experiencing difficulties in involving SMEs, especially start-ups, in the innovation support system. Large and established companies already have the necessary experience and know-how for innovation breakthroughs, but unlike them, start-up initiatives are not visible, beside the fact that they most often bring the biggest world innovations. In the year 2005, the YES Foundation was founded, after a pilot research and field analysis was made in the previous year, in order to determine the current situation with entrepreneurship, youth employment and innovation in FYR of Macedonia. Donors of this project are the Norwegian Ministry of Foreign Affairs (www.nmfa.no) and the Foundation Open Society Institute of Macedonia (www.soros.org.mk).

5.1.2 Description

The YES Foundation is a non- profit organisation that focuses on business support of start-ups, promotion of youth entrepreneurship, innovation, business development, employment, and new technologies through service and research work. With its main component, the ICT business incubator, it is the first organisation of such type in Macedonia. The companies themselves as members of the Incubator have been selected and evaluated according to the level of innovativeness of their products/services and ICT relation which is the most innovative and fastest growing technology.

To the clients, YES offers pre-incubation services such as developing business ideas, consulting services, entrepreneurial trainings, and the creation of business plans, incubation services such as well-equipped office space at affordable rents, use of common space, consulting services for all aspects of running a business, promotion of the tenants, networking, matchmaking of the member companies with potential business partners etc. YES also offers virtual incubation which includes all the services mentioned excluding the office space.

YES is a CISCO Entrepreneur Institute and is licensed to provide trainings for Starting Business and iExec essentials. YES also implements projects from various donors such as EC, the US Embassy, the Norwegian Embassy, SPARK, UNDP, USAID etc. related to in the area of conducting research regarding youth and women entrepreneurship and innovation infrastructure in the country .

5.1.3 Level (Macro-, Meso- or Microlevel)

Microlevel

5.1.4 Main goals

The goal of the YES Foundation is to attract young people that are innovative and that have ideas to start their own business, to provide them with training for business competencies, to connect them with suitable business partners in order to make them competitive on the global market, and to accelerate the growth of small and medium-sized enterprises as the basis of the national economy.

5.1.5 Target groups

Young educated people with entrepreneurship aspirations, educated unemployed people

5.1.6 Initiator

Norwegian Ministry of Foreign Affairs (www.nmfa.no) and the Foundation Open Society Institute of Macedonia (www.soros.org.mk).

5.1.7 Implementer

YES Foundation

5.1.8 Budget/Funding

Until the end of September 2010, YES was financed by Norwegian Ministry of Foreign Affairs, through the organisation SINTEF and the Foundation Open Society Institute of Macedonia, who after that have decided to withdraw. Since then, YES is funding from the rent that it is being charged to the tenant companies and implementing projects by various donors.

5.1.9 Impacts/Results

Since 2007, 53 companies have used the services of YES. At the moment there are 16 tenant companies with 54 employees, which work in the ICT sector, marketing, and matchmaking. Beside the tenant companies, there are 11 virtual member companies which work in many different sectors with over 60 employees. Over 80% of these companies are in the software industry, innovative technologies, and mobile applications and 12 of them are export-oriented and place their products and services in the USA, Germany, Switzerland, the Netherlands, and other Western countries. Eleven companies have finished the process of incubation and are now graduated and work successfully and independently on the market.

5.1.10 Evaluation results: Success factors, bottlenecks

The vision of YES is to become a crib of entrepreneurship. To be a producer of innovation and new business through continuous turnover of ideas that will give a greater contribution to the development of national economy. So far, YES is taking steps towards achieving its goals and vision.

Based on previously presented results, YES has supported entrepreneurs during the establishment of their companies and their development; so far there were 53 supported companies and 11 of them already left the incubator because of successful incubation. The companies within the incubator give opportunities for new jobs and development of human resources.

YES is one of the few organisations in FYR of Macedonia that have international visibility. It is a member of many international networks such as the World Bank's Network of Incubators, InfoDev (www.idisc.net), the EuroOffice Network (www.euroffice-services.eu), SPARK network Sensi (www.sensi.biz), the Achieve More Network (www.eandix.ning.com), and AmCham (http://amcham.com.mk/).

5.1.11 Sustainability

Unfortunately, YES is facing serious sustainability problems and there is a recognised lack of organised and sustainable support for basic functioning of the incubator from the local authorities and education institutions.

The sustainability of YES largely depends on potential funding. There is constant struggle for sufficient funds needed for sustainable financing and supporting the companies. Due to services at discount prices offered to the client companies and the withdrawal of the former donors, YES is being challenged in providing its sustainability.

5.1.12 Why select scheme as good practice?

The positive evaluation and the achieved results in section 10 and 11 are the reason to select this organisation as good practice case. YES has successfully supported the incubation of innovative companies. However, the sustainability issue has to be tackled.

5.1.13 Contact

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5.2 FOUNDATION BUSINESS STARTUP CENTRE (BSC) BITOLA

5.2.1 Regional framework in which the instrument is implemented

The FYR of Macedonia is making a lot of effort for the support of entrepreneurship and equal regional development. The Pelagonija region of south-western Macedonia has average economic indicators. Despite the economic hardships of the region, Pelagonija also possesses resources and offers opportunities for entrepreneurs and micro, small, and medium enterprises (MSMEs). The Bitola Business Startup Center (BSC-Bitola) was established to provide these opportunities for businesses and individuals through services targeting entrepreneurs, MSMEs, targeted vulnerable groups, students, and job-seekers.

5.2.2 Description

The Business Start-Up Centre Bitola was established in 2007 as a project of six partners: the Municipality of Bitola, the University "St.Kliment Ohridski", Bitola, the Regional Chamber of Commerce, Bitola, the Agency for the Promotion of Entrepreneurship of the FYR of Macedonia, the Regional Enterprise Support Center, and the Faculty for Technical Science, Bitola.

The centre was initiated by the Netherlands NGO SPARK through a grant of the Dutch Government. The main goal of the project "From idea to business" (2007-2010) was to encourage and develop entrepreneurship in Pelagonija, through opening of new small and medium enterprises, or supporting already existing ones. The Business Incubator that was opened in 2008 is a part of BSC Bitola and it plays an important role in the development and growth of small and medium-sized enterprises. The project "South East European Business Start-up Network – From Idea to Business" achieved a positive direct impact on its implementation through three main strategies: direct poverty alleviation, capacity building, and policy making. Each strategy through the 15 different results for stimulating entrepreneurship and enterprise development provided support to the various beneficiaries that contributed to the economic revitalisation of the SME sector in the FYR of Macedonia.

In April 2010 BSC, the Foundation BSC Bitola was established. The main objective of the Foundation is to contribute to the economic development in Bitola and the Pelagonija region through promoting the entrepreneurship of small and medium enterprises (SMEs). In order to accomplish its mission, the foundation supports potential and existent entrepreneurs in establishing or further developing their businesses.

From 2011 till 2013, the Foundation BSC Bitola is implementing the USAID project "Business without Borders". The goal of the project is to accelerate economic growth in south-western Macedonia by facilitating the start-up of new enterprises; the growth and competitiveness of existing micro, small, and medium enterprises (MSMEs); job creation and employment opportunities for the young, vulnerable, and unemployed; and improving the regional framework of MSMEs development through the activities of the BSC Bitola, its Business Incubator, and local & regional partners in public, private, civil-society, and academic sectors. Project implementing partners are the Municipality of Bitola, the University "St. Kliment Ohridski", Bitola, and the regional Chamber of Commerce.

5.2.3 Level (Macro-, Meso- or Microlevel)

Microlevel

5.2.4 Main goals

The main goal of the Foundation BSC Bitola is to contribute to the economic development in the FYR of Macedonia through promoting the entrepreneurship of small and medium-sized enterprises (SMEs). In order to accomplish its mission, the foundation supports the potential and existent entrepreneurs when establishing or further developing their businesses. The Foundation implements the following goals:

- Facilitation of the start-up and legal registration of new SMEs, the support and growth of existing MSMEs, and the job placement of individuals in MSMEs in the nine municipalities in the Pelagonija region plus Ohrid.
- Improvement of the financial and operational sustainability of the existing BSC Bitola business incubator.
- Improvement & enhancement of the interaction between public, private, civil-society, and academic sectors at municipal, regional, and national levels through cooperation and collaboration in economic development initiatives.

5.2.5 Target groups

Entrepreneurs, potential entrepreneurs, people who want to upgrade their knowledge in the area of entrepreneurship

5.2.6 Initiator

The Business Start-Up Centre was initiated by the Netherlands NGO SPARK through a grant of the Dutch Government, supported by: the Municipality of Bitola, the University "St. Kliment Ohridski", Bitola, the regional Chamber of Commerce, Bitola, the Agency for the Promotion of Entrepreneurship of the FYR Macedonia, the Regional Enterprise Support Center, and the Faculty for Technical Science, Bitola.
The Foundation is supported by the Municipality of Bitola, the University "St. Kliment Ohridski", Bitola, and the regional Chamber of Commerce.
Currently the Foundation is implementing the three-year USAID project (2011-2013) "Business Without Borders".

5.2.7 Implementer

Foundation Business Start Up Centre Bitola

5.2.8 Partners

The Municipality of Bitola, University "St. Kliment Ohridski", Bitola, and the regional Chamber of Commerce.

5.2.9 Budget/Funding

Currently the Foundation implements the USAID project "Business without Borders" with a $1.3m budget. Previously, BSC implemented a project "From idea to business" with a €1.5m budget.

5.2.10 Impacts/Results

BSC Bitola has achieved positive results in the support of people who want to open a company or who already have a company. The evaluation results (no. 11) clearly show that a lot of companies are supported and over 2,000 people have participated in the business trainings and have gained practical business knowledge and skills.

5.2.11 Evaluation results: Success factors, bottlenecks

The results of the evaluation from the previous project "From idea to business" are successful and fulfil the targets. The table below presents the numbers:

Table 2: Some numbers on BSC Bitola evaluation

1. Supported companies	120
2. Job places	269
3. Number of business plans submitted	270
4. Promoting export and new employment in small and medium-sized enterprises through co-financing of internationally recognized standards such as ISO, HACCP, CE	Total amount of support €200,000 Number of companies: 53
5. Support of small and medium-sized enterprises through micro credits	Total amount of support €250,000 Number of companies: 33
6. Number of business trainings conducted	108
7. Number of participants in the business trainings	2,136
8. Number of consultations for SMEs in hours	2,690

Table 3: Results from the project "Business without Borders" (01/2011 to present)

	RESULT-January 2011 to present
Jobs created	27; 11 women
New MSMEs Registered	12; 4 women
Existing MSMEs Strengthened	23; 8 women
Consulting Services	54 assignments; 70.88 days
Business Plans Submitted	63; 18 women
Total Participants Trained	445; 205 women
Business plan writing seminars	11
Business skills trainings	12
Business skills trainings and trainings for writing business plan	23

5.2.12 Sustainability

One of the objectives of the current project "Business without Borders" is to improve the financial and operational sustainability of BSC-Bitola so as to reduce or eliminate the necessity for future international donor support by developing new revenue streams, expanding space and operations, implementing cost-share practices, reducing expenses, and increasing shareholder and partner inputs. Currently BSC receives funds from tenancy fees from the tenants of the Business Incubator, fees from the participants of business trainings, members of the affiliate programme of the Incubator, equipment rental, etc., though this is far from enough for sustainable operation.

5.2.13 Transferability

BSC Bitola through organisation of different type of business events is sharing the experience, as well as through participation on a number of conferences, seminars, workshops etc. Through the process of networking, BSC also is presenting the positive practices and examples of its work.

5.2.14 Why select scheme as good practice?

The positive evaluation (see 11) is the reason to select BSC Bitola as a good practice case. Furthermore, BSC Bitola has reached significant results in the area of support of entrepreneurship, has created and supported a lot of jobs and improved the economic situation in the Pelagonija region. Also BSC Bitola has implemented other smaller projects, currently it is a partner in the CIP-funded project "The New Mentor Project", which focuses on the setting up of a national network of mentors for women entrepreneurs in Macedonia aimed at supporting female entrepreneurship development. Furthermore, BSC Bitola has published over 10 publications on the field of business and entrepreneurship.
Also in the frame of the current project "Business without Borders" it is planned to develop a Technology-Transfer Toolbox with a set of development tools specifically targeting technology development and transfer that will be developed as an outcome of the Regional Technology Sector Assessment and discussions with local partners, clients and stakeholders.

5.2.15 Contact

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5.3 FOUNDATION FOR MANAGEMENT AND INDUSTRIAL RESEARCH, MIR

5.3.1 Regional framework in which the instrument is implemented

The Foundation for Management and Industrial Research was established in 2002 as a joint Macedonian-Norwegian initiative aimed towards supporting the business development and transfer of know-how between the academic and SME sector in the FYR of Macedonia. The initial focus on applied research and technology in 2005 was extended to providing business support services to SMEs and entrepreneurs from all regions of the country in the fields of: internationalisation, entrepreneurship, and value chain improvements. In 2007, following closely the national priorities and EU wide trends, the Foundation for Management and Industrial Research has started the initiative for setting up the Innovation Relay Centre in the FYR of Macedonia, as part of a large European network for trans-national technology transfer and shifted its focus largely to research and innovation in the service of sustainable development. Since 2008, the Foundation is technology transfer partner in the Enterprise Europe Network, an active member of the Europe INNOVA community as well as a member of Technology Innovation International, the largest European independent association for technology.

In line with the Europe 2020 objectives and national priorities outlined in SBA and other relevant policy papers, in 2010 the Foundation has introduced two more areas of research – eco-innovations and environmental practices as well as female entrepreneurship. Since September 2011, the Foundation has been a coordinator of the national network part of the European Network of Mentors for Women Entrepreneurs and has established a separate eco-innovation technology watch unit.

The Foundation for Management and Industrial Research is an excellent example of how one small donor-supported initiative can – through careful strategic planning, capacity building and investment – be developed into a sustainable organisation and one of the key private players in the field of sustainable development.

5.3.2 Description

The Foundation for Management and Industrial Research is focused on developing tools, schemes, and initiatives for sustainable growth of the business sector, particularly in the following areas:

- Economic development including: SME improvement projects, internationalisation, promoting entrepreneurship etc.
- Research & Innovation: transnational technology transfer, technology and innovation audits, technology watch, research for the benefit of SMEs etc.
- Environment: promoting best environmental research results from the country, eco-innovation helpdesk, social research network for establishing partnership agreements between partners from Macedonia and other European countries etc.
- Society: impact assessments, strategy development for rural areas or municipalities, new skills for people with disabilities etc.

The Foundation has a client data base of over 300 SMEs, innovators, business support organisations, and municipalities from different parts of the country. The Foundation cooperates closely with many governmental and non-governmental organisations in the design of support measures and delivery of services to its clients. Delivery of trainings and custom-made capacity building programmes in all above-mentioned areas to the clients are also part of the regular activities of the Foundation.

5.3.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also at meso- and microlevel)

5.3.4 Main goals

- Support sustainable economic growth and competitiveness
- Contribute to increased employment and learning in a knowledge society
- Promote social cohesion and welfare
- Protect, preserve, and improve the environment

The specific goals of the Foundation include:

- Contributing to the development of the Macedonian SME sector
- Encouraging and promoting of innovations, improving innovation system and technology transfer
- Fostering the development of an entrepreneurial society
- Fostering lifelong learning, education, and training as the basis for employment and economic progress
- Support of research and development
- Combating social exclusion and discrimination on the labour market
- Promoting gender equality, integration, and diversity in a society for all
- Promoting intelligent energy use and sustainable environmental development

5.3.5 Target groups

Existing and new SMEs, innovators and technology holders, business support organisations

5.3.6 Initiator

SINTEF, Norwegian institute for research and development (www.sintef.no)

5.3.7 Implementer

Foundation for Management and Industrial Research

5.3.8 Partners

Innovation Development Norway

5.3.9 Budget/Funding

The Foundation for Management and Industrial Research is funded through participation in EU projects and seconding researchers and experts for consultancy purposes.

5.3.10 Impacts/Results

Until end of 2011:

- Sustainable operation since 2006 (end of donor support)
- Participation in two large European networks: Enterprise Europe Network and European Network of Mentors for Women Entrepreneurs
- Established working relations with the most relevant innovation stakeholders in the country and abroad
- Implemented large number of company improvement projects, provided numerous technology transfer services and organised several events for internationalization
- Developed a custom-made methodology for scanning the AS-IS situation in companies and reaching the TO-BE situation ('Operations Model')
- Developed an innovation aid toolkit consisting of three tools: tool for technology and innovation audit, tool for provisioning of 3-level IPR services, and technology watch methodology
- Developed an eco-innovation technology watch unit ('ECO INNO') focusing on: latest environmental technologies, legislation and standards help desk, info point etc. (soon also available online)
- Created an IPR manual for EEN professionals (submitted as good practice within the Network) and IPR guide for SMEs
- Participated in 10 large international projects, including FP7 projectsNational coordinator of the European Network of Mentors for Women Entrepreneurs

5.3.11 Evaluation results: Success factors, bottlenecks

The key factors contributing to the overall success of the Foundation are the following:

- Focus on untapped areas with high potential for business development
- High emphasis on building capacities of the staff – not just administering projects, but taking the advantage to learn from best researchers in industrial engineering from SINTEF, Norway
- Following and introducing innovative tools and methodologies for innovation and business support, always adjusted to local conditions
- Initiating projects based on realistic needs in the country (demand driven), following closely the work of others (avoiding redundancy and promoting synergy) as well as the national and EU priorities in the fields relevant for work of the Foundation
- Strategic and long-term planning of the operation, including strategic planning of sustainability (or exit strategy almost since the establishment)
- Introduction and respecting highly professional Code of Conduct, with strong emphasis on partnering with clients, collaborators, and all other relevant stakeholders
- Diversification of its portfolio of activities but at the same time always maintaining a connection links between the areas i.e. economic aspects, competitiveness, and innovation.
- Continuous learning, networking on national and international level as well as re-investing money in new opportunities, partner searches and expanding the field of operation.

The key bottlenecks on the other side mainly refer to the rather limited market in the country, lack of readiness for adopting both technological and non-technological innovations and financial constraints related to the employment of a higher number of junior and senior researchers. The Foundation is spending significant efforts to overcome some of these barriers through spreading its operation to the regional level, joint initiatives with other stakeholders in the country, establishing a highly competent and proven pool of external experts etc.

5.3.12 Sustainability

The Foundation has achieved and maintained its sustainability in the past 5 years. The main threat to continuing stable growth is the inability to attract continuous funding for its current operation and development. The strategic plan of the Foundation (2012-2017) takes into consideration all sustainability-related risks and has clearly identified measures for mitigating the risks, focusing among other things on new services and competences.

5.3.13 Transferability

The Foundation can serve as a model for other donor-initiated organisations willing and capable of growing into sustainable business support organisations and becoming part of the innovation infrastructure in the country or the region. Some of the innovation tools developed by the Foundation can also be a subject of transferability upon certain conditions, considering that they are a secret know-how of the Foundation.

5.3.14 Why select scheme as good practice?

The Foundation for Management and Industrial Research has hands-on experience related to innovation and technology transfer and is well aware of the real needs and capacities of the business sector. It is an example of a successful spin-off from donor-supported projects that become one of the stakeholders in promoting and supporting competitiveness and innovativeness of the Macedonian businesses and innovation players.

5.3.15 Contact

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5.4 NATIONAL CENTER FOR DEVELOPMENT OF INNOVATION AND ENTREPRENEURIAL LEARNING – NCDIEL

5.4.1 Regional framework in which the instrument is implemented

The National Center for Development of Innovation and Entrepreneurial Learning (NCDIEL) was established in November 2009 with financial support of the Austrian Development Cooperation as a successor institution of the Business Start-up Centre established in 2006 at the Faculty of Mechanical Engineering, Ss. Cyril and Methodius University in Skopje.

The Centre operates as a non-for-profit and non-governmental organisation and has two offices: a) at the Faculty of Mechanical Engineering and b) at the Agency for Promotion of Entrepreneurship of the Republic of Macedonia.

5.4.2 Description

The NCDIEL is an active partner in several projects, like "South-East European Co-operation of Innovation and Finance Agencies 2009-2012" (www.see-ifa.eu). The SEE-IFA Network aims at strengthening the capacity for effective provision of innovation, technology, and finance support to micro, small and medium-sized companies. The development of NCDIEL is also based on the recommendations from the European Training Foundation (www.etf.europa.eu) and the Southeast European Center for Entrepreneurial Learning (www.seecel.hr).
NCDIEL is designed as a centre opened for innovative, technology-based and profit-oriented ideas. It has a selection system that starts with on-line application of business ideas, followed by selection of the best 80-90 ideas, training in 13 modules on entrepreneurship and small business management topics, business plan competition and finally ending with at least 10 newly founded companies. The Centre's activities continue with the provision of seed capital for start-ups, counseling, and coaching of the established companies, with a view to of strengthening the capacities of newly established companies to successfully operate and grow on the market.

5.4.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also on meso and microlevel)

5.4.4 Main goals

- To analyse and evaluate the current state in the area of innovations, entrepreneurship, technological development, and competitiveness of enterprises and national economy
- To stimulate the development of new entrepreneurial culture to match the knowledge and innovation society
- To encourage entrepreneurial learning at all levels of education, both formal and informal, in order to spread an entrepreneurial spirit among the population
- To facilitate understanding of innovation as a way of how our society changes and improves
- To spread acceptance that innovation is the way we do business, the way we work, the option we choose as consumers and citizens
- To support the preparation of feasibility studies and founding of business start-up centres, incubators, and technology parks
- To provide start-up training and financial support for the most innovative business ideas and their coaching to high-grow profitable businesses
- To create/develop strategies for innovations, entrepreneurship and competitiveness at all levels (company, cluster, municipality, region, state, etc.)
- To provide soft landing services for foreign technology-based companies that would like to invest in the FYR of Macedonia (innovation-related diligence, staffing support for engineers, local partner search, etc.)
- To provide technical support to the SME policy makers

5.3.5 Target groups

Primary target group:
1. University and high school teaching staff
2. Recent graduates and students from all Macedonian Universities
3. Students from Macedonian high schools and primary schools
4. Policy makers (Government, Ministries, Agencies)

Secondary target group:
1. Associations
2. Financial institutions
3. Consultants
4. Small and medium-sized enterprises
5. Business support organisations
6. State institutions/agencies
7. Chambers of commerce

5.3.6 Initiator

Staff from Faculty of Mechanical Engineering

5.4.7 Implementer

Staff from Faculty of Mechanical Engineering

5.4.8 Partners

- Ministry of Economy of the Republic of Macedonia
- Ministry of Education and Science of the Republic of Macedonia
- Agency for promotion of entrepreneurship in the Republic of Macedonia
- Bureau for Development of Education
- Macedonian Chambers of Commerce, Chamber of Commerce of Macedonia Chamber of Commerce of Northwest Macedonia
- Faculty of Mechanical Engineering, Ss. Cyril and Methodius University
- Centre for Research, Development and Continuous Education

5.4.9 Budget/Funding

The main operational costs are covered by host institutions (Faculty of Mechanical Engineering and Agency for Promotion of Entrepreneurship in the Republic of Macedonia). Main NCDIEL income is coming through participation in projects – both national and EU.

5.4.10 Impacts/Results

Until end of 2011

- Support the establishment of 40 start-up companies
- Collected more than 1,200 business ideas for 5 cycles of a business plan competition
- Trained more than 3,000 persons on different topics
- Awarded more than €50,000 of seed capital
- Analysis of private sector innovation activities, for the need of the OECD Regional Competitive Initiative project: Developing Innovation Policy for the Republic of Macedonia 2012-2020
- Analysis of Innovation infrastructures in the Republic of Macedonia, Report for project WBC-INCO.NET, Centre for Social Innovation (ZSI) as a part of WP8: Innovation Support to organise a mapping of Innovation Infrastructures in the Western Balkans region
- Technical assistance in the preparation of the new SME Programme 2011-2013
- Support for the realisation of the Summer School on the topic "Leadership in innovative technology", organised by the student organisation BEST
- Organisation of the 4th International Conference for Entrepreneurship, Innovations and Regional Development – 5-7 May 2011, Ohrid, FYR of Macedonia (under the auspices of H.E. Dr. Gjorge Ivanov, President of the Republic of Macedonia, and in partnership with the European Academy of Sciences and Arts, the Macedonian Academy for Sciences and Arts and the European Council for Small Business and Entrepreneurship) – www.iceird.org/2011/
- Organisation of the National most innovative business plan competition, 2007-2011
- Organisation of the National best business plan competition for high schools in FYR of Macedonia, 2008-2011
- Promotion and support in development of Craftsmen strategy for the FYR of Macedonia, January 2011
- Implementation and promotion of the European Innovation Scoreboard in the FYR of Macedonia, April 2010-January 2011
- Trainings for high school teachers and students delivered, as part of the preparation for the "National best business plan competition for high schools 2011", November 2010-January 2011
- Support to establishment of the National Accreditation System for Consultants
- Co-organisation of "Entrepreneur of the year", December 2009, 2010, and 2011
- Leading the national team in the Global Entrepreneurship Monitor 2008 and 2010 for the FYR of Macedonia
- Microsoft Networking Partner for BizSpark program (IT Microsoft software support to start-up businesses in the FYR of Macedonia)
- Organisation of the Conference "Commercialisation of R&D", 12 May 2010, Skopje
- Co-organisers of EU Day of Entrepreneur and EU SME week 2009, 2010, and 2011
- Celebration of World Entrepreneurship Day – 16 April 2010 (as a hub institution in the FYR of Macedonia)
- Realisation of the survey on Women entrepreneurship in the FYR of Macedonia (Nov 2009-Mar 2010)
- Support to International Conference "Entrepreneurship in Higher Education" organised by ETF, University of St. Kliment Ohridski and City of Bitola, Bitola, FYR of Macedonia, 20 Nov. 2009
- ~ 30 military officers trained in series of trainings in the field of Entrepreneurship and Small business management - "LEPEZA" project (re-socialisation of dismissed army officers), project organised by the Ministry of Defence and funded by the Kingdoms of Norway and Denmark
- Development of online curricula and teaching materials on Entrepreneurship and Small business management for 4 the biggest Universities in FYR of Macedonia (within TEMPUS SCM project)
- Support to the Faculty of Mechanical Engineering for the creation of a Career Centre (with database of > 3,000 CVs from students/graduates from engineering faculties)

Partnerships and projects of NCDIEL staff:

- New Mentor Project (National network of Mentors for Women Entrepreneurs) – part of the European Network of Mentors for Women Entrepreneurs (www.newmentor.mk)

- Central European Initiative (CEI - www.ceinet.org) support to ICEIRD 2011"Capacity Building for Development of Knowledge Based Economy", assistance to the Agency for Promotion of entrepreneurship in Macedonia, project financed by the Austrian Development Cooperation (Jul 2009-Jun 2012) (www.entrepreneurship.mk)
- SEE Trans-national Cooperation Programme – Project "South-East European Co-operation of Innovation and Finance Agencies", (2009-2012) (www.see-ifa.eu)
- For the Ministry of Education and Science of the Republic of Macedonia through a World Bank project cs/cq/1.0/phrd "Employer Survey of Skills and Labour Demand in Macedonia", with the Business Start-Up Centre as part of the consortium that conducted a survey on > 1,700 companies
- ETF-SM-00013-2008, TEMPUS, "COMPETENCE - Matching competences in higher education and economy: From competence catalogue to strategy and curriculum development", Coordinator: University of Zenica, BiH (2009-2012) (www.link-competences.org)
- ETF-SM-00066-2008, TEMPUS, "Creating R&D Capacities and Instruments for boosting Higher Education-Economy Co-operations"; Coordinator: Montanuniversität Leoben (2009-2012) (www.rd-capacities.org)
- Partner of European Training Foundation (ETF) for the project: Entrepreneurial Learning in Higher Education (eee.etf.europa.eu)
- European Academy of Sciences and Arts (from 2009), Salzburg, Austria (www.euro-acad.eu)
- Founders of ICEIRD (International Conference for Entrepreneurship, Innovations and Regional Development) network (www.iceird.org)
- GEM (Global Entrepreneurship Monitor) programme leader for Macedonia (www.gemconsortium.org)

5.4.11 Evaluation results: Success factors, bottlenecks

Success factors:
- Strong commitment of NCDIEL staff
- Strong support from key stakeholders
- Good international reputation
- Wide knowledge background of the staff

Bottlenecks:
- Sustainability issues
- Sometimes lack of political support from certain institutions

5.4.12 Sustainability

Since the main sources for financing of the activities of NCDIEL are funds gained from donor projects, the sustainability of the institution is always an open issue. However, its staff's past experience comprises more than 20 international and national projects, current services, and new service that NCDIEL is planning to develop in the near future, which is a good base for its sustainability. Furthermore, NCDIEL's close connection with the Faculty of Mechanical Engineering and the Agency for the Promotion of Entrepreneurship is an additional guarantee for the long-term success of NCDIEL.

5.4.13 Transferability

The key factor for the positive NCDIEL impact to the environment are the good relations and coordination with the co-host institutions (Faculty of Mechanical Engineering and the Agency for the Promotion of Entrepreneurship) as well as with the Ministry of Economy and the Ministry of Education and Science.

5.4.14 Why select scheme as good practice?

NCDIEL is a good example of how a donor-driven project is transformed into a think-tank community that is providing much valuable advice/suggestions to the state institutions. As an example, some of the NCDIEL projects/activities are becoming regular activities within state institutions, such as:
- Implementation of the European Innovation Scoreboard (Ministry of Economy)
- National business plan competition for secondary schools (Ministry for Education and Science and Biro for development of education)
- Regular training of secondary school professors on the topic of entrepreneurship (Agency for promotion of entrepreneurship and Biro for development of education)
- Support of student job fairs and career consulting (Agency for the Promotion of Entrepreneurship), etc.

5.4.15 Contact

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MONTENEGRO

6. MONTENEGRO

6.1 INCUBATOR "INVENTIVNOST"

6.1.1 Regional framework in which the instrument is implemented

The Government of Montenegro adopted the Strategy for ICT Development in 2004. The Business Incubator Inventivnost was established in December 2008 as the first ICT incubator in Montenegro and as a support centre for small and medium-sized enterprises in the field of ICT. In January 2011, the Strategy for SME Development was adopted, covering the period 2011-2015. It focuses on creating better business conditions and entrepreneurship for SMEs and includes several measures to stimulate and monitor research activities of SMEs. In designing and implementing the SME policy, Montenegro is applying the principles of the Small Business Act and participates in the process of monitoring led by the European Commission and the OECD. Montenegro is developing an enterprise policy in line with EU principles, particularly in the area of innovation support for SMEs.

6.1.2 Description

The Business Incubator Inventivnost was established by the Government of Montenegro and the Municipality Podgorica as a development project and model of self-employment in accordance with the Strategy of Development of Small and Medium-Sized Enterprises in the field of informational technologies. The Business incubator prepares entrepreneurs for starting their own businesses, through education, training programmes, permanent consulting, and a mentoring program. The Incubator facilitates their success in the world of entrepreneurship and provides support in the early stage of business development (rental of office and research space, technology and telecommunications infrastructure), administrative support and business consulting (business plan, management, marketing...). The Incubator helps in the development and strengthening of partnerships between national, regional and local levels, public and private sector, donor community and national partners. The incubator helps new small innovative companies and members of incubators in the elimination of beginners' difficulties and the successful development of private businesses.

6.1.3 Level (Macro-, Meso- or Microlevel)

Micro-level and meso-level

6.1.4 Main goals

- Support entrepreneurs when establishing their companies
- Support innovation and development of new technologies
- Participation in the economic development of the region
- Reduction of unemployment rate
- Increase the number of small and medium-sized companies
- Reduce the risk of business to start-up companies

6.1.5 Target groups

entrepreneurs

6.1.6 Initiator

The Government of Montenegro and the Municipality of Podgorica

6.1.7 Implementer

The Municipality of Podgorica

6.1.8 Partners

- Directorate for development of small and medium-sized enterprises
- EC office in Montenegro
- Netherlands Agency SPARK
- BSC Bar

6.1.9 Budget/Funding

- Municipality Podgorica
- Directorate for development of small and medium-sized enterprises

6.1.10 Impacts/Results

The Incubator now has 11 tenants and 32 employees within the companies.

6.1.11 Evaluation results: Success factors, bottlenecks

In the past, the Incubator Inventivnost conducted a series of activities aimed at further promoting this project nationally and abroad. In addition, the incubator worked on improving the skills of its tenants as well as monitoring their business activities. The Incubator has initiated several development projects in cooperation with similar organisations from Montenegro and the environment. All of the company "tenants" are in business successfully, although the crisis has affected the market.

Based on previously presented results, the Incubator Inventivnost fulfilled its goals having international visibility. The Business Incubator Inventivnost in 2009 became a member in an organisation called ECAbit (Eastern European and Central Asian Business Incubators and Technology Parks Network), which is under the auspices of a global network of business incubators, InfoDev, a project supported by the World Bank.

6.1.12 Sustainability

Sustainability largely depends on potential funding. There is a constant struggle for sufficient funds needed for sustainable financing of the Incubator. Other factors of sustainability include ability of the incubator to have more space for new tenants.

6.1.13 Transferability

Through cooperation and networking the incubator can transfer its idea of support model.

6.1.14 Why select scheme as good practice?

The positive evaluation (see 11) is the reason to select this incubator as good practice case.

6.1.15 Contact

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6.2 THE RESEARCH AND DEVELOPMENT SERVICE CENTRE (R&D SC) AT THE UNIVERSITY OF MONTENEGRO

6.2.1 Regional framework in which the instrument is implemented

Until recently, the University of Montenegro (UoM) had very few structures at central level dealing with international projects, innovation, IPR issues, project management, etc. Instead, all projects (except those concerning student mobility) have been managed at department/faculty level and the University did not even have any insight into ongoing projects. Moreover, the University also lacked a common plan, rules, and procedures on improvement of research performance. Starting from 2007, the UoM has been involved in several important projects dealing with these issues. The UoM took advantage of these projects to adopt the Research Action Plan and establish some offices at central level.

6.2.2 Description

The Research and Development Service Centre at the University of Montenegro (R&D SC) was formally established in October 2009 within the framework of the TEMPUS project „Creating R&D Capacities and Instruments for boosting Higher Education–Economy Cooperation" ("R&D capacities"). In the framework of the same project, three more R&D centres have been established at the universities of Sarajevo, Skopje, and Prishtina. This year, as the second anniversary is approaching, one could say that the R&D SC is strongly embedded into the university structure and recognised as an important unit providing administrative and management services.

6.2.3 Level (Macro-, Meso- or Microlevel)

Micro-level and meso-level

6.2.4 Main goals

The position and responsibilities of the Centre are clearly defined in the Research Strategy Action Plan at the UoM until 2013. The Centre works under the supervision of the Vice-Rector for international cooperation and scientific affairs. The main goal of the R&D centre is to boost research capacities at the UoM and the potential for commercialisation of research by support in application processes, project management, cooperation with industry, etc.

6.2.5 Target groups

University of Montenegro, national government agencies, local companies

6.2.6 Initiator

University of Montenegro

6.2.7 Implementer

University of Montenegro

6.2.8 Partners

WUS-Austria, University of Leoben (Austria), University of Oxford, University La Sapienza

6.2.9 Budget/Funding

The R&D Service Centre is funded mostly by the TEMPUS project "R&D capacities" until the end of the project in January 2012. A part of the budget is also provided by the UoM. Starting from 2012, the R&D SC will be funded from other projects running at the UoM.

6.2.10 Impacts/Results

The R&D SC has organised or taken part in numerous (and various) activities. These activities include: initiatives for new projects, participation in proposal writing, support in project application process, organisation of various workshops, meetings with researchers, meetings with companies and agencies, promotional activities, project management. As one of the latest activities, the R&D SC has taken part in organising a competition of student inventions at the UoM. The Centre is also involved in collecting data on ongoing projects and all available equipment at UoM. The Centre itself currently manages six international projects. By the end of 2011, three out of six projects will finish, whereas two new projects are to start by the beginning of 2012. The biggest success of the Centre is that it proved to be a reliable, important, and self-sustainable service provider inside the University.

6.2.11 Evaluation results: Success factors, bottlenecks

In the framework of FP7 project "Evolunimont" the UoM went through external evaluation of its research potentials. R&D SC has been evaluated in the framework of the project "R&D capacities" at two levels: internal (by the project partners) and external (by an institution which is not the project partner) evaluation. The final results of both evaluations will be known by December 2011. The preliminary results of the evaluations are very positive with some comments and advice for improvement.

The major bottleneck is due to the fact that most of the development projects at UoM is traditionally managed at department/faculty level. The second obstacle is that R&D SC is formed in times of budget cuts when even small funding is not easily available.

6.2.12 Sustainability

There are no doubts that the R&D SC will remain fully functional after the completion of the project "R&D Capacities" in December 2011. It is therefore evident that the Centre is one of many sustainable outcomes of the project. The UoM expressed its commitment to rise its portion in funding of R&D SC even despite budget cuts. The remaining funding for the R&D SC is to be provided from new projects involving the UoM.

6.2.13 Transferability

The R&D SC has already transferred its experience and good practices to some partner universities. It turned out that experience of the UoM was valuable for some neighbour universities.

6.2.14 Contact

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7. SERBIA

7.1 BUSINESS INCUBATOR ZRENJANIN

7.1.1 Regional framework in which the instrument is implemented

During the period when the initiatives on building the necessary innovation infrastructure were discussed [1], the Province of Vojvodina had no single incubator. In that case Vojvodina Investment Promotion Fund decided to initiate the establishment of an incubator and found the partner, the needed support and good will in the Municipality of Zrenjanin. When in 2006 the Business Incubator Zrenjanin (BIZ) was established, it was the first incubator in the region of Vojvodina and the first ICT incubator in the Republic of Serbia.

It is also important to note that the Law on Innovation came into force in 2005, which was also one of the turning points that enabled the establishment of the incubator.

7.1.2 Description

The Business Incubator Zrenjanin was established by Vojvodina Investment Promotion – VIP and the Municipality of Zrenjanin as a development project and specific model of self-employment that should bring new jobs in the ICT sector. It was founded to support the entrepreneurial process of companies involved in information technologies and encourage their innovation to the level of success.

The policy of the Incubator is that only entrepreneurs with feasible IT projects can become tenants of the Incubator, which will provide them with more models of service, support and resources. BIZ provides a formal organisational environment management, an organised system of planning, monitoring and development of tenants, a measurement of system performance, organisation of training and education, including assistance in preparing a business plan, marketing, market research, assistance in developing technical and other documentation, and obtaining the appropriate certificate.

7.1.3 Level (Macro-, Meso- or Microlevel)

Microlevel

7.1.4 Main goals

- The goal of the Business Incubator Zrenjanin is to support entrepreneurs during the establishment of their companies and development in the field of software production in Zrenjanin, Banat, Vojvodina, Serbia.
- The Incubator should improve the economic structure of the Banat region and develop its human resources.
- Reduce unemployment and increase the attractiveness of Banat and Zrenjanin for foreign investors.

7.1.5 Target groups

entrepreneurs

7.1.6 Initiator

Municipality of Zrenjanin

7.1.7 Implementer

Municipality of Zrenjanin

7.1.8 Partners

- State Agency for Small and Medium Enterprises
- GTZ (German Technical Cooperation)
- Entrans
- OEBS
- Vojvodina Investment Promotion Fund

7.1.9 Budget/Funding

- Austrian Development Cooperation
- Municipality of Zrenjanin and
- Vojvodina Investment Promotion Fund

7.1.10 Impacts/Results

The Incubator now has 12 tenants and 35 employees within the companies. So far, 8 companies have left the incubator because of successful incubation.

7.1.11 Evaluation results: Success factors, bottlenecks

Based on previously presented results, the Business Incubator Zrenjanin has fulfilled its goals, having supported entrepreneurs during the establishment of their companies and their development. So far, 21 companies have been established and 8 of them have already left the incubator because of successful incubation. The companies within the incubator give opportunity for new jobs and development of human resources.
The Incubator Zrenjanin is one of the few incubators that have international visibility. It is connected to the European Enterprise Network and gives its tenants the opportunity to present their innovations on this network.
But there is a recognised lack of organized and sustainable support for the basic functioning of the incubator from the authorities. Also, although the incubator cooperates with experts from the Institute Mihajlo Pupin, there is insufficient and insufficiently organized cooperation with R&D and the innovation community in Serbia.

7.1.12 Sustainability

Sustainability largely depends on potential funding. There is a constant struggle for sufficient funds needed for sustainable financing of the tenants.

7.1.13 Transferability

Through cooperation and networking, the incubator can transfer its idea of support model.

7.1.14 Why select scheme as good practice?

The positive evaluation (see 11) is the reason to select this incubator as a good practice case.

7.1.15 Contact

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7.1.16 References

IRDP, (2003), "Integrated Regional Development Plan of Vojvodina", AP of Vojvodina Executive Council, Gesellschaft für Technische Zusammenarbeit (GTZ) and Centrum für Internationale Migration und Entwicklung (CIM), Novi Sad, 2003

SERBIA

7.2 COMPETITION FOR BEST TECHNOLOGY INNOVATION

7.2.1 Regional framework in which the instrument is implemented

The project Competition for Best Technology Innovation was initiated in 2005 by the Ministry of Science and Environmental Protection of Serbia. The idea for this project came from the Faculty of Technical Science, Novi Sad, based on a successful pilot competition for its students conducted in 2003. The success of this competition initiated a proposal for a national competition to the Ministry of Science and Environmental Protection. The cooperation between the Ministry of Science and Technological Development of Serbia and the Ministry of Science and Technology of Republic Srpska started in 2007 – so the Competition for Best Technology Innovation was also organised on the territory of the Republic Srpska.

7.2.2 Description

The Project Competition for Best Technology Innovation promotes entrepreneurship in Serbia and gives assistance to potential and existing entrepreneurs, who are willing and able to develop ideas and inventions providing the market with valuable innovations.
The basic idea of the Competition is that the combination of innovation and entrepreneurship are the recipe for competitiveness for all individuals, companies, universities, and the State. This creates the wish to promote an entrepreneurial spirit among researchers, students, innovators, creative individuals, teams, and companies, especially those who will contribute through its activities to the economic life of Serbia to be quickly transformed into a knowledge-based economy.
The competition has several rounds depending on the competitive categories. In all categories, two rounds are required. In the first round of the competition, a summary report has to be submitted via Internet. Candidates that pass the first round get access to some expertise through training and consultation to create an innovative strategy for the new or substantially altered product / service / process / software on the market.
The second round requires preparation of a business and marketing plan (depending on the category in which the team competes). These participants receive assistance in developing their business or marketing plan through vocational training and other forms of coaching.
Competitors who show the greatest progress have the opportunity to present their ideas publicly in the semi-finals / finals including a defense of their business and marketing plans in front of a jury. During the competition, over a hundred reviewers evaluate applications and business and marketing plans.

7.2.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also on meso and microlevel)

7.2.4 Main goals

- The Competition for the Best Technology Innovation aims at promoting an entrepreneurial climate in Serbia.
- Give assistance to potential and existing high-tech entrepreneurs who are willing and able to develop ideas and inventions, providing the market with valuable innovations.

7.2.5 Target groups

Potential and existing high-tech entrepreneurs

7.2.6 Initiator

- Ministry of Science and Technological Development (now Ministry of Education and Science) and
- Faculty of Technical Science, Novi SadMinistry of Education and Science) and
- Faculty of Technical Science, Novi Sad

7.1.7 Implementer

Faculty of Technical Science, Novi Sad

7.2.8 Partner

Faculty of Technical Science, Novi Sad

7.2.9 Budget/Funding

The Competition for Best Technology Innovation is funded by the ministry in charge of S&T (Ministry of Education and Science).

7.2.10 Impacts/Results

- So far, 44 enterprises have been established. A Report on newly established enterprises has been submitted to MoSTD. But one of the expected results of this project is to raise awareness in the research sector on the one hand and in the business sector on the other hand. It can be said that this result has been achieved to a small percentage (percentage of those that were available, or those who participated in the competition). To change the awareness of both parties it will be necessary to include a wider range of factors and make a lot of effort.
- It is good that the research community is well aware of the competition, but unfortunately also not well prepared for personal involvement as well. This is an area for improvement of activities from the side of the MoSTD as financer of the research community, proposing conditions for involvement of the researchers in the competition with results realised under R&D projects financed by the MoSTD.

7.2.11 Evaluation results: Success factors, bottlenecks

The project Competition for Best Technology Innovation is one of the most attractive approaches of the government to promote innovation.
A drawback of this competition is that the only access to the contest is online; competitors must be very well IT educated to participate in the contest. Also, the whole competition is conducted in Serbian, which could be a bottleneck for the promotion of innovation, as well as the whole competition, abroad and at the regional level. One of the recommendations could be that at least some parts of the contest should be conducted in English. For example, the finalists should give presentations of their innovations in English, and also the website of the contest should be translated into English.
During the competition phase, and specifically the presentation of innovations, the awarding committee consists of competent researchers and of business people contributing additional expertise in the final stage of the competition. With additional technical and commercial competence, the inventors and innovators are brought closer to the market with their new ideas and pilot products.
The competition and specifically the award event might need more targeted promotion, such as the final event being broadcast on TV programmes at attractive hours. The award event should be held with representatives of the business society. At one point of the competition phase, measures or events might be organised to enable a closer contact between innovators and inventors and potential investors or users/buyers of inventions. A special presentation to this group of investors is recommended.

7.2.12 Sustainability

The main obstacle for a sustainable continuation of the Competition for the Best Technology Innovation in Serbia is the status of the competition within the science ministries' annual programme of activities and budgeting. The recommendation is to define an appropriate managerial as well as financial scheme, which could allow sustainability and continuation together with adequate monitoring and assessment of the effectiveness and performance of the competition.

7.2.13 Transferability

The Faculty of Technical Science, Novi Sad is able to train and implement the organisation as well as practical aspects to interested parties in region.

7.2.14 Why select scheme as good practice?

The project Competition for the Best Technology Innovation is one of the most attractive approaches by the government to the promotion of innovation. The established enterprises and the provided help to entrepreneurs make obvious the positive ex-post evaluation. This positive evaluation is recommendation for itself.

7.1.15 Contact

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SERBIA

7.3 GRANT SCHEME – PROJECT FOR SUPPORTING THE DEVELOPMENT OF COMPETITIVENESS OF SMES AND INNOVATION

7.3.1 Regional framework in which the instrument is implemented

The National Agency for Regional Development (NARD) is a key player in the design and implementation of national policies for sustainable regional development in Serbia. This role is assumed by proposing and implementing support measures and development projects as well as supporting the development of partnerships. The National Agency is in charge of preparation, implementation, and evaluation of development plans, projects for improving infrastructure, development of entrepreneurship and business organisations, accreditation and coordination of regional agencies, and international and interregional cooperation. Its objectives are to achieve economic growth, employment, development of modern infrastructure, and building and strengthening partnerships for the sake of balanced regional development.

The National Agency for Regional Development (NARD) is the first institution that has its headquarters in the capital. The NARD carries out its activities and programmes through three courses of action: the management of infrastructure projects, the support of the development of enterprises and entrepreneurship, and participation in drafting legal documents and development plans as well as building the institutional infrastructure for implementation of the regional development policy.

The first line of action is the policy of regional development. NARD participates in the process of policy planning, preparation of bylaws, programming and development plans and their implementation. In the process of establishing and strengthening institutional infrastructure, NARD is responsible for the accreditation process, support and coordination of regional development agencies, and for the evaluation of their work. By carrying out surveys and analyses, NARD, in cooperation with partners at the regional level, identifies needs and strengths of the region and proposes measures and support mechanisms.

In addition to supporting the regions to define their competitive advantages and create a recognisable brand, the role of NARD is to encourage inter-municipal cooperation. The cooperation among regions in Serbia, as well as cross-border, interregional, trans-regional and international cooperation through the implementation of donor projects (EU programs and bilateral donors) are also among the key activities of the Agency. By providing different training modules, training, and mentoring activities, NARD is one of the important actors in the field of informal education for different target groups (potential entrepreneurs, SMEs, local government, institutions).

The second line of action is to support the development of companies, especially small and medium-sized enterprises, and entrepreneurship, a sector which is one of the most important pillars of regional development. This segment is based on the activities of non-financial programs and financial support to SMEs, to help potential entrepreneurs start their own business, promoting a knowledge-based economy through special programmes to support innovation and competitiveness, support the economic development of tailor-made environments, the improvement of business infrastructure (business incubators, industrial zones), cluster development, and internationalization of Serbian small and medium enterprises.

The key areas of activity are the activities aimed at analysing the needs of the region, the initiation, prioritisation, and selection of infrastructure projects of significance and impact on regional development. NARD participates in the preparation of regional development strategies and of regional development funding programmes, in the monitoring and enforcement measures, and in the implementation of development projects to improve infrastructure.

7.3.2 Description

The objective of the programme is to support the development of investment behavior of SMEs toward innovation, targeted to increase the competitiveness of SMEs through innovations. Innovation activities of the applicants could be improvement of organisational structure of the company, marketing innovations, innovations in the area of ICT, development of new or improved existing products, services, development, and testing of the prototype, and new design of the product and packaging. The delivery method of the programme is granted. Applicants for the programme can be small- and medium-sized enterprises (SMEs).

7.3.3 Level (Macro-, Meso- or Microlevel)

Macrolevel, Mesolevel, Microlevel

7.3.4 Main goals

Overall goal: Develop a culture of innovation within SMEs to improve competitiveness

Specific goals:

- Improvements of existing and development of new technological processes, products, and services
- Support technological and non-technological innovations in SMEs
- Improve competitiveness of SMEs through innovations; Develop the culture of investing in innovation among the entrepreneurs; Establish links between the SMEs and R&D institutions and centres of knowledge; Increase the number of the SMEs that invest in innovation
- An additional aim was to raise the income based on export activities

7.3.5 Target groups

Competitive and innovative SMEs

7.3.6 Initiator

Ministry of Economy and Regional Development and National Agency for Regional development

7.3.7 Implementer

National Agency for Regional Development

7.3.8 Partner

National Agency for Regional Development

7.3.9 Budget/Funding

The grant awarded under this programme will cover up to 50%, up to a maximum of RSD1.5m (€10,500) of the total approved project cost. The remaining 50% of a total approved project cost is to be secured by the applicant from other private sources, independently from public sources and donations.
Total available budget from public funds is RSD60m (€0.6m) in 2011.

7.3.10 Impacts/Results

Preliminary results of the evaluation of this programme showed that the aim of developing a culture of innovation was achieved through this Grant Scheme. This is documented, for instance, by the fact that, within the new NARD Call for Proposals, the greatest number of companies applied in relation to the launching of quality standards. This goal was very important for NARD as they specifically targeted the enhancing of standards and standardization as a response to the required adjustments in this field within the Serbian SME sector due to EU regulations.
The percentage of small companies that launched the standards before the grant scheme was 20%, while after the grant scheme, it rose by some 3-4%.

7.3.11 Evaluation results: Success factors, bottlenecks

The evaluation showed that the overall and specific goals of both programmes managed by NARD under the aspect of enhancing innovation in enterprises are achieved.
The schemes reached their overall objective as enterprises participated in the schemes to become more competitive leading to a better positioning in the market. As the main benefit participation improved the company's in-house innovation culture and created/enhanced their innovation partnerships. Companies tend to pursue "ready to market" innovations rather than buying of licenses and other intellectual property rights.
Recent evaluation of this scheme showed that 90% of the respondents stated that this grant scheme met their expectations, so it can be quite confidently concluded that the improvements of existing and the development of new technological processes, products, and services were achieved.
The problem was that only a small percentage of SMEs looked for international cooperation, which indicates that the international markets' programme targets were not achieved to the anticipated extent.
A major weakness in the schemes was seen by half of the companies in the inability to obtain a wider range and greater number of innovation activities. In this respect, the idea to support innovation projects encompassing several innovation activities could be a good starting point for future grant schemes.
It is recommended to establish and make available a centralised database that would identify ready-to-cooperate-enterprises and to establish future priorities in supporting companies from public funds.
Also there was no satisfying cooperation with R&D institutions. So it could be recommended to create a publicly accessible central database of innovation partners, especially of the relevant R&D institutions, that would be eligible for cooperation with SMEs.
In the process of evaluation, NARD noticed that for those companies which received a grant for launching quality standards, it should become obligatory to engage an international certification body. That's because only certificates issued by the international certified organisations are acknowledged in the EU.
Lessons learned from the case:

- Future Grants Schemes should be followed by a robust monitoring, evaluation, and impact assessment Monitoring and Evaluation (M&E) system;
- The main limits of the grant schemes are the limited total budget and lack of certified consultants;
- The first weakness notified was that no indicators to monitor the achieved results had been set up;

The evaluation methodology of project proposals should be improved.

7.3.12 Sustainability

This programme is a regular yearly activity of NARD. Therefore, financing is secured through the budget line addressed to this programme. Positive evaluation of this grant scheme is an additional fact which supports the sustainability of the scheme.

7.3.13 Transferability

This scheme could be easily transferred through cooperation between programme administrators and institutions in charge of implementation of such a scheme.

7.3.14 Why select scheme as good practice?

Positive evaluation that has shown that the grant scheme has achieved its goals is a reason to select it as a good practice example.

7.3.15 Contact

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7.4 VOJVODINA ICT CLUSTER

7.4.1 Regional framework in which the instrument is implemented

The Vojvodina ICT Cluster (VOICT) has been initiated in 2009, when several IT companies from Novi Sad expressed their interest in creating a business association in this sector. The initial meeting of some 30 companies took place in September 2009, when the Initiative Board was formed, which led to the formal establishment of the association in March 2010, by 17 companies. From the onset, VOICT was supported by several institutions, which are also honorary members from the very beginning: Vojvodina Investment Promotion – VIP, Faculty of Technical Sciences, Novi Sad, Regional Development Agency Alma Mons, and the Center for Competitiveness and Cluster Development.

During 2010 and 2011, another 11 companies joined as regular members, as well as two more institutions as honorary members supporting the work of the association. Establishment of the cluster fits into the goals of the development strategies at regional and national levels in Serbia.

7.4.2 Description

The Vojvodina ICT Cluster (VOICT) provides a single point of contact with the best ICT companies in Serbia. The cluster gathers 28 companies from the sector with a total workforce of 1,500 experienced IT professionals. The association enjoys strong support in the community, with six institutions from the areas of education, regional development, and public services being honorary members. Founded through a bottom-up initiative in 2010, this cluster is the strongest in its field in Serbia, with member companies who have numerous references among globally recognisable clients.

The VOICT offers near shoring, outsourcing, and Joint Venture opportunities with highly professional, reliable, and experienced partners. The Vojvodina ICT Cluster is a recognized partner in the development and application of new ICT products and services with high profit potential and an important partner in the development of individuals, companies and regional businesses. The mission of the Vojvodina ICT Cluster includes coordination of its own and its partners' efforts toward a strong positive influence on social and business environment. To the members, the cluster serves as a platform for cooperation and provides a portfolio of services, such as building capacities and competitiveness of its members through training and education at the Cluster Academy, building links with the education system, creation of new business opportunities, access to new markets, lobbying activities etc. The cluster also plays an important role in building tighter bonds in the triple helix Business – Education – Government.

7.4.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also on meso and microlevel)

7.4.4 Main goals

- Strengthening and positioning of the association as the relevant institution in the Serbian ICT industry
- Securing a portfolio of services to its members and partners, including lobbying, EU funds allocation and generating new business opportunities
- Building stronger links between R&D and the market

7.4.5 Target groups

Existing and new high-tech companies

7.4.6 Initiator

Private companies from the ICT sector in Novi Sad, Serbia

7.4.7 Implementer

The Vojvodina ICT Cluster business association, Serbia

7.4.8 Partner

- Faculty of Technical Sciences, Novi Sad
- Faculty of Economy, Subotica
- Center for Competitiveness and Cluster Development of the Faculty of Technical Sciences, Novi Sad
- Regional Agency for Development of Small and Medium Enterprises Alma, Novi Sad
- Business Incubator Novi Sad
- Vojvodina Investment Promotion – VIP

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7.4.9 Budget/Funding

VOICT is funded through membership fees, provincial government grants, and via participation in projects – both national and EU.

7.4.10 Impacts/Results

Until end of 2011:

- Number of members has increased from 17 to 28 (honorary members from 3 to 6)
- Established working relations with:
- governmental institutions at provincial and national levels
- clusters from other sectors in Serbia
- ICT clusters and associations from Hungary, Finland, Germany, Croatia
- Became a member of Pan European ICT & eBusiness Network for SMEs
- Organised series of round tables as a part of lobbying activities
- Organised one international conference with b2b
- Organised a series of events aimed at rasing interest in IT professions with the younger population
- Led two projects and took part in one project at national level, as well as being partner in two EU-funded projects
- Organised a series of trainings for cluster members on EU funding, SEO practice, and Scrum methodology
- Co-organised b2b event for companies from ICT and other sectors in Serbia

7.4.11 Evaluation results: Success factors, bottlenecks

From its origin, VOICT attracted enough attention among the companies in the domestic ICT sector to boost the number of companies significantly. It also managed to shed more light and induce more interest in clustering in Serbia in general. More future results regarding benefits for members may further broaden the membership base.
There are two key success factors defining the work of the association so far. One is the bottom-up principle embedded in the organisation, providing strong participation of members. The other is the decision to engage a full-time professional cluster manager to run operations.
Today, this cluster is on the verge to becoming a strong factor for further development of ICT and other sectors in Vojvodina and Serbia. The main obstacles may be a lack of funding to finance various activities initiated so far. Establishment of the Project Office within the cluster may provide a part of the solution for this situation. The Project Office will manage all activities tied to projects at national and EU levels – from screening of calls and application writing to project management and reporting. There is a good chance that the Project Office, if successful, will provide additional funding for other activities of the cluster through the success-fee scheme and making its services available outside of the cluster.

7.4.12 Sustainability

The main threat to sustainability of the Vojvodina ICT Cluster is inadequate funding. VOICT is already positioning itself to address this issue, with good chances of success.
Other factors of sustainability include the ability of the cluster to attract new members and deliver services that will attract them. The services portfolio is being updated constantly.

7.4.13 Transferability

Despite some limitations, VOICT is the strongest cluster in the area of ICT today in Serbia, and can be viewed/used as a model for the establishment of clusters in Serbia.

7.4.14 Why select scheme as good practice?

The Vojvodina ICT Cluster establishment and its work is in touch with realities of the business and social environment it functions in. It draws its strength from the basic qualities any similar organisation should possess.

7.4.15 Contact

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Co-ordination of Research Policies with the Western Balkan Countries

Good practice examples of innovation policy approaches and instruments in the Western Balkans

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SEVENTH FRAMEWORK PROGRAMME