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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 EU Member States and the Western Balkans

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Executive Summary

As part of WBC-INCO.NETs Work Package 8 on Innovation support, the underlying task of this report is to collect good practice examples of innovation activities that can be adapted to the region of the Western Balkan countries or to some individual countries of the region.

This deliverable includes a collection of good practice examples of programmes, instruments and measures aiming at supporting innovation activities. The examples are presented in two parts: the first part (Chapter 3) gives good practices from the EU Member States (especially The Netherlands, Belgium, Germany, Sweden) and the second part (Chapter 4) from the Western Balkan countries.

Further on, some of them will be selected, discussed in more detail and used as a basis to develop adaptation schemes for the implementation in the Western Balkan countries.

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1 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 (under UNSCR1244), Montenegro, and Serbia. One of the project aims is to support innovation initiatives in the region by collecting, discussing and exchanging information on good practices in innovation policies and to provide the basis for a possible implementation of some of these examples in the target region.

To this aim, 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;
- Identify future research market needs and to analyse the needs in innovation policy and innovation support;
- 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;
- Identify policy measures to improve the framework conditions for innovation and then to define joint actions;
- 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);
- 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).

PT-DLR and BMBF supported by its partners MPI and UNU-MERIT are responsible for the task T8.2 "Fostering innovation and adapting good practices”. This includes the collection of good practice examples in the EU Member States (PT-DLR/BMBF and UNU-MERIT) and in the Western Balkan countries (MPI). 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.

It has to be stated that not all of the examples have undergone an evaluation: some of the examples have been evalutated (e.g.the PIP programme from the Netherlands is monitored and evaluated by the Dutch Ministry of Economic Affairs), whereas of others no evaluation has taken place yet. This can be due to the recent start of a measure or to the fact that evaluation is foreseen.

2 Method

According to the innovation market and research needs identified in the frame of two surveys done in Task T8.1 ("Stocktaking")[1] as well as according to the results obtained during the First Innovation Dialogue Forum held in Becici/Montenegro on November 8 and 9, 2010[2], examples of good practice in the EU Member States and in the Western Balkan countries have been collected. These examples are listed in Table 1 (p.10), without this list being exhaustive. The examples were mainly provided by the project partners and innovation experts from the wbc-inco.net partner countries.

To draw a complete picture it should be mentioned that other initiatives are currently also dealing with the topic of innovation good practice examples in the Western Balkans, such as

- the OECD Regional Competitiveness Initiative (RCI) for the Western Balkans, whose "Innovation" pillar foresees mechanisms to facilitate the adoption of existing process and product technology, the capacity to implement innovation-enhancing policies based on OECD and international best practices, and a closer relationship between university research institutes and business sector;
- Innovation policy learning from Norway in the Western Balkans (WBinNO) aiming at helping policy makers in the Western Balkan countries to develop the Innovation policy system.

With these initiatives, contact is established and exchange of information and experience takes place.

The detailed description of the good practice examples using a standard template are compiled in chapter 3 (for the EU Member States) and chapter 4 (Western Balkan countries).

This report encompassing a collection of good practice examples will be the basis for a Workshop ("review meeting") foreseen in February 2012 in Albania, where some of the examples will be presented in more detail. The participants of the review meeting (contact persons for the presented good practice examples, representatives of the Innovation Group of Experts, innovation stakeholders, project partners mainly from the target region) will discuss the examples in view of their possible adaptation to the situation in some or all Western Balkan countries. During this meeting, a selection should be made in order to concentrate on some good practice examples which are to be pursued further for the development of adaptation schemes and the implementation in the Western Balkan countries.

In the follow-up period of the first review meeting, adaptation schemes for the few selected good practice examples will be developed. Those will be presented and

[1] Deliverables D 8.48: "Report on mapping of the WBC innovation system/Stocktaking" and updating and D 8.49: "Results of the survey on market and research innovation needs "

[2] More information: http://www.wbc-inco.net/object/calendar/94692.html

discussed together with the relevant stakeholders and experts from the region in a second review meeting in autumn 2012 in the FYR of Macedonia in view of their implementation in the Western Balkans.

Table 1: Overview on the good practice examples matched to the needs identified

Market/Research Need identified in the WBC	Number in text	Good practice example	Country
		From EU Member States	
Regional voucher scheme (companies to submit projects to universities)	3.1	Research Voucher Scheme	Netherlands
	3.21	Voucher scheme for science-business cooperation	Bulgaria
Network of regional innovation and technology auditors, carry out regional SME Innovation Audits	3.2	Strategic Innovation	Netherlands, Belgium, Germany
Develop the regional market for innovation and research	3.3	Integrated Destination Management System	Germany - Bulgaria
Regional venture capital fund & incubation services	3.4	Soft landing Platform Services	Germany - Croatia
	3.5	VenturelabTwente	Netherlands
Regional training programme for technical skills, entrepreneurship etc.	3.6	KOpEE	Germany
	3.15	Genomnanotech Regional Knowledge Center	Hungary
Large–scale technology programme which should involve all innovation stakeholders at the national level for modernisation (structure of the national economies is dominated by the low-tech sector)	3.7	Dutch Polymer Institute (and Polymer Innovation Programme)	Netherlands
Harmonise and open-up governments procurement markets	3.8	Small business Innovation Research (SBIR)	Netherlands

Regional financing programme for innovation activities in companies	3.9	Energy Subsidy Scheme	Netherlands
Programmes for science-industry cooperation should be adapted to the needs of the SMEs (vouchers, regional awards, regional training centres, various mobility programmes among countries and sectors, apprenticeship, etc.)	3.10	VINNVÄXT	Sweden
Foster wisely the programmes for research commercialisation and establishment of intermediaries (science parks or TTCs) so as not to create a false impression of progress and modernisation	3.11	Knowledge Management Centre (KMC)	Hungary
	3.12	Regional University Knowledge Centre for Vehicle Industry/Széchenyi István University, Győr	Hungary
Regional training programmes on innovation management	3.13	Semmelweis International Bio-Entrepreneurship Programme (SIBE)	Hungary
Strategic visions of development of NIS (analytical studies based on technology foresight exercise or assessments)	3.14	Future for Moldova	Germany / Moldova
Regional Innovation Coaching Scheme	3.16	Innovation Officer	Netherlands
Greater understanding by researchers of the needs of business companies and industry	3.17	Kplus/COMET	Austria
Network of clusters in selected sectors	3.18	Support to accredited innovation clusters	Hungary
Programmes for large regional infrastructure projects	3.19	Regional University Knowledge Center for Environmental - and Nanotechnology	Hungary
	3.20	Szeged Neurobiological Knowledge Centre (SNKC)	Hungary

		From WBC	
Programmes for large regional infrastructure projects	4.1	BIZ Incubator	Serbia
	4.8	Techno Park Zagreb	Croatia
	4.9	Techno Park Varaždin	Croatia
	4.10	BIOS Incubator Osijek	Croatia
	4.11	Innovation and Entrepreneurship Centre (IEC) Zenica	Bosnia and Herzegovina
	4.12	Innovation Centre Banja Luka (ICBL)	Bosnia and Herzegovina
	4.13	University Entrepreneurship Centre (UPC)	Bosnia and Herzegovina
	4.14	BIT Centre Tuzla	Bosnia and Herzegovina
	4.18	Incubator Inventivnost	Montenegro
	4.19	R&D Service Centre	Montenegro
	4.20	ICK	Kosovo under UNSCR 1244
	4.21	NCDIEL	FYR of Macedonia
	4.22	YES Foundation	FYR of Macedonia

	4.23	BSC Bitola	FYR of Macedonia
	4.24	MIR Skopje	FYR of Macedonia
Regional „Best technological innovation competition“	4.2	Competition for Best Technology Innovation	Serbia
Harmonise and open-up governments procurement markets	4.3	Grant Scheme Innovation Projects	Serbia
	4.5	RAZUM Programme	Croatia
	4.6	Proof of Concept Programme	Croatia
	4.7	TEHCRO Programme	Croatia
	4.16	Olive saplings production	Albania
	4.17	Support on Sustainable Agriculture in Albania (SASA Project)	Albania
Network of clusters in selected sectors	4.4	Vojvodina ICT Cluster	Serbia
Regional research infrastructure roadmap in collaboration with industry	4.15	Research laboratory for the production of *Pleurotus* mycelium	Albania

3 Good Practice examples in the EU Member States

3.1 Research Voucher Scheme (Netherlands)

3.1.1 Regional framework in which the instrument is implemented

The Province of Limburg in the Netherlands has an extensive infrastructure of intermediary organisations supporting knowledge transfer to private businesses. However, like in many other European regions, the region experienced difficulties in involving small and medium-sized enterprises in its innovation support system. Bigger companies often have known how to track innovation, but this exercise is too complex for an SME, as they generally lack the necessary manpower and resources.

3.1.2 Description

The Research Vouchers pilot project was carried out under the umbrella of the Regional Technology Plan (RTP) of Limburg. Question was: how to solve the problem of knowledge transfer between knowledge providers and SME's, a problem that is relevant all over Europe and also outside Europe. The challenge was to design a good pilot project.

The pilot-project was to introduce a system of research vouchers that would allow SMEs to make use of DSM Research's expertise and problem-solving abilities. DSM is a multinational dealing with chemicals and advanced materials in the Province of Limburg, the Netherlands. Meanwhile, a limited number of research vouchers were supplied to companies in the sample group which allowed them to have three days of advice from DSM Research free of charge. The voucher system developed in this project was experimental. After a random sample was selected from the target group, 20 companies were sent vouchers to make use of DSM Research's expertise, which covers environment and safety; advanced analyses; polymer chemistry; plastics; chemicals; and process technology, for a three-day period. To encourage the companies to use the vouchers, and to declare the rights and obligations of the parties involved, a set of rules was drawn up and printed on the back of each research voucher.

Specific problems of the SMEs were determined by the companies themselves or by Limburg Development Company (LIOF), then the Steering Committee consisting of staff from DSM Research, LIOF and Province of Limburg evaluated the determined problems and appointed relevant DSM experts to the companies. Following, DSM experts prepared draft strategies for the participant SMEs. If the experiment turned out to be successful, a follow-up project would be planned involving more knowledge providers. The implementation of these follow up projects were monitored by LIOF.

Implementation from February 1996 until December 1999.

3.1.3 Level (Macro-, Meso- or Microlevel)

Microlevel

3.1.4 Main goals

- increase the level of knowledge and improving the competitiveness of small and medium-sized enterprises by creating and developing a “knowledge market” in the region, which would allow SMEs to call on external sources to supply the know-how they lack;
- provide SMEs with access to external sources of expertise
- convince SMEs that much of the knowledge and expertise that they require has already been developed by the so-called knowledge institutions and large companies

3.1.5 Target group

SMEs

3.1.6 Initiator

The Province of Limburg

3.1.7 Implementer

Limburg Development Company LIOF, DSM Research BV and the Province of Limburg

3.1.8 Partner

The initiator, the 2 other implementing partners and for the pilot stage 20 SMEs.

Later it was upgraded with more knowledge providers, SMEs and intermediary organisations.

3.1.9 Budget/Funding

The voucher scheme was initiated within the frame of the RTP, earlier mentioned under 2; “description”. RTP was a European Pilot programme as a basis for the later RITTS and RIS programmes in Europe until 2009. RTP, Regional Innovation and Technology Transfer Strategies and Infrastructures (RITTS) and Regional Innovation Strategies (RIS), are partly funded by the European Commission. So the European Commission funded the strategy to develop a programme like the Voucher scheme.

The Voucher scheme as such was initiated by the Province of Limburg and implemented together with the Limburg Development Company LIOF and the Research department of the multinational DSM (Dutch State Mines).

These 3 partners financed the first Voucher pilot (€ 150.000). This was the start of the “Voucher movement“ in the Netherlands and later in the rest of Europe.

3.1.10 Impacts/results

To conclude the project, an evaluation research was conducted and a final report was written. The intention was also to find out whether, and to what extent, a research voucher would be a suitable instrument to achieve the main aims. The evaluation therefore clarified the considerations/motives that played a role in convincing SMEs to purchase external knowledge to solve technological problems,

and to what extent research vouchers would be a suitable tool to encourage them to do so in a consistent manner.

3.1.11 Evaluation results: Success factors, bottlenecks

The results of the evaluation all in all showed that the project was generally successful. Although interest in the vouchers was initially mild, the participating SMEs were satisfied when the implementation process started and proceeded smoothly. This means that beyond achieving good research results, it is equally important to approach and help the participants in the proper manner. The way in which DSM approached the companies was appreciated very much. The greatest progress was therefore made in this particular area, offering a high level of know-how with a customer-friendly, attentive attitude.

Nevertheless, the results were disappointing in terms of making companies aware of the range of different fields in which DSM can provide expertise. The evaluation demonstrated that not all of the participants were aware of the relevant expertise that DSM can offer to SMEs. On the other hand, the companies quickly benefited from redeeming the voucher. In most instances the benefits were improvements rather than earth-shattering innovations. But it was confirmed that the voucher was a good way of awakening the enthusiasm of SMEs for innovation and for using external sources of know-how. All things considered, it can be said that the voucher project has been a very effective instrument in Limburg.

3.1.12 Sustainability

The pilot described was carried out more than 12 years ago. The pilot was so successful that the region never stopped making new voucher schemes and implemented them. Huge budgets in Limburg, the Netherlands and the rest of Europe were spent since the early start. For instance in the Netherlands more than 160 mio. € are spend on Vouchers until now.

3.1.13 Transferability

Many projects carried out in European regions are so specific to that region that it is almost impossible to copy it to another region. The voucher scheme in its original setting was designed to connect regional know how (DSM Research) and the demand of SMEs in the region. More than 50 European regions copied the voucher-scheme initiative during mainly the last 6-7 years. They all adapted the scheme to their regional demand and supply situation and also to their financial position of providing support.

So there is proof enough that the scheme is successful and easily transferable

3.1.14 Why select scheme as good practice?

The voucher scheme is one of the relatively few examples in Europe of a good practice of knowledge transfer between knowledge providers and SMEs. This is why so many member states and regions adapted the scheme. Every region can use it as a shell and fill it in according to their specific situation. Even if no appropriate Knowledge provider is available in the region it can be constructed with knowledge providers in other regions within the country or abroad. The European Commission rewarded the voucher scheme as one of the best schemes in Europe.

3.1.15 Contact

Jean Severijns, jmj.severijns@home.nl
Province of Limburg, http://www.limburg.nl

3.2 Strategic Innovation (Netherlands, Belgium, Germany)

3.2.1 Regional framework in which the instrument is implemented

Within the Euregion Meuse Rhine, the goal has been set to develop into a technological top region. In order to do so large scale change programs have been developed that allow large number of SMEs to participate in order to make steps forward to improve their innovation capacities. Amongst other initiatives, the project strategic innovation was approved because it is a generic instrument that facilitates management teams of SMEs to make strategic choices and implement the innovations that might be the consequence of the strategic options that have been chosen for.

3.2.2 Description

The project is an initiative of UNU-MERIT (Maastricht). The methodology Strategic Innovation has been developed while participating in an EU funded program (EdiSon) in which pilots had been performed in 15 Dutch SMEs. Because of the success in the 15 SMEs on the one hand and the policy choices that had been made in the Euregion Meuse Rhine on the other, UNU-MERIT developed a project proposal together with 3 other project partners in Flanders, Wallonia and Germany.

The methodology of Strategic Innovation is a 4 step intervention + the implementation phase in companies that is facilitated by carefully selected and trained consultants.

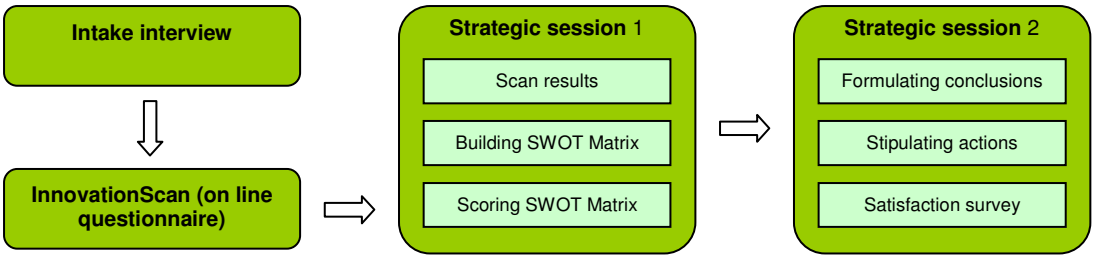

Figure 1: Methodology of Strategic Innovation

3.2.3 Level (Macro-, Meso- or Microlevel)

The approach facilitates management teams to (re-)develop their business strategy: put priorities, make choices and implement these choices. As such, a large number of individual SMEs are facilitated at micro level.

3.2.4 Main goals

A follow up of the initial Strategic Innovation program is still under execution:

- Strategic Innovation in the Euregion Meuse Rhine: 650 SMEs
- Strategic Innovation in Flanders: 250 SMEs
- Strategic Innovation in OP Zuid (NL): 280 SMEs (project ongoing)
- Strategic Innovation in Flanders: 125 SMEs (project ongoing)

3.2.5 Target group

SMEs according to the EU definition

3.2.6 Initiator

- Strategic Innovation in the Euregion Meuse Rhine: UNU-MERIT, Hasselt University, SPI+ and AGIT
- Strategic Innovation in Flanders: Hasselt University and UNU-MERIT
- Strategic Innovation in OP Zuid: UNU-MERIT
- Strategic Innovation in Flanders: Hasselt University but with staff members of UNU-MERIT on a secondment to Hasselt University.

3.2.7 Implementer

- Consulting firms that have been selected in an open European procurement procedure.
- Strategic Innovation in the Euregion Meuse Rhine: 17 consulting firms from the Netherlands, Belgium and Germany
- Strategic Innovation in Flanders: 13 consulting firms from Belgium and the Netherlands
- Strategic Innovation in OP Zuid: 13 consulting firms from the Netherlands
- Strategic Innovation in Flanders: 10 consulting firms from Belgium and the Netherlands

Some consulting firms have been active in all editions of the strategic innovation programs, but every time new consulting firms/persons were added and trained.

3.2.8 Partner

- Strategic Innovation in the Euregion Meuse Rhine: UNU-MERIT, Hasselt University, SPI+ and AGIT
- Strategic Innovation in Flanders: Hasselt University and UNU-MERIT
- Strategic Innovation in OP Zuid: UNU-MERIT
- Strategic Innovation in Flanders: Hasselt University but with staff members of UNU-MERIT on a secondment to Hasselt University.

3.2.9 Budget

- Strategic Innovation in the Euregion Meuse Rhine: 5.6 million euro
- Strategic Innovation in Flanders: 2.5 million euro
- Strategic Innovation in OP Zuid: 2.8 million euro

- Strategic Innovation in Flanders: 1.3 million euro

A total of 12.2 mio. €

3.2.10 Impacts/results

- Strategic Innovation in the Euregion Meuse Rhine: 655 SMEs involved
- Strategic Innovation in Flanders: 60 SMEs involved
- Strategic Innovation in OP Zuid: 280 SMEs involved
- Strategic Innovation in Flanders: 6 SMEs involved so far (project in start up phase)

3.2.11 Evaluation results, success factors, bottlenecks

Quite some information is available as regards the outcomes and results within the involved SMEs. Looking at the different programs from a meta-perspective we can conclude that the methodology still proves to be effective.

Key success factors however are:

- Training of the consultants
- Close follow up and quality management
- Involvement of local stakeholders such as chambers of commerce, employers' organizations, innovation relay centres etc.
- In times of crisis (cfr. Strategic innovation in Flanders) we found that SMEs are to a far lower extent willing to devote time and resources to strategy making. In those times SMEs go into a 'survival mode' and only worry about short time actions
- Involvement of triple helix partners and guarantee that for each of them there are win wins in participating in such projects
- Large scale approach and big programs: striving to involve large numbers of individual companies in a large project delivers some scale advantages in communication strategies etc
- These kind of programmes should be cheap for companies to participate in: after working with different percentages of financial contributions from the participating companies, it was noted that as prices went up, interest went down

3.2.12 Sustainability

The methodology has been fine-tuned in the different editions of the project and still proves to be effective.

The program as such, needs government funding: according to the experience stemming from the programme, the low threshold to participate in the program attracts and seduces companies to participate and experience the advantages of such an intervention. If the intervention would be 'sold' on a commercial basis (at full cost) only a small percentage of the SMEs would be willing to participate. Although business strategy is very important, this is a sort of item that companies easily think

they can manage themselves. It is only after having consumed the intervention that they see they should do this more often.

3.2.13 Transferability

During each of the strategic innovation programmes, the methodology has been trained to new consultants. In total more than 300 individual persons have been trained in the methodology. Not all consultants that were active in the first editions of the subsequent programs still work for us but following our information they still do use the methodology in their day to day consulting practice.

What counts for the transferability of the project approach as such, that is also possible but taking into account local conditions/financing structures and attitudes towards government funded consulting interventions. We have already explored transferring the methodology to different EU regions, but organizing the funding was always the main difficulty.

3.2.14 Why select scheme as good practice?

The method is effective; companies award the interventions with high scores in the satisfaction surveys. The methodology is made explicit: as such it is transferable to consultants in other regions. The project set up has also been made explicit (how to manage large scale programs, how to monitor etc.) As such the project approach is transferable to other regions. The philosophy of the program is that in order to help a region to make important steps forward, you have to involve large number of individual SMEs that each make their own improvements at micro level. The results of the project and the actions that have been implemented show that companies to make improvements in the way they manage their business and the way they operate in the market.

3.2.15 Contact

Raf Sluismans, UNU-MERIT (Maastricht University), Keizer Karelplein 19, 6211 EV Maastricht, The Netherlands; r.sluismans@maastrichtuniversity.nl

Raf Sluismans, KIZOK (Hasselt University), Universitaire Campus, Gebouw D, Agoralaan 1, 3590 Diepenbeek, Belgium; raf.sluismans@uhasselt.be; Phone: +32478304648

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3.3 Integrated Destination Management System (Germany/ Bulgaria, South East Region/Burgas)

3.3.1 Regional framework in which the instrument is implemented

Service innovation will have a strong impact on tourism, and also offer new job opportunities in regions and thus contribute to more inclusive growth in the EU. The recent Commission's Communication "Europe, the world's No 1 tourist destination – a new political framework for tourism in Europe" stressed that innovation needs to be boosted so that the tourism sector and its enterprises can adapt to new trends in consumer behavior and overcome fixed patterns in the sector.

Potentially, cultural and creative industries can play a major role in transforming tourism into a "knowledge-intensive" service sector. The Commission's recent Green Paper "Unlocking the potential of cultural and creative industries" highlights that the knowledge and talents that Europe's cultural and creative industries can offer to spur innovation, may help revitalising regional economies, including through sustainable tourism. Whereas the potential exists, it is still a challenge to fully valorise its potential in Europe's regions, e.g. through stimulating collaboration of tourism stakeholders in the regions towards setting up tourism clusters along the value generation chain.

Thus, the challenge is to bring together service innovation, culture and tourism in a mutually reinforcing manner, thus creating a "golden triangle" that will enhance the attractiveness of tourism destinations by better valorising cultural assets and offering new or improved services by high skilled jobs. The question is whether service innovation can be a driver for high skilled jobs also in rural areas. As one of several potential answers destination management services can be instrumental to develop customised services of high value, by building upon regional cultural specificities and using modern technologies.

The target region is the South East Region of Bulgaria with a high potential in tourism offering a great variety of cultural and touristic activities. However, there is a lack of

networking and coordination between the players and no defined focus on the target groups.

3.3.2 Description

Therefore, the implemented project “SMART TOURISM” in the frame of the EU INTERREG Programme aims at the development and the implementation of a Destination Management System (DMS). It targets in a top-down approach to exchange experiences about destination management activities, to identify the relevant players in the regions and to set up collaboration among them along the value generation chain within this sector. Crafting enterprises are also involved in the project. Furthermore, destination management activities are supported by electronic means (software) to generate additional information and to generate additional dynamics in the sector. Finally, the project contributes to the vision to build regional tourism clusters and setting up collaborations at international level. In the beginning of the year 2012, a pilot initiative will start and the developed software be put into place. The project will be running until the end of 2012.

Destination Management Systems are systems that permanently consolidate and distribute a comprehensive range of tourism products through a variety of channels and platforms, generally catering for a specific region, and supporting the activities of a destination management organisation within that region. DMS attempt to utilise sustainably a customer centric approach in order to manage and market the destination as a holistic entity, typically providing strong destination related information, real-time reservations, and destination management tools and paying particular attention to supporting small and independent tourism suppliers.

3.3.3 Level (Macro-, Meso- or Microlevel)

Mesolevel

3.3.4 Main goals

The initiation and implementation of a DMS significantly enhances the competitiveness of any tourism destination. It contributes to regional development, regional and economic growth and to the provision of new knowledge-intensive work spaces.

In addition, the following goals were set:

- Support specifically small and medium touristic enterprises, which represent the majority of companies in many destinations
- Integration of a holistic approach to the marketing of the destination using all methods and mediums
- Provision of database of up-to-date information to the end customer on different though various channels and on all available platforms
- Development of distribution channels of the touristic information of the region (web sites, visitor centres, kiosks, smart phones, hotel TV)

3.3.5 Target group

The target groups from a Business-to-Business point of view are all tourism stakeholders and all groups/entities that offer tourism services.

From a Business-to-Customer perspective all tourists in a region are targeted because they finally pay for the services.

3.3.6 Initiator

INI-Novation GmbH, Guerickeweg 5, 64291 Darmstadt, Germany

3.3.7 Implementer

Municipality Burgas (Bulgaria) together with tourism stakeholders of the South-East Region in Bulgaria

3.3.8 Partner

iTurus sum d.o.o. from Zagreb, Croatia (tourism IT solutions & consulting company)

3.3.9 Budget

104.080,00 Euro

3.3.10 Impacts/results

- Integrated service offers in the tourism sector
- First steps towards clustering tourism offers through innovative services
- Customer's loyalty and award program
- Destination (=region's) integrated marketing effort
- Development of the regional economy in the South East Region in Bulgaria

3.3.11 Evaluation results, success factors, bottlenecks

Bottleneck is to find the answer on the question who will be responsible for maintaining the systems (question of sustainability) and how to motivate more tourism stakeholders to participate in order to make the system sustainable and more specific for the customers.

3.3.12 Sustainability

Additional stakeholders can be added into the system at any time, which will contribute to organisational sustainability;

The more service offers the system can integrate in the future, the more specific the customer's profile can be developed and the more specific new service offers can be. This leads to a higher travel frequency into the region, and finally to financial sustainability.

Further actions can be taken in the region Burgas to integrate

- service offers,
- actors (networks) and
- accelerate measures (cluster).

3.3.13 Transferability

The Destination Management System can be transferred to other regions.

3.3.14 Why select scheme as good practice?

The project creates knowledge-intensive jobs and wealth, and ensures the alignment with the EU 2020 strategy.

3.3.15 Contact

Wolfgang Kniejski, INI-Novation GmbH, Guerickeweg 5, 64291 Darmstadt, Germany
kniejski@ini-novation.com

3.4 Establish International Co-Incubation Collaboration through Soft landing Platform Services (Germany/Croatia)

3.4.1 Regional framework in which the instrument is implemented

The project of establishing the Technology-Innovation Centre Međimurje (TIC) was initialized by the Regional Economic Development Agency (REDEA) to create preconditions for providing services of incubation and training, technology transfer and commercialisation of innovations to academic and SME sector in Međimurje and the region. The need for such services is affirmed by Letters of Intent signed by future service users and by the analysis of the regional economy.

3.4.2 Description

Since access to international sources of innovative technologies and the provision of international partnerships and co-incubation services to their local customers are key success factors for TIC's operations, it was decided to develop all related services as a sort of Soft landing Platform (providing support to enterprises to access export markets). Co-incubation includes a host-incubator providing services and knowledge to visiting companies from a sending incubator in another region. This activity shall provide the services permanently and sustainably to TIC customers.

The key partners in the project are the Međimurje County which provided premises for TIC activities, Međimurje Polytechnics in Čakovec which is the academic partner and INI-Novation GmbH as Technical Assistant, which has got expertise in design and management of similar structures. There is close cooperation with several European Technology Centres (see below).

The initiative started in October 2009; during the initial 3-year period TIC operates as a department within REDEA. REDEA's employees will work on the project with technical assistance provided. During the first year, TIC was established and since 2010, the Soft landing Platform is under development. After 3 years, when resources for independent operation will be set up, TIC will be established as a separate company owned by the key partners on the project and private industrial enterprises. During the entire implementation of the project investment is made into building up the resources of TIC. TIC is situated in 3 buildings in former military complex Nikola

Šubić Zrinski which is within 10-minute walk from the centre of Čakovec. It is a part of the Centre of Knowledge made of development institutions (REDEA and MENEA) and the Polytechnics. The TIC operates at the overall surface area of 2.600m.

Services provided by TIC include: incubation of innovative technology companies, trainings and services of technology transfer and commercialization of innovation. TIC works on positioning in the regional context and on raising the awareness of the need for technology development and methods for achieving it.

3.4.3 Level (Macro-, Meso- or Microlevel)

Mesolevel

3.4.4 Main goals

The initiation and implementation of an International Soft landing Platform and its related service offers targets increasing business development via international networking for incubated companies with high growth potential in global markets.

International networking is one of the most important factors for incubated companies with high growth potential in global markets. For those companies looking for early entry into international markets, chances of success will be increased if business support services can also be provided by incubators situated in target markets in other regions or other countries.

Companies with strong international networks achieve faster growth rates, reach their IPOs (initial public offering) quicker, are more innovative, generally receive higher valuations and demonstrate better ability to cope with periods of economic difficulty. The international network dynamic is of particular importance in sectors undergoing frequent technological change.

International co-incubation schemes that seek to help incubated enterprises gain access to export markets. The receiving or host incubator's knowledge, contacts, expertise and networking skills will make the market entry process for visiting companies in another region easier and faster.

3.4.5 Target group

The target customers for the services are local companies that want to open up to sell their products and services in international markets. Targeted are also foreign start-ups and SME that intend to enter the Croatian and wider Balkan market.

3.4.6 Initiator

INI-Novation GmbH, Guerickeweg 5, 64291 Darmstadt, Germany

3.4.7 Implementer

Technology Innovation Centre Međimurje/Regional Economic Development agency (REDEA), Čakovec, Croatia

3.4.8 Partner

- Incubators and technology transfer intermediaries form different European countries:

- TecMinho in Braga, Portugal
- UPTec of the University of Porto, Portugal,
- Miramon Technology and Science Park, San Sebastian, Spain
- BIC Berilan, San Sebastian, Spain
- University of Wuppertal and „Wuppertaler Innovationszentrum“ (WIZ), Germany

3.4.9 Budget

This is one of many initiatives which are funded out of a total budget for the establishment of services for the Technology Innovation Centre. The budget is around 500.000 € for three years.

3.4.10 Impacts/results

- “International readiness assessment” of companies asking for support, for the incubator/business advisor of origin to evaluate the effectiveness of the request (“validate” the company or Soft landing Services)
- Company profiles, to be prepared by client company of the “sending” incubator and sent to the “host’ incubator in order to prepare the visit;
- Service Level Agreement to detail the service and conditions between the hosting incubator and the visiting company.
- Fostering of international collaboration and international co-incubation

3.4.11 Evaluation results, success factors, bottlenecks

The added value of the Soft landing activity is the ability for partners and associated partners to send a client company to a “trusted friend” in another region who through his/her established business contacts, and personal relationships, can propose tailor-made business support packages to meet that visiting company’s needs.

Business support service packages offered to SMEs for Soft landing should be flexible, tailor made and focused on individual company’s needs. A high level of adaptation and diversification of the service has to be considered as the needs of visiting companies can be very different. This impacts the need for qualified personnel with international contacts delivering this kind of service.

Training on co-incubation also has to be provided, which requires additional qualified and experienced capacities.

3.4.12 Sustainability

The services offered and finally paid will lead to a revenue line, which contributes to the financial sustainability of an internationally oriented incubator.

3.4.13 Transferability

The Soft landing Platform Services can be transferred to other European cities, regions and countries.

3.4.14 Why select scheme as good practice?

The project creates knowledge-intensive jobs, regional development and wealth, and ensures the alignment with the EU 2020 strategy.

3.4.15 Contact

Wolfgang Kniejski, INI-Novation GmbH, Guerickeweg 5, 64291 Darmstadt, Germany
kniejski@ini-novation.com

3.5 VentureLab Twente (Netherlands)

3.5.1 Regional framework in which the instrument is implemented

VentureLab Twente is a rather new initiative as it was established in 2009, but the region of Twente has a long history of incubation support related to Twente University. Fast growing companies are important for a vital economy. Such companies are more innovative and more often introduce new processes, products, and services. They create sustainable, high-grade jobs and attract other business. They enforce higher levels of organisational learning among their networks. In short they have a major impact in a region.

VentureLab Twente forms a part of a regional initiative for Innovation: the Agenda of Twente. It is sponsored by the “Innovatieplatform Twente” (innovation platform Twente) the province of Overijssel, the “Regio Twente” (Twente Region) and the European Fund for Regional Development. Partners are: the University of Twente and Saxion University for Professional Education.

3.5.2 Description

Venturelab Twente supports business development for technology-based start-ups and is a business growth accelerator for well-established companies. Their one-year business development programme jump-starts and provides sustainable growth for young businesses, as well as long-standing companies, which aim to grow further and more rapidly.

The VentureLab concept is grounded on more than 25 years of experience in business development support, visualised in the value creation model. This model describes the critical factors required to do business successfully. It was developed by NIKOS, the University of Twente’s Expertise Centre for Technology-based Entrepreneurship. The key to launching a company on the market as effectively as possible is not only the idea, but also all the entrepreneurial competences that form the basis of a successful business operation. It takes many steps to move from idea (opportunity recognition) to business model (opportunity preparation), to running a fast growing, technology-based business (opportunity exploitation). These steps are impossible for one person to envisage, coordinate and take. According to this Venturelab concept, building a business, let alone a fast growing company, is teamwork.

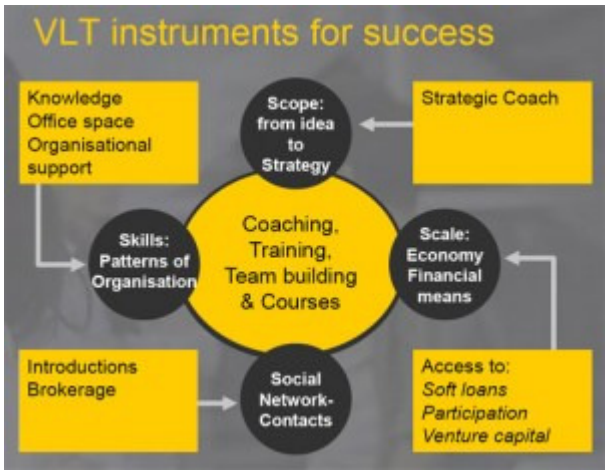

Figure 2: VentureLab Twente instruments for success

VentureLab Twente offers a range of services for start-ups and growth seeking companies. The business development programme gives access to weekly training sessions on diverse subjects, experts on diverse subjects, fifty hours of coaching and progress monitoring, and access to facilities such as meeting rooms, conference rooms or office space free of charge.

This business building also houses support organisations and a number of (start-up) companies. Shared facilities include a central reception, a canteen, a conference hall (seating 100) two meeting rooms and private parking facilities. VLT can offer 500 sq. m max. of office space to participants' companies. Also available for participants are our two conference rooms and three meeting rooms.

Because participants and their companies have extremely diverse backgrounds VentureLab offers a continuous supply- and demand-oriented training programme, which has no obligatory courses and is highly flexible and customisable. This design allows for differentiation in level of experience and phase of business development, enables participants to spend as much time on the course as they need, and makes it possible to attend the right training at the right time. Participants are responsible for their own learning process. Typical training includes four half-day workshops on issues such as: Strategy, Commercial Management, Finance, Technology Management, Organisation, and Personal and team skills.

The personal coach will help the participant decide which trainings to follow. Apart from the participant's expressed needs, this choice is based on the assessment of the participant's entrepreneurial competencies and the development phase of his/her company in terms of personal-, team- and business development. This assessment is translated into a personal development plan.

In 2009, the National Business Incubation Association (www.nbia.org) awarded the NBIA Soft Landings International Incubator designation to VentureLab Twente. Through its Soft Landings programme, NBIA recognises incubators that are especially capable of helping nondomestic companies enter the incubator's domestic market. VentureLab Twente joins a select group of 16 programmes from around the world that have earned the designation since NBIA began the programme in 2005.

3.5.3 Level (Macro-, Meso- or Microlevel)

Micro-level

3.5.4 Main Goals

VentureLab Twente was designed to particularly address business growth issues in the Twente region. In the coming four years they aim to support and train 350 participants. In 2020 this should lead to 200 new companies, 10% of which have over 100 employees. This should result in 3.000 direct and 9.000 indirect jobs.

3.5.5 Target group

VentureLab Twente is open to entrepreneurs and business developers from the Netherlands or abroad. Foreign trainers and experts are involved in the programme. The official language is English.

The fee for this one-year programme is 3,000 Euro for Small & Medium Sized companies that have been or will be established in the provinces Gelderland or Overijssel. All others pay the full fee of 30,000 Euro.

3.5.6 Initiator

NIKOS, the Dutch Institute for Knowledge Intensive Entrepreneurship at the University of Twente

3.5.7 Implementor

VentureLab

3.5.8 Partners

The University of Twente is an entrepreneurial research university. It was founded in 1961 and offers education and research in areas ranging from public policy studies and applied physics to biomedical technology.

Saxion is among the largest Universities of Applied Sciences in the Netherlands, offering a broad range of bachelor and master programmes. Their origin dates back to the early 1900s, when their predecessors were established. Nowadays Saxion University has become an important centre of expertise in the Twente region. Their student population reaches approximately 20,000.

The Saxion Kenniscentrum Innovatie en Ondernemerschap (SKIO) (“Knowledge Centre for Innovation and Entrepreneurship”) develops a large number of activities to promote an entrepreneurial attitude and stimulate entrepreneurship. The instruments SKIO deploys to this end include support programmes and additional facilities, education, advice, coaching, networking and research.

Kennispark (“Knowledge Park”) aims to further develop the Twente region into a knowledge-intensive region of international stature by promoting activity through the generation and transfer of knowledge. Kennispark invites initiatives that put science to work and focus on the link between science and industry.

NBIA – National Business Incubation Association is the VLT partner in soft landing

VLT also has a partnership with the Twente Innovation Platform (TIP). TIP was formed at the initiative of the province of Overijssel. It is represented by the regional

government, educational and research institutions and businesses. Innovation is a regional responsibility which cannot be left to individual businesses and institutions alone. As from 2005, TIP has been working on a long-term vision in the field of innovation; a vision in line with the qualities, the power and ambition of Twente as a region.

VentureLab Twente is co-funded by: the Regio Twente (Twente Region) and is part of the “Agenda van Twente”; the province of Overijssel; the province of Gelderland; the Go Foundation; and the European Fund for Regional Development.

3.5.9 Budget

A subsidy of 2.4 mio. € has been awarded to VentureLab Twente by the Ministry of Economic Affairs and the provinces of Overijssel and Gelderland within the EU-funded ‘GO Gebundelde Innovatiekracht’ programme. The Twente region and Innovation Platform Twente also contributed to VentureLab Twente to bring subsidies to 3.5 mio. €

3.5.10 Impact/results

In October 2011 the 5th group of VentureLab participants, received their alumni-pins and have their stories collected in “VentureLab Twente Entrepreneurs stories” (2011, volume 3).

3.5.11 Evaluation results, success factors, bottlenecks

An overall quantitative evaluation has not yet taken place due to the recent start of the scheme in 2009.

3.5.12 Sustainability

Unknown long term prospects.

3.5.13 Transferability

Many ideas and design elements of this example can be transferred or copied quite easily to other existing schemes.

3.5.14 Why select scheme as good practice?

Twente has a long reputation in incubation support for innovative companies and start-up programmes.

3.5.15 Contact

Jaap van Tilburg (Programme manager), VentureLab Twente, Nikos / University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands

3.5.16 References, information sources

http://www.venturelabtwente.com/

3.6 The "Koblenz Network for Open Entrepreneurship Engineering" (KOpEE, Germany/Rhineland-Palatinate, Koblenz)

3.6.1 Regional framework in which the instrument is implemented

The Koblenz Network for Open Entrepreneurship Engineering (KOpEE) is a cooperation of three academic and two research institutions (see 3.4.2) and it is an independent institution for the promotion of Scientific Entrepreneurship in academic and research institutions in the region of Koblenz-Middle Rhine, headed by the University of Koblenz-Landau.

3.6.2 Description

Within the EXIST III initiative (www.exist.de), the Koblenz Network for Open Entrepreneurship Engineering (KOpEE) project was established in November 2008 with a contract period of three years. KOpEE was based upon the collaboration between the University of Koblenz-Landau (project leader), the WHU - Otto Beisheim School of Management, and the University of Applied Sciences Koblenz (FH), bringing together their respective core competences: computer science, management and engineering. One focus of this network from the view of engineering was put on innovative materials technologies. This focus was represented by the two leading European research institutes for inorganic materials (glass/ceramics) in Höhr-Grenzhausen, and mineral and metal materials (precious stones/precious metals) in Idar-Oberstein. Though the project is limited on three years, one main focus is the sustainability of the developed and implemented processes and structures in order to foster scientific entrepreneurship.

3.6.3 Level (Macro-, Meso- or Microlevel)

KOpEE addresses the actors (students and professors) of the cooperation partners by matching their key competences for new ideas and products. (Microlevel)

Another goal of KOpEE is to establish a culture of Entrepreneurship all over the academic institutions of the three cooperation partners. (Macrolevel)

It addresses too the relevant institutions in the region (regional development agencies; chambers of commerce and handicrafts, etc.) for supporting the idea of Scientific Entrepreneurship. (Mesolevel)

3.6.4 Main goals

The main aims of the project KOpEE were to establish a lasting culture of scientific entrepreneurship as well as to strengthen real founding activities within the academic context. Additionally, the objective was to increase the number and competitiveness of technology-oriented and knowledge-based foundations from science in the greater region of Koblenz-Middle-Rhine. This involved actions based on systematic procedures and usage of supportive tools ("engineering paradigm"), and at the same time required full disclosure and equal participation in terms of development and design of foundation-oriented activities ("open paradigm"). Therefore, we used the notion of "open entrepreneurship engineering" in order to label the core philosophy which stands behind the KOpEE project.

3.6.5 Target group

The targeted groups are all actors of the five cooperating institutions (students, professors, research assistants, researchers). We target these actors with their core competencies, that means especially the actors of the university in computer science, the actors of the WHU with their business knowledge and the actors of the FH especially in engineering.

3.6.6 Initiator

The Initiator of the EXIST initiative (www.exist.de) is the Federal Ministry of Economics and Technology. You can find more information about the Federal Ministry of Economics and Technology at http://www.bmwi.de/.

The initiator to implement an EXIST-Project in the Koblenz-Middle-Rhine area was Prof. Dr. Harald von Kortzfleisch from the University of Koblenz-Landau (harald.von.kortzfleisch@uni-koblenz.de).

3.6.7 Implementer

University of Koblenz-Landau (project leader), Research Group for the Management of Information, Innovation, Entrepreneurship, and Organization Design (Mi2EO), headed by Prof. Dr. Harald von Kortzfleisch.

3.6.8 Partner

- WHU - Otto Beisheim School of Management
- University of Applied Sciences Koblenz, (FH/Fachhochschule Koblenz)
- Institute for inorganic materials (glass/ceramics) in Höhr-Grenzhausen (Forschungsinstitut für anorganische Werkstoffe Glas/Keramik GmbH, FGK)
- Institute for mineral and metal materials (precious stones/precious metals) in Idar-Oberstein (Forschungsinstitut für mineralische und metallische Werkstoffe - Edelsteine/Edelmetalle – GmbH, FEE)

3.6.9 Budget

The budget for KOpEE represented about 800.000 Euro in total, where from the University of Koblenz-Landau fundraised 100.000 Euro from companies and public institutions.

3.6.10 Impacts/results

With KOpEE, entrepreneurship has been successfully progressing at the University of Koblenz-Landau, the WHU - Otto Beisheim School of Management, and the University of Applied Sciences Koblenz: Since October 2008, we have supervised more than 40 foundations, including 5 with approved EXIST founding scholarships (in each case worth about 100.000 EUR), 2 recent applications that are still in progress and 1 approved EXIST-“Forschungstransfer” grants (worth about 380.000 EUR). At the moment, the University of Koblenz-Landau ranks 29 in the German ranking of foundations overall, and also 8 in terms of networking, which makes it the best-ranked university in Rhineland-Palatinate in this regard. Furthermore, the University of Koblenz-Landau entered into a strategic partnership with the bank “Investitions- und Strukturbank Rheinland-Pfalz (ISB) GmbH”.

3.6.11 Evaluation results, success factors, bottlenecks

To achieve the aims of KOpEE, several work packages were put together, which had been agreed upon by the three universities and will be described in the following.

3.6.11.1 Establishing a Culture of Scientific Entrepreneurship

For establishing a culture of scientific entrepreneurship, KOpEE has introduced different activities over the last three years:

- The highlight during the project period has been the “KOpEE Congress”, which took place once a year and informed all kinds of entrepreneurship-related stakeholders about the greater region Koblenz-Mittelrhein and, beyond that, the progress of the KOpEE project. It especially offered a forum for the discussion of specific scientific and entrepreneurship-related issues, as well as an exhibition of innovative start-ups supported by KOpEE.
- Another important highlight has been the “Trips into the World of Founders”, which also took place once a year: Together with a group of students and academic scientists, KOpEE for instance visited the Adlershof in Berlin and Sophia Antipolis in the South of France.

3.6.11.2 Idea Scouting

Finding innovative ideas suitable for starting a business is another focus in the KOpEE project:

- Once a year, the “Technological Entrepreneurial Thinking (TET)” workshop took place. Students and academic scientists could present their Ideas for a potential future business and work on it according to the entrepreneurial design thinking approach. The entrepreneurial design thinking approach turned out to be very effective and became the core element of KOpEE’s strategy of sustainability, in connection with the KOpEE Creativity Lab.
- The “Idea Contest of Rhineland-Palatinate“ was another instrument for systematically and pro-actively identifying innovative ideas with the potential to build up a successful business. The contest took place two times and will be established on a regular annual basis.

3.6.11.3 Matching

Matching people with different competences as entrepreneurial teams and matching founders with mentors or with investors was another distinguishing mark of KOpEE. The above mentioned TET workshop was one instrument to systematically match people in order to work on potential and innovative start-up ideas in diverse and complementary teams. Besides, KOpEE developed an automatic matching algorithm as part of a web 2.0-based internet platform.

3.6.11.4 Networking

A key factor for success was the broad regional network of KOpEE. The board of advisers already consisted of a wide variety of different companies, regional institutions, centers of technology and publicly funded organisations. The support of these and further organisations and institutions within the broader region of Koblenz and beyond showed the high transparency and openness of the project and allowed for intensive networking. In addition, the KOpEE project also developed its network

within the three collaborating institutions. Of special importance was the promoter concept, which was introduced in order to show a strong presence in all of the institutions' faculties.

3.6.12 Sustainability

KOpEEs creativity lab was a retreat for students, who were brooding over or preparing to realise an idea through new venture creation. KOpEE installed the creativity lab in 2008 and began granting access to aspiring founders in 2009. Students booked the lab for a few hours or a whole day and hosted workshops there. It was particularly important to locate the lab in close proximity of the university, but also to make sure that there were close contacts to already successful founders. Therefore, the lab was housed in the Technology Center of Koblenz (Technologiezentrum Koblenz – TZK), which is situated right next to the university. In addition, the trade-off between studying, researching and preparing for the foundation of an enterprise benefited from this physical closeness.

While the creativity lab gained popularity among students and researchers, KOpEE prepared to install a greater and long-term counterpart to the lab. In order to accomplish this task, the university provided the necessary resources. The school of entrepreneurial design thinking was founded in 2010 and began its first workshops and seminars in the same year.

In the first workshops, students from Koblenz as well as visiting student from all over the world created ideas and pursued the formation of new ventures. In the first seminars, doctoral students of Koblenz and other students followed and successfully completed an eight-day program. The school is going to expand its activities over the next years and plans to open them to more universities in Rhineland-Palatinate and the rest of Germany. Furthermore, partnerships with foreign universities will be an essential strategic task for the School of Entrepreneurial Design Thinking. You can find more information about the School of Entrepreneurial Design Thinking at http://www.ed-school.com/.

3.6.13 Easy to transfer?

The transferability of KOpEE is very high because the generic idea, approach and the single instruments of KOpEE are good examples for a successful cooperation between institutions in the area of Scientific Entrepreneurship and for supportive instruments to initiate foundations with regard to the mentioned target groups.

3.6.14 Why select scheme as good practice?

The success of the concept combining the "engineering paradigm" for scientific entrepreneurship and the "open paradigm" makes it a good practice.

3.6.15 Contact

University Professor/Diplom-Kaufmann Dr. rer. pol. Dr. habil. Harald F.O. von Kortzfleisch, University of Koblenz-Landau, Campus Koblenz, Institute for Management, Informatics Faculty, Research Group Mi2EO, Universitätsstr. 1 D-56070 Koblenz, Germany

Email: harald.von.kortzfleisch@uni-koblenz.de
Fon: +49 (0) 261 287 2866; Mobile: +49 (0) 177 55 33 22 1

Fax: +49 (0) 261 287 100 2523

URL of the Research Group: www.mi2eo.informatik.uni-koblenz.de
Website of the Project: www.kopee.de

3.7 Top Technological Institutes and Innovation Programmes: DPI (Dutch Polymer Institute) and the Polymer Innovation Programme (PIP, Netherlands)

3.7.1 Framework in which the instrument is implemented

DPI is one of the first four Technological Top Institutes (which are also often translated in English as: leading technology institutes). In the first years the institute was set up with a subsidy of the government, but recently the funding has been changed towards programme funding.

The rationale for the public involvement in the form of the Polymer Innovation Programme (PIP) is to support winners, creating focus and critical mass in technological fields that are strong and important for the Dutch economy. The polymer world in the Netherlands and Europe is facing a number of challenges. There is a growth in market demand in terms of both volume and performance. The range and quality of technological options driven by modern science and technology are rapidly increasing. And there is strong pressure from society for sustainability and new technological solutions. But, the challenges are too broad and scientifically too complex to be addressed by single parties. In addition, change and growth are needed fast, given the fierce international competition and rapid global developments. Since the polymer industry and polymer science are still very strong in Europe and in the Netherlands, there is thus an opportunity now for providing such new growth to the existing polymer industry and for helping new polymer-based businesses get off the ground. Because the Polymer world in the Netherlands as such is too small, the PIP programme and the DPI institute must be open to foreign participation.

Foreign participants to the DPI contribute to the PIP programme, but also benefit from it. In December 2007 the government allocated 49.55 million euros for executing the PIP in the next four years. Of this, 36 million euros is for research (track 2) and 13.55 million for new business and new companies, strengthening the valorisation from the research programme, community building (tracks 1 and 3) and the programme bureau. DPI and the government are now discussing a rolling finance model to ensure continuity of the programme.

3.7.2 Description

DPI was initially established for a four year period. An international committee evaluated DPI positively in 2001 and consequently the Dutch Government (the Ministry of Economic Affairs) will supply funds for a second period of six years (instead of the initially intended four years) up to 2008. The extra prolongation enabled DPI to expand in Europe, which is one of the original objectives. DPI is

funded by industry (25%), universities/TNO (25%) and the Ministry of Economic Affairs (50%).

The main technological areas for DPI and the PIP are:

- Polyolefins;
- Performance Polymers;
- Functional Polymer Systems;
- Coating Technology;
- High-Throughput Experimentation;
- Bio-Inspired Polymers;
- Large-Area Thin-Film Electronics.

Most of the 36 companies and the almost 32 knowledge institutes (research institutes and universities) have activities in Europe. This also includes European subsidiaries of non-European companies.

The research mainly involves pre-competitive research for which industry has a short to medium term commercial interest. The resulting Intellectual Property, when it is not used by any of the involved partners within a few years, is sold to third parties. Besides the above disciplines, or programme area's, there is also a section labled 'corporate research' which refers to experimental research for which companies have a long-term interest.

3.7.3 Level (Macro-, Meso- or Microlevel)

Meso-/micro-level

3.7.4 Main goals

The mission of DPI is to establish a leading technology institute in Europe in the area of polymer science and engineering that is characterised by a strong, multidisciplinary, 'chain-of-knowledge' approach.

3.7.5 Target group

Over the years DPI has broadened its partner base, with more and more companies and universities from across Europe participating in its programmes. DPI is a public-private partnership funded by industry, universities and government set up to perform exploratory research in the area of polymer materials. DPI operates at the interface of universities and industry, linking the scientific skills of university research groups to industrial need for innovation. DPI performs pre-competitive research projects to add value to the scientific community through scientific publications and to the industrial community through the creation of intellectual property.

3.7.6 Initiator

The Dutch Ministry of Economic Affairs

3.7.7 Implementer

The Dutch Ministry of Economic Affairs

3.7.8 Partner

The entire Dutch polymer producing and converting industry is involved in DPI, but there are many foreign participating companies. The participating industries (domestic and foreign) and founding fathers of DPI are: AKZO Nobel, Dow Chemical, DSM, General Electric Plastics, Basell, Océ, Philips, Shell and TNO. Meanwhile ATO, Analytik Jena AG, Avantium, Avery Denisson, Bayer, Borealis, Chemspeed, Degussa, ECN, FGK, Hysitron Inc., Kraton, Microdrop, NPC Iran, NTI Europe, Sabic, SEP and Teijin Twaron also became DPI partner. At the end of 2007 a total of 36 industrial partners were involved. In the beginning the involved foreign companies such as Dow Chemical and General Electric Plastics had subsidiaries in the Netherlands, but later also foreign based firms without subsidiaries in the Netherlands participated.

The main participating domestic and foreign knowledge institutes are TU Delft, TU Eindhoven, and the universities of Groningen, Wageningen, Amsterdam, Twente and Maastricht, DKI, the universities of Hamburg, Naples, London, Leeds, Athens, Stellenbosch and Paris. At the end of 2007 a total of 32 knowledge institutes (universities etc.) were involved.

3.7.9 Budget/Funding

The structure at the funding site did not change much over the years (see table 1), but at the expenditures side the participation of the foreign knowledge institutes has increased over the years, from 2% in 2003, to 22.8% in 2007.

Table 2: Summary of DPC sources of funding for 2004 and 2007, Income (x EUR million); Source: DPI annual reports

	2004		2007		2010	
Contributions from industrial partners	4.54	25.3 %	4.64	27%	4.31	17.4%
In-kind contributions from industrial partners					3.31	13.4%
Revenue Patents					0.06	0.2%
Contributions from knowledge institutes	4.48	24.9 %	3.83	22%	4.26	17.2%
Contributions from Ministry of Economic Affairs	8.95	49.8 %	8.95	51%	9.00	36.5%
Knowledge Workers Scheme					3.33	13.5%
Total income	18.0	100 %	17.4	100%	24.70	100 %

It is not clear what the net result of all the cross-border flows of contributions and expenditures are, and where most of the research is exactly done, but the knowledge institutes (both foreign and domestic) spend more from the budget on research than they contribute to the budget. This means that DPI and the PIP programme also function as an outsourcing mechanism, paying for research done by public funded knowledge institutes. Anyhow the 9 million euro subsidy funded by the Dutch government for the PIP programme is beneficial to all involved in the programme.

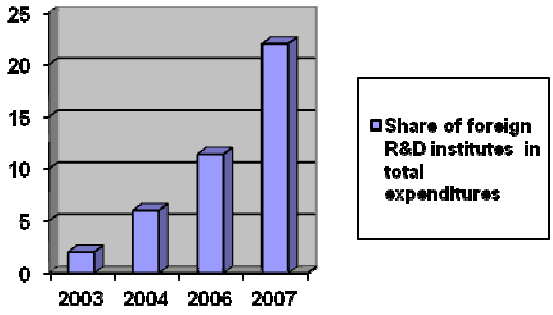

Figure 3: Growth in share of foreign R&D institutes in total DPI's research budget expenditures, 2003-2007 (Source: DPI annual reports)

The Ministry of Economic Affairs contributed 50% of DPI's funding, but in 2008 DPI has come under a new ruling known as the Omnibus (Innovation Programme) ruling that enables parties (like DPI) to make proposals for public-private long-term programmes that fit within selected themes. This resulted in the PIP programme.

DPI programmes tend to be based on projects that last at least four years. The transition to the Omnibus ruling presented a hurdle to the progress of projects that ran through after 2007 and provided no scope for new projects. The consequences were very clear: DPI would be unable to neither enter into new undertakings nor give researchers (mainly PhDs) any kind of guarantee that their projects could be fully funded. New industrial partners would not see their investments being rewarded with new programmes, and this would threaten DPI's appeal as a partner. However, with the approval of many of the applications from DPI for the national PIP programme the continuity of the institute seems to be secured.

The Ministry of Economic Affairs has responded to DPI's situation by providing a transition measure that allows projects scope to run through to 2009 within the current funding framework. This measure thus enables the institute to continue the growth it has achieved in recent years.

3.7.10 Impacts/results

There are no data on the amount contributed to the budget by nationality of the partner or the main location of the involved partners. Only for the share of expenditure for involved knowledge institutes a distinction is made between foreign and non-foreign.

Recently, in 2008, the DPI anounced that they want to upgrade the national Polymer Innovation Programme to a European programme. In this respect, and also in the framework of the bilateral agreements with North-Rhine Westphalia and Flanders, Jacques Joosten of DPI explained: “We have taken the first step towards collaboration with North-Rhine Westphalia (Germany). We are also aiming for a closer involvement of the Belgian region of Flanders in our research.”

One of the changes with the transition towards programme based funding is that DPI has a new body, the Council, in which all participants have a seat. This includes both partner companies and partner universities, irrespective of the amount of financial contribution. On 27 January 2006, the first meeting of the Council was held. There were some important items on the agenda, namely the appointment of new Supervisory Board (SB) members and the approval of the new Regulation with respect to Intellectual Property (IP Regulation). The SB that has now been appointed is considerably smaller, enabling more efficient and responsive decision-making on the operational level. Although participants from companies, universities and institutes located in the Netherlands are well represented in the organisational structure of DPI, in all bodies, boards and committees there are foreign representatives.

The number of patents filed in 2010 is 15. Scientific publications in 2010 were 141. The number of PhD students was 5. The number of industrial partners was 34 in 2010

3.7.11 Evaluation results: Success factors, bottlenecks

In return for the subsidy and according to the PIP procedures DPI has to monitor and report on various results, e.g. in terms of the number of publications, number of patents, number of completed PhD projects, share of contribution from industry, and technology transfer activities.

Another international element concerns international mobility. On the one hand many PhD or post-doc researchers originate from abroad. Also from the people that leave DPI many leave the country, e.g. from the 56 people leaving DPI in 2007, 19 go abroad, mostly returning to their native country. Many of the young researchers, after completing a PhD or post-doc position, find a job at one of the involved companies. All such indicators are requested to be monitored and reported to the Ministry.

Over a 10-year period, some 200 students obtained their PhDs with DPI projects, and at present also about 200 PhD and post-doc researchers are working on DPI & PIP projects all over the world.

The PIP programme is monitored and evaluated by the Ministry of Economic Affairs. Others have also evaluated the Dutch Leading technology institutes in search for cases of good practice in public-private partnerships for research and innovation, e.g. the OECD. A major conclusion of the OECD Growth Study was that governments need to be more responsive to the rapid transformation of innovation processes and related business needs and strategies, and that greater use of public-private partnerships can increase this responsiveness and enhance the efficiency and cost-effectiveness of technology and innovation policy. In the framework of its follow-up work on micro-policies for productivity and growth, the OECD is conducting peer reviews of member countries' public-private partnership (PP/P) programmes for research and innovation. This report examines and assesses PP/P initiatives in the Netherlands, with a special focus on the LTIs. It has been prepared by the OECD

Secretariat, in co-operation with the Dutch Ministry of Economic Affairs and in consultation with other stakeholders in LTIs. It takes into account the results of a peer review meeting which took place in June 2003 within the OECD Working Party on Technology and Innovation Policy.

Again, however, for the evaluations the question is not about the distinction between foreign and domestic (nationality and location), but between the public and private sides of the partnership.

3.7.12 Sustainability

The institute has proven to be sustainable over the years, and managed to attract more private funding.

3.7.13 Transferability

The Institute can not be transferred, but some of the experience can be used by others for their design features. The topic of the research might differ, but there are other such research institutes that function on the same principles.

3.7.14 Why select scheme as good practice?

One of the good practice elements is on how to involve industrial partners and be open to foreign involvement. The Dutch government is still providing a subsidy but the institute as such is not that national or 'Dutch' anymore. In this respect the approach is a case of good practice within the European Research Area (Nauwelaers and Wintjes 2009) which could be used to transform existing institutes into transnational institutes, e.g. at the level of the Western Balkan region.

Also the role of the national Programme is a good example on how to restructure the funding base of public research institutes towards a more competitive approach and to steer the research at public research Institutes towards the needs of society, following a demand-oriented approach.

3.7.15 Contact

Dutch Polymer Institute, P.O. Box 902, 5600 AX Eindhoven, Tel: +31 40 247 56 29, E-mail: info@polymers.nl

3.7.16 Reference, information sources:

Annual reports: http://www.polymers.nl/en

Nauwelaers, C. and R. Wintjes (2009), "Monitoring progress towards the ERA (European Research Area)", Report for the IPTS, European Commission, Seville, March.

3.8 Small Business Innovation Research (SBIR, Netherlands)

3.8.1 Framework in which the instrument is implemented

Public Procurement of Innovation is an increasingly popular kind of (demand oriented) innovation policy which can be used by policy makers to enhance innovation in area's which are prioritised by the government, for the sake of society (addressing societal challenges) and at the same time support innovative SMEs (and generate economic benefit from their success).
The programme is inspired by the American SBIR scheme. In the USA, governments spend a fixed percentage of their R&D budgets at innovative SMEs. The SBIR scheme has also been transferred to Austria (OECD, 2011). The Dutch SBIR scheme is an initiative of the Ministry of Economic Affairs, in collaboration with several other Ministries. Several key SBIR elements which have been translated in 2004 from the US concept to EU context include:

- Competition;
- Contract instead of grant;
- Two paid phases;
- Tailored to starters and SMEs;
- IPR for companies;
- Quick and easy process.

3.8.2 Description

The Small Business Innovation Research Programme (SBIR) is an innovation programme for SMEs. Via the SBIR programme, SMEs develop innovations that contribute to solving societal challenges on a procurement basis for the national government. Recent SBIR themes included green materials, energy savings, clean energy and dike surveillance. Through SBIR, SMEs get the opportunity to develop new and innovative products, processes and services.

In 2005 two other SBIR variants have started: one from STW, and another with TNO. In 2006 three Ministries have started their own SBIR pilots (transport and water, agriculture and Defence). The STW-SBIR track is focussed on valorisation of research at universities. The TNO-SBIR track is a valorisation tool for knowledge at TNO.

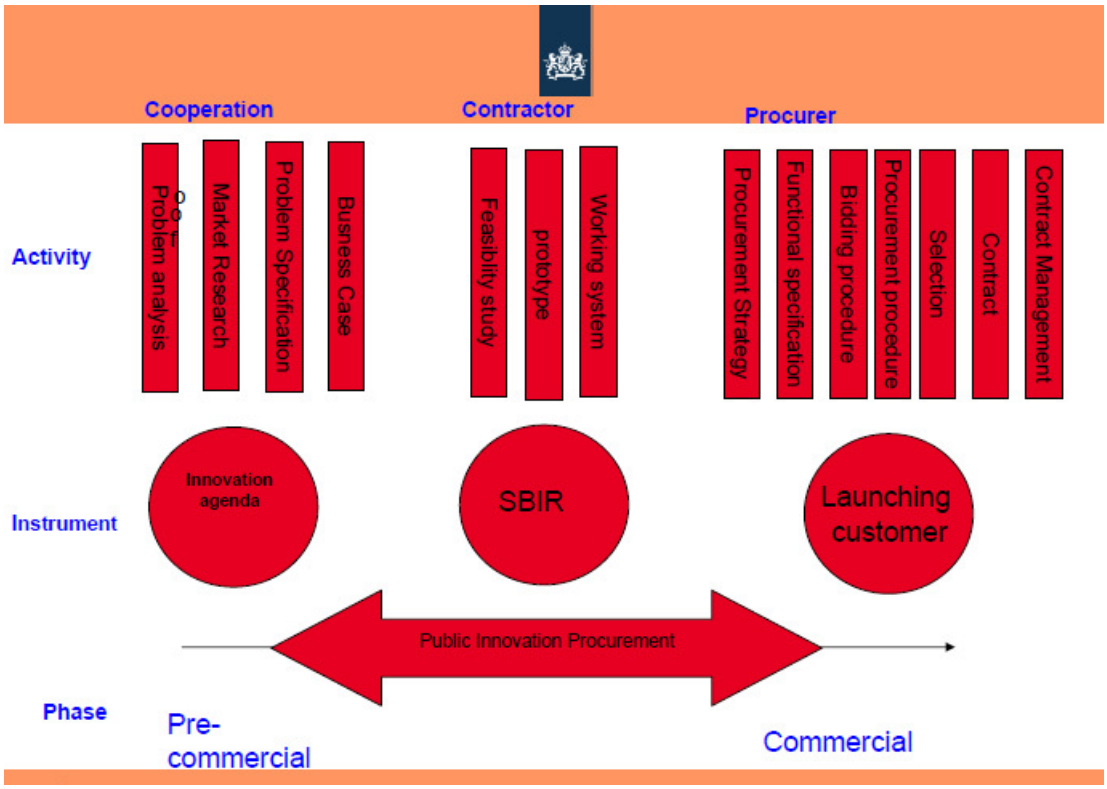

Figure 4: Public Innovation Procurement (Source: Putten, M. van 2010)

The government acts as a catalyst by procuring innovation. Through “pre-commercial procurement” or as “launching customer”, the government is able to stimulate innovative solutions for social issues such as health and the environment.

SBIR projects are procured via tenders. The SBIR-projects consist of three phases: 1) feasibility; 2) research & development; 3) commercialisation of a product, process or service.

The government tenders for phase 1 and 2. Only if phase 1 has been concluded successfully, an invitation for the phase 2 tender is made.

- Public authorities want innovative solutions to solve societal problems
- Demand based policy
- Requires strategic policy of multiple governmental stakeholders
- Cooperation in procurement teams beneficial

An independent committee evaluates the proposals and makes a ranking. The Minister uses this ranking in his/her decision.

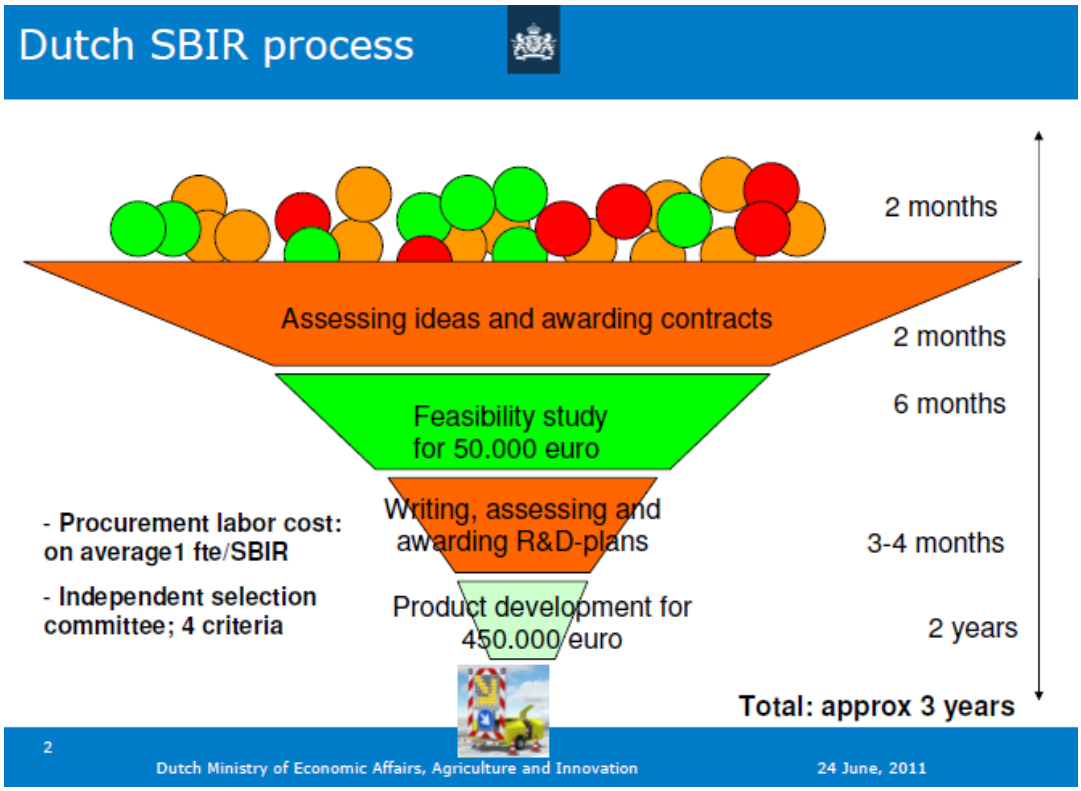

Figure 5: The Dutch SBIR Process

The SBIR process:

1) A ministry allocates the budget, Agency NL executes the program

2) Through publication companies are invited to submit proposals on the specific SBIR-subject;

3) A committee of experts does the assessment of all proposals;

4) Within 6-8 weeks a minimum of 5 winners can start their phase 1 project;

5) In phase 1 there is a fixed price of maximum 50.000 euro for feasibility study (6 months);

6) After a positive result of the feasibility study in phase 1, an invitation for a phase 2 proposal follows;

7) Again a period of 6-8 weeks for proposal assessment, done by the same expert committee as in phase 1;

8) Phase 2 has a fixed price of maximum 450.000 euro for R&D activities for a minimum of 2 companies (24 months)

9) After the report is issued the final payment takes place

Intellectual property rights go to the companies, with certain restrictions. SBIR companies are closely followed and assisted by Agency NL.

Implementation from 2004 onwards, no end date known.

3.8.3 Level (Macro-, Meso- or Microlevel)

The SBIR subjects or problems are defined at macro level by the national government, in an interministerial coordination group, e.g. how can dikes be inspected more efficient? The actual work is done at meso- and micro-level by the involved and selected firms.

3.8.4 Main goals

The SBIR pilot, the Ministry of Economic Affairs aims to stimulate start-ups, young fast growing firms, and SMEs and to challenge them to perform pioneering research. With SBIR the ministry intends to promote the innovativeness of SMEs and the importance of commercialisation of knowledge. The goal of the Dutch government with the SBIR programme is threefold:

- Solving public questions and concerns;
- Stimulating innovation among SMEs;
- Valorisation of public knowledge.

3.8.5 Target group

Only starters, young fast-growing firms and innovative SMEs can submit a proposal, however the evaluation showed that some 10 % of the involved firms are larger than SMEs.

3.8.6 Initiator

The participating ministries can publish a tender which is assessed by an independent committee that advises the Minister. Seven Ministries are involved as initiators, but some examples for four different Ministries should be mentionned:

- ***Ministry of Transport and Water management:***

Application of hydrogen and fuel cell systems in civil works (2006);

Real time dike observation and inspection (2007);

Inland shipping on smaller canals (2007);

Car of the future: energy conservation in components (2009);

Climate adaptive water management (2010).

- ***Ministry of Defence:***

Solutions for maritime operations in bad weather conditions (2006);

- ***Ministry of Environment:***

Reducing methane emissions from manure serves. (2009).

- ***Ministry of Agriculture, Nature and Food Quality:***

Bio-based products (non-food) (2006);

Air cleaning techniques in stables (2007);

Innovative use green raw materials for non-food products (2008);

Replacing animal proteins with new proteins for human consumption (2009);

Logistics of agricultural products (2009);

Better animal friendly stables and farming systems (2010).

3.8.7 Implementer:

Agency NL (former SenterNovem) implements the SBIR programme.

3.8.8 Partner

Cooperating with PIANOo, a Dutch Public Procurement Expertise centre

3.8.9 Budget/Funding

Overall budget 15 mio. €

The available budget is decided per tender. Since 2004 the Dutch government has started SBIR tenders on various subjects, within four different Ministries. The budget per tender is approximately 1 million euro for several (small) feasibility studies in phase 1 and (larger) R&D projects in phase 2. A (rough) estimation of the overall budget in 2004-2008 is 15 mio. € (based on 12 tenders and 1.25 mio. € / tender). In 2009 the budget was 15 mio. €.

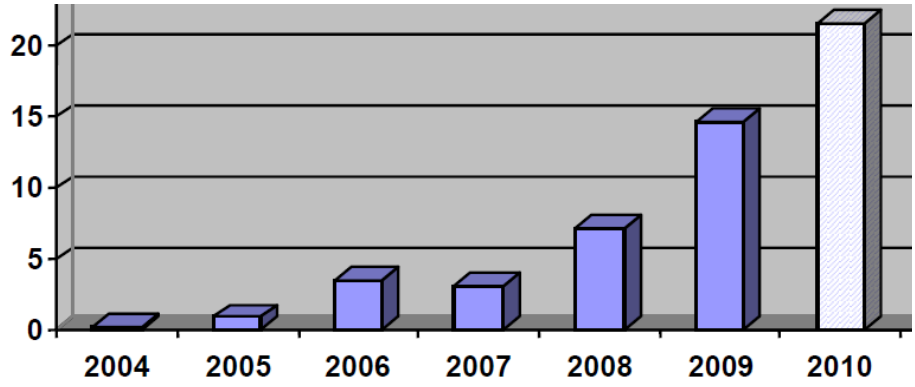

Figure 6: Number of SBIR projects in 2005-2009

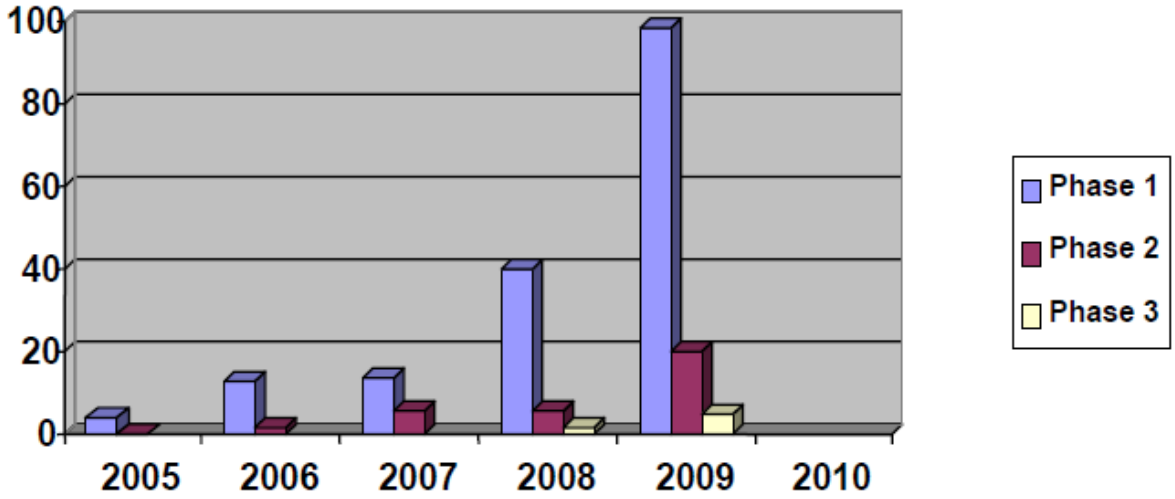

Figure 7: Number of SBIR projects in 2005-2009

3.8.10 Impacts/results

Results first evaluation (May 2007) A first evaluation has taken place and the first impressions are positive. These impressions are based on the data for the first 6 pilots: 88 companies – of which 80 SME – sent in 97 proposals: - SBIR brings in new companies and new ideas. - SBIR companies are small: all contracts were given to companies with less than 100 employees. - SBIR winning companies aim at R&D co-operation Companies that received an SBIR phase 1 contract have more often strategic co-operation in an SBIR project, than companies that did not receive a contract: 89% vs. 47%; with other (SME) companies (42% vs. 7%); with research institutes (18% vs. 17%); or both 29% vs. 23%.

The 2010 evaluation shows that participants are overall satisfied with the three SBIR tracks. One of the recommendations of Technopolis in ther evaluation report is to develop a SBIR track for Large Research Oranisations.

STW uses about 1,2 mio. € a year of the SBIR budget for their Valorisation Grant.

Also from the technology platforms ICTregie en NanoNed, a contribution was made of 0,6 – 1,2 mio € a year to the STW Valorisation Grant. This has generated: 146 phase 1-projects/grants and 48 phase 2-projets/grants. The phase 2 projects have lead to 46 start-ups and 2 innovations in existing SMEs.

Table 3: STW Valorisation Grant

STW Valorisation Grant 2004-2009	fase 1-projecten	fase 1-mln euro	fase 2-projecten	fase 2-mln euro
High-Tech Systemen en Materialen	52	1,3	17	3,4
Life Sciences	52	1,3	16	3,2
ICT	26	0,65	12	2,4
Chemie	16	0,41	3	0,6
TOTAAL	**146**	**€ 3,7**	**48**	**€ 9,6**

3.8.11 Evaluation results: Success factors, bottlenecks

According to Putten (2010) there are some pitfalls:

- Due to lack of understanding of European directives: regulations are conceived as impeding focus on legal issues, not on goal and purpose procurement;
- Limited contact with supplier;
- Risks are avoided, not managed;
- Few organisations have a procurement strategy;
- Many stakeholders, no focus on cooperation;
- Lack of incentives for procurers and contractors.

3.8.12 Sustainability

The SBIR scheme in the Netherlands has been running since 2004, and no end is foreseen.

3.8.13 Transferability

An argument to rate the transferability as high, is that it is already a transferred experience, since it is based on the SBIR scheme in the USA, and has also been implemented in the UK and Australia. However, some of the features are legally complex, and deserves special attention in a different legal environment.

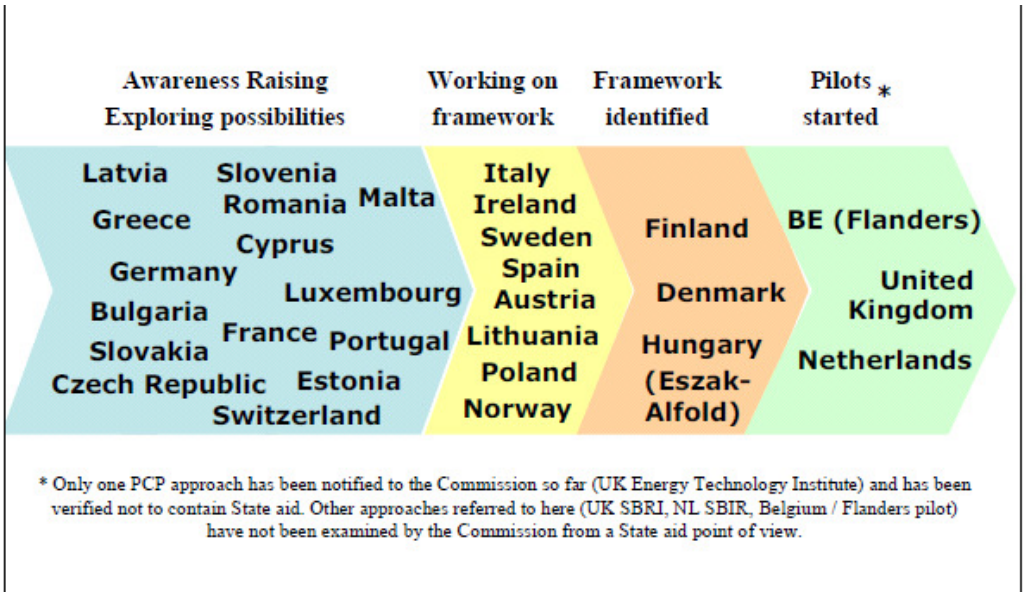

Figure 8: Overview status of implementation of Pre-commercial public procurement measures across Europe (EC survey result beginning 2011)

3.8.14 Why select scheme as good practice?

For many years policy makers were blamed for only supporting the supply side, this tool can effectively be used to steer and support the demand side of innovation policy, by articulating the needs of society and involve (end-)users in innovation processes (Wintjes 2011). Moreover it is particularly relevant to link societal challenges to innovation in SMEs. Public procurement schemes and especially pre-competitive procurement of innovation recently gets much policy attention (see also OECD 2011, and Izsak & Edler 2011) and in this debate the experience of the SBIR programme is recognised as a case of good practice. Edler (2009) also shows that public procurement and other demand-side policies are especially relevant for CEE Member States, and his arguments suggest that this is also the case for the WBC region.

3.8.15 Contact

André Roos, Program manager SBIR-NL, Agentschap NL, The Netherlands. Phone: ++31 88 602 90 00; E-mail: a.p.roos@minez.nl
http://www.sbir.nl

3.8.16 References

Edler, J. (2009). Demand Policies for Innovation in EU CEE Countries. Manchester Business School Working Paper. Number 579, available: http://www.mbs.ac.uk/research/workingpapers/

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Roos, A. (2010), "Public Procurement of Innovation in The Netherlands: a pioneer experience". Presented in Lisbon at the APDC Workshop "Public Procurement: more efficiency or more innovation".

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3.9 Energy Research Subsidy Programme (EOS in the Netherlands)

3.9.1 Framework in which the instrument is implemented

The Energy Research Subsidy programme (EOS in Dutch) is necessary because existing systems of energy production and consumption are approaching their technological limits. Achieving further efficiency improvements is in general difficult and costly. Innovations for better energy systems are needed, not only for the Netherlands but it is a global challenge.

The role of the ERS programme is to initiate and support the necessary innovation processes. In some cases the market itself is already moving fast. The only help that may be needed then is with demonstrating a new technology. In other cases an idea may be in an early stage. Then the road to market introduction may be a long one and often support will be needed. While the ERS programme can thus offer support at each of the stages of the energy innovation trajectory, it also helps the supply of knowledge to better meet the demand of the market.

Since the challenges related to energy are global challenges it is recognised by the Dutch government that international cooperation and opening up to foreign participation is important for future perspectives. It also means that, compared to the policy focus on other technological fields which are basically aimed at enhancing competitive benefits, further energy research is less viewed from a competitive viewpoint. In this respect the research policy is more demand driven or even can be

seen as mission oriented research policy. This also implies that there is less focus on supporting specific existing strengths of research in the Netherlands. In case the needed knowledge or competencies are not available in the Netherlands, it is stimulated to develop and/or import knowledge.

3.9.2 Description

There are 5 thematic research fields within ERS:

1. Energy efficiency in the agricultural and manufacturing industries
2. Biomass
3. New gas/Clean fossil fuels
4. Built environment
5. Generation and Network

An essential element in the design of the programme is linking research phases to innovation processes. The respective types of research have been grouped in four schemes.

Covering the whole path from idea to market introduction the Energy Research Subsidy programme includes the following schemes:

- ERS: New Energy Research. Subsidy for private researchers, and also for researchers at institutes, universities, and companies, intended for the first stage of the innovation chain: developing new, innovative ideas. Projects must have the potential to evolve into a new energy research area or a new direction within an existing energy research area.
- ERS: Long Term. Subsidy for research into a future sustainable energy technology. Projects must reinforce the knowledge position of the Netherlands, provide the economy with a powerful and sustainable economic boost, and facilitate market introduction. This scheme is intended for knowledge institutions and industrial companies.
- ERS: Short Term Energy Research. Subsidy for research and development projects (this includes a first prototype) and feasibility studies. Projects should be innovative and sustainable and should give the Dutch economy a boost. This scheme is intended for companies that collaborate with other companies or knowledge institutions.
- ERS: Demonstration. Subsidy for testing new energy technologies in the environment in which they will actually be applied. This is specifically intended for industrial companies and organizations.

The geographic scope of the research is global. The subsidies can only go to organisations residing in the Netherlands, but it is possible, and in some cases even stimulated to subcontract (up to 50% in some cases) of the subsidy to partners or third parties abroad.

3.9.3 Level (Macro-, Meso- or Microlevel)

Micro- and Mesolevel

3.9.4 Main goals

The government wants to help realise an affordable, reliable and clean energy economy, while fully acknowledging the role the market ought to play in this development.

3.9.5 Target group

The target group of the programme is defined by what is needed to improve the research goal, its technological but also its innovation or market objectives, e.g. in order to demonstrate that a certain new energy saving technology can be more cost efficient. In this respect, regarding international cooperation Agency NL (former SenterNovem) states that: “At each of the stages of a project it may be useful to gather knowledge from abroad or to work together with a foreign research partner. It may also be interesting to engage a producer or an applier from abroad in a research project. For such initiatives support from ERS can also be obtained.”

3.9.6 Initiator

Ministry of Economic Affairs in the Netherlands

3.9.7 Implementer

Agency NL, the agency which implements most of the innovation and energy related programmes of the Ministry of Economic Affairs.

Link: http://www.agentschapnl.nl/en

3.9.8 Partner

Several knowledge institutes and universities serve as partner.

3.9.9 Budget/Funding

Three strands of ERS (in Dutch: EOS) projects are mere research projects. For the ‘Long term’ research projects and the New Energy Research’ projects there is a limit to the amount of the subsidy that can be subcontracted, namely 50%.

Foreign partners residing abroad (outside the Netherlands) do not receive a subsidy. They can participate in the research and get access to the results. Foreign parties, residing abroad, can be involved through subcontracting, but a good reason should be provided, indicating that the necessary knowledge is not at hand in the Netherlands. Regarding the rules for subcontracting there is no difference between EU and non-EU countries.

However, an internationalisation element that does favour intra-EU cooperation is the feature that 10% extra subsidy can be received when a partner from an EU country participates.

There is also a link to relevant ERA-NETs, e.g. “BIOENERGY” and “HY-CO”. The goal of the project "HY-CO" is to network and integrate the national R&D activities by establishing a durable European Research Area (ERA-NET) in the area of hydrogen and fuel cells. For the corresponding ERS projects, foreign EU parties who are interested to participate are referred to this ERA-NET.

In the case of ERA-NET Bioenergy the government decision to "open up 'EOS-Lange Termijn' for projects in the frame of the second call of ERA-NET Bioenergy", was taken on May 2007.

The budgets for the announced tenders for 2009 are 11.4 mio. €. For ERS Long Term it is 10 mio. €, for ERS New energy it is 1.8 mio. €, and for Short term it is 8.6 mio. €.

3.9.10 Impacts/results

When we asked about the amount regarding subcontracting abroad, Angela Juliaans from SenterNovem replied in an interview we had with her that it has happened only a few times. For some programmes the possibilities for sub-contracting abroad are not very openly communicated in the 'marketing' of certain schemes, but in the case of ERS, this is certainly not the case.

3.9.11 Evaluation results: Success factors, bottlenecks

ERS was one of the first programmes in its kind, linking innovation objectives to societal challenges. It therefore has build up much experience. Also the demand-oriented design-features and the integration of the different phases into one programme has been followed by many other innovation programmes.

The activities under ERS is also monitored and evaluated by field of expertise in so called 'status-reports' which report on the results from a more technological point of view.

There is also a document reporting on the results of the last 5 years of supporting energy innovations.

3.9.12 Sustainability

The sustainability of the programme is good given the fact that the programmes has survived many rounds of 'streamlining' of the policy measures.

3.9.13 Transferability

Several features of the programme are easy to transfer to schemes with similar objectives.

3.9.14 Why select scheme as good practice?

Because it is recognised as one of the most 'transnational' friendly research programmes in Europe. E.g. it is mentioned as a case of good practice in a monitoring and evaluation study of policy tools in the European Research Area (Nauwelaers and Wintjes 2009). For the good practice regarding the inclusion of phases in the innovation process 'closer to the market', such as prototyping and commercialisation it is mentioned

3.9.15 Contact

E-mail: eos@agentschapnl.nl.

3.9.16 References, information sources

Nauwelaers, C. and R. Wintjes (2009), Monitoring progress towards the ERA (European Research Area), Report for the IPTS, European Commission, Seville, March. http://www.merit.unu.edu/publications/uploads/1308314467.pdf

ZEW (2009) Analysing and Evaluating the Impact on Innovation of Publicly-Funded Research Programmes (Implore).ftp://ftp.zew.de/pub/zew-docs/gutachten/Implore-Final-04-2009.pdf

Links:

- Rapport Monitoring van publiek gefinancierd energieonderzoek 2009
- Rapport Trendrapportage EOS 2005-2008

3.10 VINNVÄXT-Programme (Sweden)

3.10.1 Regional framework

Sweden's science and innovation profile is one of the strongest in the OECD area. Gross expenditure on R&D (GERD) was 3.75% of GDP in 2008, the highest in the OECD area, although down from 4.2% in 2001. Industry funded 64% of GERD in 2007 (down from 72% in 2001), while government financed 22%. GERD per capita is USD 1 380 in current PPP, the highest in the OECD area. Venture capital intensity is well above average. Sweden's performance on human resources in science and technology (HRST) indicators is strong. In 2008 its 11 researchers per thousand employment was the fourth highest in the OECD area, and the 25% of science and engineering degrees in all new degrees was above the OECD average.[3] Public-private partnership is at the core of "the Swedish model", which was developed by the Social Democrats, who governed for most of the last 70 years until 2006. Nevertheless critical regional disparities (north-south) are characteristic for Sweden's regional economy. In some regions, the infrastructure for commercialisation and promotion of newly established enterprises is underdeveloped. There is a shortage of players offering advice and no physical infrastructure in the form of test beds with measurements or analysis equipment, databases etc. or circumstances for prototype development relevant within the initiative's focus area. Thus, a steady further development on national research and innovation policy is crucial to enlarge the R&D&I base at regional level.

[3] See OECD, Science and Innovation: Country Notes, Sweden, 2010.

3.10.2 Description[4]

VINNVÄXT – Regional Growth through Dynamic Innovation Systems is a programme that takes the form of a competition for regions. The aim is to promote sustainable growth by developing internationally competitive research and innovation environments in specific growth fields. The objective is that the winners will become internationally competitive in their respective fields within this period. A prerequisite for the programme is the active participation of players from the private, public and research sectors and from the political sphere "triple helix"). VINNVÄXT also comprises a number of support activities such as seminars, training/education, the exchange of experience and the extension of knowledge/research. The programme began in 2001.

The factors that make VINNVÄXT different from previous programmes in Sweden are, above all, the long-term nature of the programme, the process support and the fact that it is a competition. The approach to programme design and the programme's collaboration with other organisations are also new.

VINNOVA's support relates primarily to:

a) The development of the identified innovation system, f. ex. the funding of:

- process management development support
- future-oriented processes (looking forward 10-20 years) and technological scenarios (5-10 years)
- analyses and the drawing up of strategies to lift the innovation system to an international level
- the commissioning of research and expert competence in the fields of learning, network organisation and leadership
- the development of preconditions for learning and innovations

b) Funding of **needs-driven research** within the identified growth field. This takes place in collaboration between colleges/universities (possibly institutes) and companies.

The main elements of VINNVÄXT:

- VINNVÄXT takes the form of a competition in which the best submissions win.
- A limited number of regions will receive up to 1,1 mio. € per year.
- The focus is on creating strong regional centres in specific fields.

[4] Information for this and the following sections mainly taken from http://www.vinnova.se/en/Activities/VINNVAXT/; http://www.vinnova.se/en/Activities/VINNVAXT/Presentations/; VINNVÄXT at the halfway mark - Experiences and lessons learned, 2010.

- The programme presupposes the active participation of players from the private, public and research sectors and from the political sphere (i.e. the Triple Helix).
- Long-term: funding will be provided for 10 years.
- A number of support activities (seminars, training/education, the exchange of experience, and the extension of knowledge/research).

3.10.3 Level (Macro-, Meso- or Microlevel)

VINNVÄXT is a programme at macro level (national level). Through the programme approach meso- (regional authorities) and micro-level actors are involved.

3.10.4 Main goals

VINNVÄXT aims to promote sustainable development in regions by developing internationally competitive research and innovation environments within specific growth fields. This will be done by funding needs-driven R&D to strengthen the cutting-edge competence of the respective environments and by means of strategic efforts for the development of effective innovation systems. The objective is that the winners will become internationally competitive in their fields within 10 years.

3.10.5 Target group

Triple helix actors (science, industry, regional public administration).

3.10.6 Initiator

The programme is run by VINNOVA a government agency with 150 employees and an annual budget of approximately Euro 120 million. Its mission is to promote sustainable growth through financing problem oriented research and development of effective innovation systems.

3.10.7 Implementer

VINNOVA (see 3.10.6)

3.10.8 Budget

The winners receive up to 1,1 million Euro per year for a period of 10 years. All the funding provided by VINNVÄXT requires at least 50% in regional co-funding (cash and in-kind contribution). The funding is allocated for periods of 3.5 years at a time, but the intention is that funding should continue for 10 years. The winners must submit a status report every third year in order to demonstrate that the funds are being used for the intended purpose and that the work is progressing.

3.10.9 Impacts/results[5]

Winner by application round:

[5] Information taken from Vinnova: VINNVÄXT at the halfway mark - Experiences and lessons learned, 2010

2003:

- Robotdalen (Robotics)
- Skåne Food Innovation Network / Innovation at Interfaces
- Uppsala BIO

2004:

- Fiber Optic Valley
- GöteborgBIO / Biomedical Development in Western Sweden
- New Tools for Health
- ProcessIT Innovations
- Triple Steelix

2008:

- Biorefinery of the Future
- Peak Innovation
- Printed Electronics Arena
- Smart Textiles

Selected results

Support to regional and national strategic processes: The role of the initiatives in various strategic processes indicates the extent to which the initiative is a legitimate part of the regional leadership and has a mandate to operate or participate in such processes. To differing extents, the initiatives have succeeded in establishing themselves as a legitimate uniting force and representative of their regions and focus areas.

Developing the „competence supply“: Successful project activities identified as being within the area of competence supply include a.o.:

- Contributing to strategic processes relating to competence supply
- Analysis of future needs for competence
- Activities to raise the interest of children and young people, plus activities to advance the quality of education in compulsory schooling and senior high school
- Contributing to the development of new courses, or further developing existing ones at university level within subjects relevant to the focus area
- Contributing to the development of new courses, or further developing existing ones within business development, entrepreneurship and leadership
- Contributing to courses and competence development in companies

Internationalisation: The activities which the initiatives have started or are actively contributing to include:

- Developing the initiative’s approach or a strategy on how the initiative should work on issues of internationalisation
- Exports and investment promotion
- Participation or funding of participation in exhibitions and conferences
- Receiving or arranging delegation trips
- Activities to promote networks or bilateral/multilateral collaboration at milieu level and project level.

Newly established enterprises: For the purposes of promoting growth, the initiatives conduct activities to facilitate commercialisation of university research in the form of new start-up companies or spin-offs of existing ones. The initiatives have varying interest in commercialisation activities, in keeping with their action plans. The initiatives take a role of organising efforts for such infrastructures or building up the infrastructure themselves. This is the case for bodies such as ProcessIT Innovation’s initiative in Umeå. This promotes the development of a company incubator within IT and is envisaged to correspond to the existing biotechnology incubator at Umeå and Fiber Optic Valley Labs. Of the eight initiatives which started operations in 2003 or 2004, six have reported the start-up of new companies based on their operations for the year in question. The number of companies started varies from 1 to 11 for the six initiatives. Three of the four latest VINNVÄXT initiatives report that the initiative has helped start one company each, operating within the focus area.

Competitiveness: In order to develop companies’ competitiveness, the initiatives are running activities to broaden or further develop companies’ product portfolios or

streamline their operations. A number of initiatives are also running operations to develop the operations of public organisations using new goods, services or processes. These activities consist of R&D projects, infrastructure investments and activities which more generally support companies' competitiveness or public organisations' operations.

Changes in the regional science and R&D base: Centres within an initiative's focus area in each region have been established at Lund University, the Antidiabetic Food Center, Linköping University's centre, Linköping Centre of Life Science Technologies, Biomatcell in Gothenburg and UMIT Research Lab (Applied IT) in Umeå. Other examples are Luleå University of Technology's prioritisation of the Process IT research area and Mälardalen and Örebro universities' strong profile within the robotics area. However, it is hard to say how much the initiatives' operations have helped these efforts happen.

Other efforts relate to investments in infrastructure and technological platforms, such as Fiber Optic Valley Labs and the Adopticum development laboratory under the banner of ProcessIT Innovations. In Uppsala, competence at the educational establishments has been strengthened in order to promote commercialisation of the research results in Life Science. In Gothenburg, Biomedical Development in Western Sweden has helped catalyse an increased collaboration between Chalmers and Gothenburg University which has led to a number of new joint efforts within the initiative's focus area.

3.10.10 Evaluation results, success factors, bottlenecks

Success factors at programme level:

- **Long lasting approach**: duration of projects (10 years)
- **Process support:** Process support includes the training courses and the process manager network that have been run by the DahménInstitute since the autumn of 2003)
- **Training:** Since the autumn of 2003, VINNVÄXT courses have been run by the DahménInstitute. The aim of these activities is to develop cross-border, interdisciplinary learning about and for regional development processes, innovation systems in regions and knowledge-driven clusters.
- **Process manager network:** The process manager network is a forum for knowledge development, the dissemination of information and research. The members of the network are process managers, consultants, researchers and others. The aim is to identify questions that are important to people who work in processes of this type, find answers and provide feedback.
- **Resource handbook:** On behalf of VINNVÄXT, the DahménInstitute has produced a process management handbook that provides support for the development of regional innovation systems: "Mobilising for Regional Growth - Regional Development Processes, Clusters and Innovation Systems". The book is aimed at both practitioners and policy developers.

Success factors at project level:

- Strong regional leadership
- Shared vision within a specific area of growth
- Functional definition of the region is a must
- Development of strategies and resources for learning
- Business knowledge

- A strong link between industry and academia
- Long term vision

3.10.11 Sustainability

The Programme started in 2001 and will run until 2016 (and maybe beyond). The projects have a duration of 10 years.

3.10.12 Transferability

The triple helix approach with a strong link between industry and academia combined with the long term vision approach to develop the regional innovation system makes this case interesting to transfer.

3.10.13 Why select scheme as good practice?

- Regional competition approach
- Relative low funding with high return
- Intensive process support and trainings are complementing the projects
- Duration of funding (10 years)
- Triple helix partnership approach

3.10.14 Contact

Lars-Gunnar Larsson, Programme Director VINNVÄXT, VINNOVA, Lars-Gunnar.Larsson@VINNOVA.se; phone: +46 8 473 3137

Internet: www.VINNOVA.se/vinnvaxt; http://www.vinnova.se/en/Activities/VINNVAXT/

Effects of VINNVÄXT in Swedish Regions:
http://www.vinnova.se/upload/dokument/Verksamhet/Starka_FoI-miljoer/vinnväxt/Effects%20of%20VINNVÄXT.pdf

A study of experiences from the VINNVÄXT programme:
http://www.vinnova.se/upload/EPiStorePDF/vr-09-19.pdf

Evaluation report by the VINNVÄXT International Review Team:
http://www.vinnova.se/upload/dokument/Verksamhet/Starka_FoI-miljoer/vinnväxt/Evauation%20Report.pdf

List of winner regions: http://www.vinnova.se/In-English/Activities/Strong-research-and-innovation-environments/VINNVAXT/Winners-2003-2004/

ANNEX

Project showcase funded by VINNVÄXT: A report from Madeleine Neil, Director of Communications at Uppsala BIO

Uppsala BIO positions itself as a facilitator with the overall goal to continuously improve the conditions for continued and improved deliverables from Uppsala's life science sector The facilitator shall identify bottlenecks or "holes", launch pilot activities to solve or bridge them and to establish a permanent base for these activities. Today, Uppsala BIO's offer includes six areas – Verify ideas into proof-of-concept; Commercialize; Grow; Network; Educate and Reach out.
Uppsala BIO-X takes research results into proof-of-concept. Several of the life science companies and projects today in UIC are the result of this program. Since 2004, some 80 new project groups have presented their ideas for evaluation. The BIO-X program selects a few

projects that receive both financial support and a program of advice and reviews. All six projects selected so far have industrial collaborations, three companies have been formed and a number of patent applications have been filed. The advisory box offered consists i.a. of advice on IP-issues, commercial applications, contacts with possible customers. Advisors are Uppsala BIO's partners from the local innovation support system, e.g. UIC, or experienced persons from its member companies. The success factor behind the Uppsala BIO-X process is an active participation from the local network in advising the projects and in connecting them to an international network. Since last year, Uppsala BIO has therefore decided to offer all applicants to Uppsala BIO the advisory box. The offer has been very well received by the researchers.

Uppsala BIO has chosen to run its program with a very slim organization. To still be able to run such a vast program, Uppsala BIO works via its members and partners. They are the possible future "takers" of these actions. Thus, Uppsala BIO's main mission is to build the structures and links that can improve the sector's competitiveness, but not necessarily to run them.

Since the start of Uppsala BIO in 2003, the number of jobs in life science industry has increased by 10% between 2003 and 2007, and the industry's turnover increased by 40%. 18% of Uppsala's workforce is employed in life sciences. To what extent Uppsala BIO has influence this is not easy to measure, but Uppsala BIO is by many considered to be successful. Some results Uppsala BIO is particularly proud of are its program for needs-motivated research, Uppsala BIO-X and the project Innovation Akademiska aiming to create The Innovative Hospital, its contribution to develop Uppsala's innovation support system and the business incubator program Uppsala Innovation Centre, UIC, as well as being the founder of Stockholm-Uppsala Life Science with the mission to market the life science region globally. Uppsala BIO decided at a very early phase not to set up a business incubator for life science companies, but to collaborate with the, at that time, young UIC, Uppsala's incubation program for technology based growth companies. Ever since, Uppsala BIO has an agreement with UIC on what their program shall include for the best possible life science support. So far, 24 new life science companies have grown within UIC, which has developed into an excellent incubator. These companies' return on public investments amounts to almost 200%. This is a measurement relating the total amount of public money invested in the incubator program during one year to the amount of taxes and social fees that the life science companies in the incubator pay (back) to society. Even if results are often difficult to measure, we believe that there is a high return to society from investing in a cluster facilitator. As the facilitator, you will create indirect value for companies, researchers and others. The deliverables will come from partners and members who will be able to deliver just a little more, a little faster and a little more efficiently. Sector needs will change over time. Uppsala BIO is the natural partner that assembles industry, academia, healthcare and society to discuss the sector's long term strategic needs and to take necessary measures - in short, a leadership for the region's life science sector. We believe such facilitator and leadership is what many sectors and regions need to stay innovative and competitive in the long run.

Source: ITB infoservice: Innovation in den nordischen Ländern, 01/2010, p. 24-25 (download at: http://www.internationales-buero.de/de/3690.php); See also: http://www.uppsalabio.se

3.11 Knowledge Management Centre (KMC, Hungary / West-Transdanubian region)

3.11.1 Regional framework in which the instrument is implemented

Széchenyi István University is a major university in the West-Transdanubian region and a reliable cooperation partner (having several years of experience) with companies of the area. The institution constantly expands its knowledge-bases, laboratory infrastructure and research capacities that are used to a larger and larger extent by its partners.

The Knowledge-Management Centre, established on 1st July 2009 is a horizontal service provider of the University. Its professional supervision is performed by the general-and scientific vice-rector.

3.11.2 Description

The Knowledge-Management Centre has been initiated and developed (from October 2009 to December 2011) within the framework of the Social Renewal Operative Programme (TÁMOP, project number 4.2.1.-08/1-2008-0005) of the Hungarian Development Plan (2007-2013) and has been co-founded by the European Social Fund.

The centre contributed to the Open Innovation System of the region with mapping of the knowledge and research results of the University and with building cooperation among universities and between education and industry, and supporting technology transfer and establishment of spin-offs. It also brings science closer to the public with popular scientific events.

3.11.3 Level (Macro-, Meso- or Microlevel)

The Centre operates in a university environment in close cooperation with local partners (i.e. the Chamber of Commerce, INNONET - innovation centre, Pannon Novum Regional Innovation Agency). In addition, the Centre provides several technology transfer services for the broader West-Transdanubian region.

3.11.4 Main goals

The Centre develops services that aim on the one hand at exploring, utilising and supporting the evaluation of new research, innovation and technological transfer opportunities, based on the research resources and competences of the university, and on the other hand to promote the university to become a regional knowledge centre through the development of university knowledge-management processes and information systems, and through active economic and institutional partner management.

Activities of the Centre are the following:

- Assesses, enters into a database and publishes the competences and the scientific activities of the university departments and members;
- Provides data-support and performs analyses on the scientific activities of the university;

- Assesses the innovation requirements of the economic operators and the demands concerning university services;
- Generates research and innovation projects and builds up partnerships;
- Explores the intellectual products originating from the university and designs and manages an intellectual product portfolio from that;
- Supports the technology-transfer and establishment of spin-off companies;
- Coordinates the organisation of the scientific programmes of the university, among others the programme-series “Science for everybody in Győr” that has been operating since February 2010 and makes recorded presentations of this series available on-line;
- Organises trainings and courses in order to generate, effectively manage and administer scientific projects on topics connected to innovation management;
- Prepares industrial branch analyses, including international and national inspections and performs novelty- and market research;
- Cooperates with the innovation operators of the region with national and international professional organisations and establishes partnerships with them.

3.11.5 Target group

University inventors, researchers, research groups and students with innovative business idea.

The basic principles of the operation of the Knowledge Management Centre are the following:

- Customer-orientated and transparent: the operation of the centre has a process attitude, the services are provided in a uniform way and constant information is given to the internal and external clients, in a transparent way.
- Market-oriented: its services closely adjust to the internal- and market demands, that is why the internal and external market demands - connected to its services - are regularly assessed, and the development of its services are based on that.
- Proactive: the centre takes an active role in the development of economic and scientific contacts. The partners and participants are not waited for passively, but they are actively searched out. The cooperation that opens up new opportunities for new technological transfer-and innovation opportunities and market demands are actively searched for.

3.11.6 Initiator

The Széchenyi István University has initiated and implemented the project within the framework of the Social Renewal Operative Programme and has been co-founded by the European Social Fund.

3.11.7 Implementer

Széchenyi István University

3.11.8 Partner

The Centre cooperates with other Hungarian technology transfer offices, with business support organisations, organisations of enterprise promotion (e.g. Chamber of Commerce, INNONET - innovation centre, Pannon Novum Regional Innovation Agency) as well as public and private R&D institutes in the region. The Centre also has a wide range of international cooperation with University of Stuttgart, University of Krems.

3.11.9 Budget

Total of 460 mio. HUF (including self-financing of 15%) – about 1.6 mio. €

3.11.10 Impacts/results

Most of the services offered by the KMC are used by a lot of students and staff members. The most popular activity of the centre is a competence based grant scheme provided for prototype building. The results are quite spectacular, the student teams go further and further in developing their products or services with the assistance of experts working for the KMC. It is expected that these activities will help creating knowledge intensive jobs and start-ups in the region.

3.11.11 Evaluation results, success factors, bottlenecks

The project has not been evaluated yet.

One of the main success factors of the project are those pilot projects that are aimed at producing prototypes co-developed by students and faculty members. These projects were further developed by involving business mentors later on. Some of these projects will lead to the establishment of start-up companies with the assistance of the Centre.

3.11.12 Sustainability

Although, the project founding is completed at the end of 2011, the centre continues its activities and focuses on innovation and business development services.

3.11.13 Easy to transfer?

This good practice could be implemented in those regions, which has a strong R&D capacity with exploitation potential.

3.11.14 Why select scheme as good practice?

The project originally aimed at the establishment of a “classic” university technology transfer office and its services. During the project it turned out that focusing on students’ and staff members’ joint innovation activities could lead to start-up creation quite rapidly in comparison to the longer development cycles of spin-off starting with patenting and licensing activities.

3.11.15 Contact

Széchenyi István University, Knowledge-Management Centre, Dr. Tibor Dőry (director); E-mail: doryti@sze.hu ; Address: 9026 Győr, Egyetem square 1. Inno-Share building IS101.; Telephone: +36 96 613-708

Homepage: http://tud.sze.hu and http://tamop421.sze.hu; http://tamop423.sze.hu

3.12 Regional University Knowledge Centre for Vehicle Industry at Széchenyi István University, Győr (Hungary/West Transdanubian Region)

3.12.1 Regional framework in which the instrument is implemented

In accordance with the industrial traditions and development perspectives of the city of Győr, and based on the main profile of the Széchenyi István University, the focus of research in the last decades was the vehicle industry. The University had an existing co-operation with the most important companies in the region like Audi Hungaria Motor Co, Nemak Hungary Ltd, Lear Hungary Ltd, Rába Ltd …etc.

3.12.2 Description

The Knowledge Centre is specialised in research of vehicle production technology, vehicle unit design and development. The first period of activity lasted from 2006-2008, followed by the recently running project from 2009 to 2012. The tender procedure was initiated by the National Office for Research and Technology based on the consultations with leading universities. The basic framework is project-based support with the possibility of gaining new tenders.

3.12.3 Level (Macro-, Meso- or Microlevel)

The Knowledge Centre operates as a scientific and technology innovation centre, which coordinates a regional R&D network in cooperation with the private sector, thus enhancing the competitiveness of the country as well as the technological and economical development of the region. That means a meso-level activity.

3.12.4 Main goals

The aim of the Knowledge Centre is to build up a significant and internationally competitive research capacity on the knowledge-base of the Széchenyi István University. This would support the industrial participants in the Consortium and other partners of the Knowledge Centre to develop and produce globally competitive, high value added products.

3.12.5 Target group

Regional automotive industry. Multinational companies and Hungarian SMEs.

3.12.6 Initiator

The initiator of the project and the research framework was Széchenyi István University.

3.12.7 Implementer

Széchenyi István University together with partner companies.

3.12.8 Partners

First period (2006-2008): Rába Axle Ltd, Visiocorp Ltd, Borsodi Műhely Ltd.

Second period (2009-2012): Rába Axle Ltd, HNS Ltd, Borsodi Műhely Ltd.

3.12.9 Budget

First period (2006-2008): 6,7 mio. € (60% support, 40% self contribution)

Second period (2009-2012): 4,5 mio. € (71% support, 29% self contribution)

3.12.10 Impacts/results

New axle products for lorries and agricultural tractors, technology development for vehicle and aircraft industry, new measuring methods, computer simulation tools.

3.12.11 Evaluation results, success factors, bottlenecks

Project indicators: new products, services and markets, increase in returns and export, new job positions, higher quality and efficiency at companies.

Success factor: increased innovation potential

Bottlenecks: limited investment resources, market uncertainties

3.12.12 Sustainability

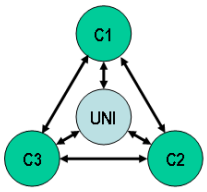
7 years sustainability is guaranteed, the Knowledge Centre works on new tenders for the following years – hopefully with success.

3.12.13 Transferability

Good practice can be used by other actors.

3.12.14 Why select scheme as good practice?

Most effective model of common university-industry research. Close co-operation is among UNI and companies – all beneficiary partners. They form multi-lateral network, everybody is working with others (see the scheme). The development tasks are determined fundamentally by the enterprises!



3.12.15 Contact

Prof. Imre Czinege, President of Steering Committee; Regional University Knowledge Centre for Vehicle Industry; Széchenyi István University; Egyetem tér 1. H-9026 Győr, Hungary; e-mail: czinege@sze.hu

3.13 Semmelweis International Bio-Entrepreneurship Programme (SIBE, Hungary, Central Hungary Region)

3.13.1 Regional framework in which the instrument is implemented

Creation of new companies from research results is a key step in the commercialisation process. However, very few if any training programmes can specifically address this issue, although it is agreed that building and driving a start-up company requires special skills in both technological and business areas.

3.13.2 Description

This is a postgraduate training programme designed for individuals working or wishing to work in life sciences start-ups. The course is 3 semesters, 320 hours, with only 3 contact weeks and lots of online mentoring and coaching. This is very much a bottom-up approach, where the participants start real companies from real basic research results.

3.13.3 Level (Macro-, Meso- or Microlevel)

Microlevel.

3.13.4 Main goals

new biotech company formation through education

3.13.5 Target group

young professionals

3.13.6 Initiator

Semmelweis Innovations, a university based innovation agency.

3.13.7 Implementer

Semmelweis Innovations

3.13.8 Partner

Göteborg International Bioscience Business School

3.13.9 Budget

roughly 100 000 EUR per programme

3.13.10 Impacts/results

5 new business opportunities per programme

3.13.11 Evaluation results, success factors, bottlenecks

About 24% of our graduates started a new company and 10% became leaders, which both were close to 0 in the control cohort.

3.13.12 Sustainability

High sustainability potential. Tuition fee-based funding plus any regional or other type of soft funds for the projects and start-ups themselves.

3.13.13 Transferability

Easily transferable, it was designed with know-how transfer in mind.

3.13.14 Why select scheme as good practice?

This is an easily transferable programme which is able to fill a unique niche between science and business.

3.13.15 Contact

www.sibe.hu, lacza.zsombor@semmelweisinnovations.com

3.14 Future for Moldova (Germany/Moldova)

3.14.1 Regional framework in which the instrument is implemented

Since Moldova is located directly on the border of an enlarged EU, instability and poverty in this country are a matter of concern for the European Community. Moldova is a small, very poor country, land-locked between Romania and Ukraine. Before Moldova gained independence in 1991, it was fully integrated in the Soviet system and had little connection with the outside world. Moldova's major role was to supply agricultural products while being entirely dependent on imports to meet energy needs. This led to Moldova experiencing a particularly severe "terms of trade" shock upon the break up of the Soviet Union. Moldova can be described as a transformation economy and civil conversion society. For a good decade the country is reforming its economy towards market orientation and is about to rebuild the society on the basis of fundamental liberties, political stability and democratic rules. One can also notice that the research and innovation system in Moldova is in its infancy. Links between academia and industry hardly exist. The same applies for regional innovation systems. The heritage of the formerly strongly centralised research policy has not yet been overcome.

3.14.2 Description

The lack of systemic structures in Moldova was an issue of a conference organised by the German Ministry of Education and Research (BMBF), the IB (International Bureau of the BMBF) and ZENIT in cooperation with the Supreme Council for Science and Technological Development Moldova (second partner in the Future-For-Moldova project) in September 2003 in Chisinau. The conference's general objective was to help Moldova to develop a modern innovation system which would then be able to foster the country's industrial restructuring and civil conversion policy.

Against this background the implemented INCO project intended to support the structural change and transformation processes in Moldova regarding the aim to contribute to poverty alleviation and sustainable economic growth as an overall

objective. A more specific target of the activities was to contribute to the structural change in two different sectors of the economy and comprised the elaboration of a foresight blueprint. The World Bank has identified as key potential sources of growth the agro-industry and the information technology sector.

In order to achieve this more general objective, the implementation of the following operational objectives had to be performed:

- Analyses regarding socio-economic problems in the two relevant sectors (SWOT) by means of moderated workshops conducted by the German partner.
- The SWOT formed the basis for the Scenario Writing Workshops in the Region of the Republic of Moldova. In those workshops the SWOT had to be specified and possible activities/recommendations had to be elaborated.
- Transfer of methodology and Know-how between the three consortium partners (Germany, Republic of Moldova and Romania) within the nationwide conferences and more specified by training seminars for Moldovan key actors.
- The objectives of the training sessions were the introduction and moderation skills and foresight exercises of the members of the core project group. One seminar was held in Germany and one in Romania. The products of the training seminars were a work plan for the implementation of the regional workshops in Moldova and additional knowledge about Foresight.
- Establishing of a Foresight blueprint with the project core group under survey of two advisory committees and key actors in relevant regions.
- The Blueprint intends to diffuse the project methodology and the results to a wider audience and give Moldavian stakeholders a tool to perform a Foresight process on their own.
- Identification of future oriented research topics (R&D policy recommendations for Moldova) within the planned regional workshops.
- Increase of the “Embarkment Potential” to ERA (European Research Area) by means of improvement of the Moldovan participation in the thematic priorities of the Sixth Framework Programme.

3.14.3 Level (Macro-, Meso- or Microlevel)

Mesolevel

3.14.4 Main goals

- Transfer of know-how between the three consortium partners;
- A SWOT analysis regarding the socio-economic problems in the sectors of agro-industry and information technology;
- Elaboration of a foresight blueprint;
- Identification of future-oriented research topics aligned with the intention of a potential participation within relevant thematic priorities of FP6 and respectively of FP7.

3.14.5 Target group

Moldavian Stakeholders of the agro-industry and the ICT sector

3.14.6 Initiator

ZENIT GmbH, International Bureau of the German Federal Ministry of Education and Research, the Supreme Council for Science and Technological Development Moldova

3.14.7 Implementer

ZENIT GmbH (Germany); Agency for Innovation and Technology Transfer, located in the Academy of Science in Chisinau (Republic of Moldova); InnoConsult - Consultancy experienced in European Project in Bucharest (Romania)

3.14.8 Partner

see point 7

3.14.9 Budget/Funding

The project was funded by the European Commission with 175.000 EUR.

3.14.10 Impacts/results

First of all we have to state that the impact of the project on the Agro and ICT industry is not tangible. But:

- The project generated detailed information of both sectors and the economic situation in the Republic of Moldova as a whole.
- The project brought together relevant stakeholders of the two sectors and made them discuss the future and name their needs.
- The project published a BLUEPRINT (also in Romanian language) that can be understood as a guideline/tool in order to generate further FORESIGHT activities in the Republic of Moldova.
- The regional workshops made Moldovan stakeholders familiar with new moderation techniques.
- The participants of the conferences and workshops were sensitised for the European Research Area and funds.
- The project initiated contacts and first joint activities between the Moldovan and Romanian TTI (Technology Transfer and Innovation) experts.

3.14.11 Evaluation results: Success factors, bottlenecks

No evaluation has been made.

3.14.12 Sustainability

The foresight blueprint approach can be transferred to other sectors and market segments and is therefore suitable for a long-term impact.

3.14.13 Transferability

The approach of Future for MD could also be applicable for other transition countries (former Soviet Union).

3.14.14 Contact

Michael Guth, mg@zenit.de; ZENIT GmbH, www.zenit.de/e/

(www.future-for-md.eu - but no longer active!)

3.15 Genomnanotech Regional Knowledge Center (Hungary/ Region Észak-Alföld)

3.15.1 Regional framework in which the instrument is implemented

The National Office for Research and Technology was responsible for the implementation of the government's Science, Technology and Innovation Policy, including the drafting of R&D and innovation programmes and managing international R&D co-operations on behalf of the government.

3.15.2 Description

The National Office for Research and Technology realised that the subsidisation of innovation-oriented R&D at universities is very important and the commercialisation of research results is essential as well. With the support of "Pázmány Péter Program" the industry and universities could cooperate and develop products/services/ technologies together. This increased the regional and national competitiveness of the country.

This was a top-down approach programme and a temporary intervention for a 4 years period.

The Regional Knowledge Center projects are supported financially by the National Office for Research and Technology (the Hungarian government's grant management organisation) and implemented through a consortium. Universities and state-financed, non-profit or other research organisations, and companies located within 60 kilometers of the university can apply jointly. The consortium is headed by a university, and industrial partners must be involved in the project. There is no limit on the number of partners involved.

The activity of the Knowledge Centers is based on research and development including basic research, applied research and experimental development with a well-defined professional focus.

3.15.3 Level (Macro-, Meso- or Microlevel)

Mesolevel – regional impacts.

3.15.4 Main goals

- to carry out internationally competitive, well-focused and application oriented research and development in a consortium,
- to facilitate the commercialisation of inventions, patents and other research results,
- to build a modern R&D infrastructure and provide companies with R&D services,
- to involve PhD students and young scientists in R&D activities,
- to extend international R&D cooperation,
- to foster collaboration between research institutes, enterprises and industrial actors,
- to increase the number of new start-up and spin-off companies and incubation centers,
- to upgrade innovation related skills and diffuse new technologies among enterprises,
- to ensure that future skills meet the innovation needs of enterprises and facilitate the access of enterprises to skilled and professional research personnel.

3.15.5 Target group

Universities and state-financed, non-profit or other research organisations, and companies located within 60 kilometers of the university.

3.15.6 Initiator

The National Office for Research and Technology (the Hungarian government's research grant management organisation).

3.15.7 Implementer

University of Debrecen (and 18 other universities/research centers).

3.15.8 Partner

16 industrial partners were involved in the project.

3.15.9 Budget

Subsidy of 6 million € with a contribution of 3.5 million € of the participants' own financial resources.

3.15.10 Impacts/results

Altogether 19 Regional Knowledge Centers have been established in Hungary in the last five years, and these have been conducting internationally competitive, application oriented research projects. The significant innovation activities and collaboration with industrial partners have caused scientific and economic benefits for all participants, especially for the region. Employment has increased, and university

and PhD students have been involved in research and development. An innovation-led, business-oriented approach has developed in higher education. Major sectors affected: automotive industry, info-bionics, genomics, neurobiology, mechatronics, information technology, nanotechnology, the pharmaceutical industry, food safety, energy industry, e-science.

Concerning *Genomnanotech Regional Knowledge Center (Debrecen):* in addition to the quantitative results of the project (110 new technologies were developed, 38 new IP-s were created, 6 spin-off companies were set up, 55 % annual average growth of net income of partner companies was measured), the ripple effect created in the regional economy has been significant. In synergy with other projects, an innovation management system was set up in the region, creating a better investment and innovation environment. For the utilisation of the results of GND research & development subprogrammes, new spin-off companies were founded, some of which already gained strength and generated further investments. Six SME's with biotech profile settled down in the bioincubator center of the University of Debrecen, which was also under control of the GND management team.

3.15.11 Evaluation results, success factors, bottlenecks

Lessons learned: the importance of cooperation and the human factor are essential for innovation, but the presence of legal and administrative (e.g. incentive system) obstacles can slow down the process.

Success factors: Motivated, cooperating people, and synergistic effects with other innovation projects. We can conclude that a university with solid financial background, well-defined R&D projects and clear long-term goals can create a ripple effect in the economy.

3.15.12 Sustainability

Further funding is needed; a four years period is not enough to strengthen this kind of cooperation.

3.15.13 Transferability

The system is easily transferable.

3.15.14 Why select scheme as good practice?

Highly motivated researchers and local R&D companies in establishing research collaborations and generating new innovations.

3.15.15 Contact

Dr. László Mátyus; Director of the Genomnanotech Regional Knowledge Center

University of Debrecen, Phone: +36 52 532 200; E-mail: lmatyus@med.unideb.hu

3.16 Innovation officer (Netherlands)

3.16.1 Regional framework in which the instrument is implemented

The Innovation Officer scheme is implemented in the framework of the EU Operational Programme South Netherlands (OP-South) – Priority 1: Knowledge Economy, Entrepreneurship and Innovation.

This priority 1 is aimed at strengthening the innovative power of the southern Dutch economy and further enhances and expands the position of the southern Netherlands as a top technology region. Within this priority a lot of attention is on Research and Development (R & D), creativity and entrepreneurship because it is the breeding ground for innovation (the creation of new products and services with economic value)

Within Priority 1 four specific SME funding schemes are developed for (SME) business community. These grants are intended to make it easier for businesses to apply for grants in the OP-South program. It concerns the following subsidies:

- Innovation Officer
- Innovation Projects
- Innovation Advice
- Social Innovation Advice

3.16.2 Description[6]

Small and medium-sized enterprises (SMEs) are an important source of innovation. To enhance their innovation efforts, SMEs have increasingly been targeted by innovation intermediaries and policy makers. This paper presents one such intervention, called “Innovation Officer”, implemented by Syntens, a not-for-profit Dutch innovation intermediary. This intervention aims at stimulating innovation in SMEs by overcoming their lack of time and qualified personnel. An evaluation was conducted by means of an internet questionnaire and in-depth interviews of three cases. Results show that innovation officers influence a large number of topics, enhance actual innovation outcomes, and assist in overcoming the time bottleneck of SMEs. Their roles are highly diverse, but often emphasize the importance of external contacts for innovation.

All SMEs in this region can apply. Applications are subsequently screened on the quality of the proposed innovation project on which the proposed innovation officer is to work. Finally, an independent committee, composed of entrepreneurs and innovation professionals, decides to grant or to decline the request for an innovation officer.

3.16.3 Level (Macro-, Meso- or Microlevel)

Micro-level

[6] Based on Peutz, M., G. Stultiëns (2010) “Enhancing innovation in Small and Medium-sized Enterprises through short-term placement of Innovation Officers”.

3.16.4 Main Goals

The Innovation Officer scheme aims at:

- Filling knowledge gaps in SMEs, particularly in the area of innovation
- Launching of innovation processes in SMEs
- Bring knowledge of innovation processes and change processes.

The objective of this scheme is that SME entrepreneurs use knowledge. An Innovation Officer is as an employee that should operate within the SME as a driver of innovation. The main focus is on detecting opportunities for innovation and effective implementation of innovation. The employee must submit Innovation knowledge of change and knowledge of innovation processes. Each application is reviewed by an independent expert committee.

3.16.5 Target group

Grants can be requested by individual SMEs or one of the following groupings:

- Associations of at least two independent companies.
- Associations of one or more companies and one or more research organisations.

For individual SMEs, in order to be eligible for this grant, the following requirements have to be met:

- The grant applicant is located in the region of Limburg, Oost-Brabant, West-Brabant or Zeeland,
- The use of the innovation is aimed at encouraging employee innovation,
- The use of innovative employee benefits to the South Netherlands,
- For the use of innovation officer there is a balanced budget,
- The innovation officer is seconded from a research organization or a large corporation, being a party in the chain,
- The innovation officer has at least been working two years at the research organization or large enterprise,
- The employee is working on innovation within the SME,
- The innovation officer does not replace another employee, but works in a newly created role within the SME,
- The innovation employee works in Research and Development and innovation,
- The innovation officer brings knowledge of change and innovation processes.

The intervention was initiated in January 2008. By September 2009, 37 SMEs applying for subsidised employment of an innovation officer had been granted approval by the independent committee. These SMEs operated in the fields of medical technology, (high tech) industry, agro & food industry, creative industry and logistics. The (high tech) industry SMEs were the most active applicants for Innovation Officers (22 officers placed), followed by medical technology (7), Agro and

food (5), creative industry (2) and logistics (1). The SMEs employed up to 225 people, with an average size of 22 employees.

3.16.6 Initiator

Stimulus Program Management and Syntens

3.16.7 Implementer

Syntens is a Dutch not-for-profit innovation intermediary, supporting SMEs having 5 to 250 employees through numerous activities and projects, ranging from pure intermediation and referrals to providing free consult to improve the innovation process. The aim is to increase the revenue of those companies by means of innovation. Activities cover the entire innovation process, but focus on the initial phase of innovation processes. Activities are offered to SMEs in six pre-designated sectors: industry, human health, construction, creative industry, wholesale & logistics, and food & agribusiness. They include individual consult, establishing Innovation Action Plans, organizing workshops on relevant themes, etc. Syntens conducts these interventions within a limited timeframe. The Syntens consultants work impartially and match the entrepreneur to valuable parties via their extensive network of companies and institutions.

Syntens employs approximately 450 people. Its head office is located in Nieuwegein, and Syntens has fifteen regional offices throughout the Netherlands, from which four are based in the southern part of the Netherlands. There are close contacts with the national, provincial, and regional government, political circles and a large number of industrial associations operating in the region. Thanks to the regional network structure, the innovation consultants are easily accessible for entrepreneurs.

Syntens' activities are funded by the Dutch Ministry of Economic Affairs, regional governments, and several other public sector organisations. This allows Syntens to operate independently and free of charge for the entrepreneur.

3.16.8 Partners

Stimulus Program Management and Syntens

3.16.9 Budget

The innovation officer intervention is supported by the European Fund for Reconstruction and Development. The budget is € 92,950,000 for all Priority 1 schemes, which includes Innovation officer.

Funding comes from: European Regional Development Fund (ERDF), Dutch Government (Ministry of Economic Affairs), Provinces, Municipalities

The subsidy amounts to 35% of the eligible costs, up to a maximum of € 30,000.

3.16.10 Impact/results

Innovation officer is part of the larger Operational Programme supported by EU Structural Funds. An interim evaluation and impact assessment is done at the level of the priorities.

Peutz and Stultiëns (2010) show that both SME representatives and innovation officers report a high influence on innovation determinants.

SME representatives report a significant influence on time issues, while innovation officers report an additional influence on market knowledge. Considering innovation output, both SME representatives and innovation officers report a significant influence on all output segments except for “new market areas within the Netherlands” and “patent application”.

In sum, Peutz and Stultiëns (2010) conclude that: *“innovation officers seem to influence a large number of effects, have a positive influence on resolving time issues within SMEs, and prove to play an important role in realizing actual innovation outputs”.*

Table 4: Progress indicators on all priority 1 themes

Indicator		Cumulative until 31-12-2009	Total
Number of R&D projects	Committed	354	
	Target		350
Private R&D investment (€)	Committed	100,950,861	
	Target		100,000,000
Public R&D investment (€)	Committed	24,741,668	
	Target		20,000,000
Supported start-up companies and small companies <5 years	Committed	2,279	
	Target		250
Number of supported SMEs	Committed	3,352	
	Target		1,200
Number of partnerships between businesses and knowledge-/research institutes	Committed	468	
	Target		275
Number of gross jobs created (in FTE)	Committed	4,245	
	Target		510

3.16.11 Evaluation results, success factors, bottlenecks

The results of the evaluation by Peutz and Stultiëns (2010) show that the intervention especially succeeds in overcoming the time constraint many SMEs face in the light of innovation. Furthermore, innovation officers are found to enhance innovation processes and output within the participating SMEs. Innovation officers enable the SMEs to focus on innovation projects and prioritize these without being distracted by daily operations. In addition, the importance of using external contacts in innovation projects appeared to be significant.

Within one company the innovation officer was no longer employed at the time of the questionnaire, within eleven companies, the innovation officer had just been employed. For the remainder of companies, the innovation officer had been employed for one year or longer. The majority of SMEs was satisfied (6) or highly satisfied (8) with the innovation officer. Only one SME was highly dissatisfied and the remainder was neutral regarding this question (4). Finally, regarding the statement that an innovation officer would be employed without subsidy, six SMEs (completely) disagreed, six were neutral, and seven (completely) agreed. Hence, for

approximately one third of the SME participants, the financial support provided by the program was crucial for hiring an innovation officer.

3.16.12 Sustainability

The large sustainability of this programme is evidenced by the fact that this scheme had a previous 'life' under a different name during the 1990s: KIM which is a Dutch abbreviation for 'knowledge carriers in SMEs'.

3.16.13 Transferability

The transferability of the scheme is evidenced by the fact that this type of scheme has diffused to many other regions, albeit under a different name.

3.16.14 Why select scheme as good practice?

This scheme supports the broad base of SMEs and not only the most high-tech or innovative ones. It stands for a whole group of similar schemes which provide support for hiring a high-educated young employee in SMEs which normally would not do so because of the high wage costs. It is in many ways a sensitising instrument to learn SMEs how to innovate and stimulate an innovative culture and strategy for the SME.

As such it seems very relevant for the WBC region.

3.16.15 Contact

Syntens; Tel: ++31 88- 444 0 444

3.16.16 References

Peutz, M., G. Stultiëns (2010) "Enhancing innovation in Small and Medium-sized Enterprises through short-term placement of Innovation Officers".

http://www.op-zuid.nl/

3.17 Kplus/COMET (Austria)

3.17.1 Regional framework in which the instrument is implemented

During the 1990s a priority of technology policy in Austria was to enhance the linkages between the academic and the business sector. A specific programme, the so called Kplus-programme has been designed and implemented. With this programme so called Kplus-Centres (organised has Ltd. in which all partner hold shares) have been financed in which partners from the academic sector and the business sector are co-operating. This programme has been open for foreign firms, i.e. a foreign firm with no subsidiary in Austria was able to participate in a Kplus-Centre. However, the share of foreign firms was limited to 25 % of a Kplus centre (based on the volume). In overall the share of foreign firms amounted to about 12 % in 2003. Recently, Kplus was redesigned and integrated in a new programme, called COMET ('Competence Centres for Excellent Technologies'), which is based on the same principles but has three distinct programme lines. COMET is also open to

foreign firms and international co-operation is a stated aim, especially in the so called K2 line, which targets cutting edge research and aims at a high international visibility.

3.17.2 Description

The Kplus programme was established in the 1990s to address the perceived lack (or low intensity) of the interaction between the private sector and the research base at universities and other public research institutions. Its aim was to foster collaborative, mid- and long-term research and to establish a general culture of collaboration between the hitherto rather different sectors of private and public research. The program funded the establishment of so-called Kplus Centres which are organised as public-private partnerships (usually in the form of limited companies with shareholders from the private as well as from the public partner) and are centred around a pre-defined research theme. To obtain a 'critical mass' and to avoid 'single firm centres' there is a requirement for a minimum number of 5 industrial participants.

The selection process of the centers introduced a novelty into Austrian technology funding schemes, insofar as it was a competitive process between different proposals. Calls for proposals have been launched regularly. There were no pre-selection of technological/scientific areas or types/status of proposers. Consortia bidding for the grant were formed in a self-organised way between business and academia. Proposals are evaluated on the basis of

- their scientific and technological quality,
- their ability to ‚cluster' existing scientific and economic competence into ‚critical masses',
- their estimated economic benefit for Austrian companies and
- the quality of the business plans.
- The main instrument of the evaluation process is peer-review.

Volume: To ensure the formation of critical masses, some ‚target size' indicators are used: centers should have an annual funding of about 2,2-4,4 mio. €) and some 25-50 staff.

Duration: Centers are established for a period of 4 years, with the possibility of an extension (following an interim evaluation) for another 3 years. There is no a-priory set limit for the duration of the whole programme, but at the start is was estimated that some 20-25 centers would be a ceiling for Austria.

Institutional setting and organisation: There is considerable leeway for the organisation of internal relations between the partners. Most centers are organised as limited companies. There is a requirement for a minimum number of 5 industrial participants, in order to avoid single firm centers and unfair preferential treatment which might have effects on competition.

Building on the experiences and the success of the Kplus-centres a revised programme, COMET - Competence Centres for Excellent Technologies has been launched in 2006 as a successor programme. Special support will be given to those research activities which operate at the cutting-edge and which also promise a high international profile. The competences of the players working at the centres are to be bundled to a greater extent than in the past, with the aim of systematically leveraging content-related synergies in order to obtain a global competitive advantage. Finally,

the programme should also make a major contribution to developing human resources in Austria with attractive offers for researchers.

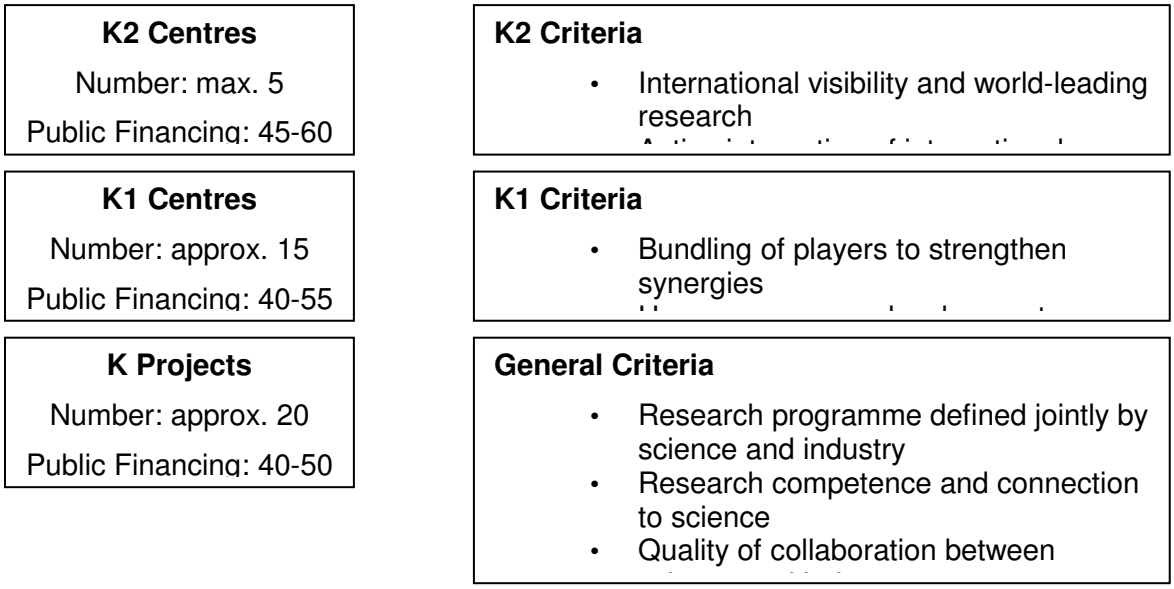


Figure 9: Programme Lines and Criteria of COMET

3.17.3 Level (Macro-, Meso- or Microlevel)

Meso-level

3.17.4 Main Goals

The purpose of the Kplus programme was to improve the cooperation between scientific institutions and the industry in Austria and to conduct top quality research in internationally competitive dimensions. Kplus funds collaborative research facilities jointly run by enterprises and research institutions (universities, government research labs etc). Research carried out in the center should be pre-competitive. Individual projects run by the center should involve multiple partners.

The successor COMET programme aims at private enterprises and research institutions which carry out high-quality research with high potential for economic application. The new programme COMET has three programme lines (K, K1 and K2) which are scaled according to their target, ratio of public financing and duration. All three programme lines of COMET are thematically open. However, every centre and every research project must have a self-defined theme.

3.17.5 Target group

There are no thematic priorities defined ex-ante. The thematic orientation results solely on the decisions made bottom-up by the collaborating partners (firms & research institutions). The research efforts are mainly characterised as applied research.

3.17.6 Initiator

Along with the subsidies, some help is provided in the preparation phase of the proposal and the establishment of the organisation of the center. Management advice is also provided throughout the duration of the project. Subsidies are in the form of grants, up to 35% coming from the FFG. Enterprises bear a minimum of 40% of the costs, the remaining 25% stem from other public sources.

3.17.7 Implementer

The Austrian Research Promotion Agency FFG is responsible for the management of COMET.

3.17.8 Partners

The partners involved differ per competence centre. Company partners provide most of the funding (325 mio. €).

Figure 10: Location of the Austrian centres

3.17.9 Budget

National funding is provided by the Federal Ministry of Ministry for Transport, Innovation and Technology (BMVIT) and the Ministry of Economic Affairs and Labour (BMWA). The programme is administrated by the FFG.

Total Budget	692 mio. €
Federal Funding	220 mio. €

Regional Funding	112 mio. €
Scientific Partners Financing	35 mio. €
Company Partners Financing	325 mio. €

Funding & Financing

FFG

	K2 Centres max.	K1 Centres max.	K Projects max.
Public Funding	55%	50%	45%
Company Partners	40%	45%	50%
Scientific Partners	5%	5%	5%
Public Funding max. (Federal & Regional 2:1)	7,5 Mio. EUR/ Year	2,25 Mio. EUR/ Year	0,675 Mio. EUR/ Year

Figure 11: Funding and Financing of Kplus

3.17.10 Impact/results

To be checked. No evaluation results in English found.

3.17.11 Evaluation results, success factors, bottlenecks

The competence centres programmes are regarded as one of the most successful technology policy initiatives in Austria and even gained significant positive international recognition as a good-practice/best-practice example. In 2600, about 1500 researchers from academia and private business sector collaborate on jointly defined research programmes at more than 40 centres (including the centres of the 'sister programmes' k_ind and k_net. The total volume of R&D performed amounts to about 110 million EUR per year. The programmes are internationally recognised as good practice models. An evaluation and assessment of possible future development for Kplus (as well as its 'sister program' Kind) was carried out in 2003/2004 by a consortium consisting of international (Fraunhofer ISI) and national (KMU Forschung Austria) institutions (Edler et al. 2004). There are no known evaluation or monitoring results for the successor programme COMET, but the website shows a evaluation concept that describes ex-ante the process, indicators and method for evaluation.

3.18 Support to accredited innovation clusters (Hungary)[7]

3.18.1 Regional framework in which the instrument is implemented

In order to promote the formation of clusters in the Hungarian NIS (as networking and co-operation is one of the weaknesses of the system) it is important to support the establishment of innovative co-operations within the framework of so-called "pole innovation clusters" which have a proven market capacity.

In Hungary, cluster policy is part of the so called Pole Programme, which is a comprehensive economic development programme. The overall aim of the Pole Programme is to enhance the international competitiveness of the Hungarian economy by fostering clusters with strong innovation and export potential and by supporting development projects for an improved business environment in the main pole cities of Hungary. Therefore the Pole Programme has two main pillars: cluster development and horizontal economic development.

Cluster development aims at helping develop clusters that in the middle-long run can reach international competitiveness through high value-added, export-oriented and innovative activities. Clusters are considered as economic entities and from the existence and operation of successful clusters a remarkable contribution to the long-term sustainable growth of the Hungarian economy is expected.

The horizontal economic development makes the ground for successful clusters by creating favourable business environment with skilled and available labour-force, innovation centres, high-end R&D&I infrastructure, etc.

3.18.2 Description

This scheme aims to support the joint projects of innovative companies co-operating within the so-called "pole programme". The basis of joint technological development shall be independent project-firms owned jointly by several members of the given cluster.

In September 2008, nine export-oriented and innovative applicants were the first ones to be awarded the so-called „Accredited Innovation Cluster" title by the Pole Accreditation Board and the National Development Agency.

This marks the end of the first stage of the so-called Pole Programme which, linked to the „pole" cities of the seven Hungarian regions, aims at identifying and later on supporting and strengthening bottom-up, self-organised groups of co-operating innovative, export-oriented companies in the vicinity of the given „pole" city, and associated with the same industrial sector. The aim of this first stage of accreditation was not immediate, direct financial support; the objective of awarding the „Accredited Innovation Cluster" title is to serve as a basis for funding in a wide range of support measures under national, and EU-funded schemes (most notably several Operational Programmes of the New Hungary Development Plan 2007-13), as there

[7] See Inno policy trendchart: http://proinno.intrasoft.be/index.cfm?fuseaction=wiw.measures&page=detail&id=9550&CO=20&CAT=29

will be specific measures (with a total allocation of several billion EUR) solely for the purpose of funding and strengthening accredited clusters.

The first accredited innovation clusters altogether involve 160 SMEs, representing 77% of the total membership. A wide range of science and technology HEIs, and institutes of the Hungarian Academy of Sciences is also involved directly or indirectly in the various co-operations.

By 2010, the accredited innovation clusters are expected to develop up to 100 new innovative products and services, primarily in the most export-oriented and innovative sectors of the Hungarian economy, such as biotechnology, pharmaceuticals, ICT, but also some of the traditional industries with the potential of entering international markets.

Eligible costs include:

Labour costs (including overheads); Infrastructure (buildings); Equipment; External expertise (consultants, studies, etc.); Other Intangible assets, licences, marketing costs, service costs related to construction of infrastructure, costs of R&D commissioned from third parties.

3.18.3 Level (Macro-, Meso- or Microlevel)

Micro level of project-firms and mesolevel of regional clusters.

3.18.4 Main Goals

The main objective is to encourage joint innovation activities and generate projects (product and technology development) and the market introduction of the results.

The objective of the accreditation process, carried out by an office and a board specifically charged with this task, was to identify the most competitive clusters, the performance and efficient cooperation of which had been proven during the course of at least one year.

3.18.5 Target group

The target group of this measure are the so-called accredited clusters, which have gone through a selection and accreditation process and have thus become entitled to apply for specifically dedicated schemes, such as this one.

Eligibility is restricted to project-firms founded for the sole purpose of implementing the project by at least 3 independent owners belonging to the same so-called accredited cluster (see above). No single member may have more than 50% of votes. Cluster members must have at least 74% of the voting rights.

3.18.6 Initiator

National Development Agency

3.18.7 Implementer

The scheme is managed by the Managing Authority for the Central Hungary and Economic Development Operational Programmes within the National Development Agency. The intermediary organisation, the Hungarian Economic Development

Centre (MAG Zrt.) performs a number of administrative tasks related to the application process, monitoring etc.

3.18.8 Partners

The Pole Programme Office is the main coordination body of the Pole Programme and it is also responsible for the successful development of the Programme. Since the measures of the Pole Programme are in various operational programmes a major challenge during the implementation of the Programme is the coordination of the institutional actors (managing authorities, ministries, intermediary bodies, etc.), the coordination of the call for tenders, and the coordination of the processes of project selection and monitoring.

3.18.9 Budget

Overall budget in EUR 200,000,000 concerning the period 2007-2013

Co-financed by the Structural funds (ERDF, ESF,etc.)

3.18.10 Impact/results

The beneficiary shall provide indicators on a regular basis based on which progress can be monitored. The specific indicators for each project are set forth in the grant agreement. The 2007-2008 Action Plan of the Economic Development Operational Programme defines the following indicators: - BERD by beneficiary companies should increase by EUR 2b in 2008. - Number of new R&D jobs created as a result of the scheme: 20 in 2008. - Number of new RDI service jobs created as a result of the scheme: 20 in 2008.

3.18.11 Evaluation results, success factors, bottlenecks

The scheme itself has not been evaluated. However, two ex-ante evaluations have been carried out in relation to the Community Support Framework for 2007-2013 in relation to innovation promotion: one for assessing horizontally the New Hungary Development Plan across its OPs (stating that there is a trade-off between its measures and STI) and one for explicitly evaluating the EDOP as such, but the accredited innovation clusters are not dealt with in that report.

3.18.12 Sustainability

The current scheme is scheduled to run until 2013.

3.18.13 Transferability

Unknown, but the context of Hungary may be closer to that of the WBC-region than for many other countries.

3.18.14 Why select scheme as good practice?

Because of interest from WBC-region in cluster policy and the limited distance to the Hungarian context.

3.18.15 Contact

National Development Agency

http://www.nfu.hu

3.18.16 References

- Inno policy trendchart: http://proinno.intrasoft.be/index.cfm?fuseaction=wiw.measures&page=detail&id=9550&CO=20&CAT=29
- Website: http://www.nfu.hu/doc/4

The **COMET projects** get a strategic orientation by developing lasting profiles in the medium-term, including:

AAP - Advanced Audio Processing, Styria

ECV - Embedded Computer Vision, Vienna

e-motion - e-Motion – Research in ICT for the tourism, sport and leisure industries, Salzburg

holz.bau - holz.bau forschungs gmbh – Das Kompetenzzentrum für Holzbau und

Holztechnologie, Styria

MacroFun - BioEngeneering of Macromolecules, Styria

MPPF - Multifunctional Plug & Play Facade, Styria

FB | Donau-Universität Krems, Lower Austria

HFA-TiMBER | Holzforschung Austria, Vienna

Textiles | Technologiezentrum Ski- und Alpinsport GmbH, Tyrol

ZPT | FH UPPER AUSTRIA Forschungs und Entwicklungs GmbH, Upper Austria

AdvAluE | Advanced Aluminium Applications within ECO Transport | Upper Austria

AIR | Advanced Interface Research | Vienna

APMT | Advanced Polymeric Materials and Process Technologies | Upper Austria

BioPersMed | Biomarkers for personalized medicine in common metabolic disorders | Styria

ECO-PowerDrive | Emission- and Fuel Consumption Reduction for Two-Wheeler and Small

Engine Applications | Styria

FFT | Future Farm Technology | Lower Austria

IPOT | Intelligent Photovoltaic mOdule Technologies | Carinthia

JOIN4+ | Network of Excellence for Joining Technologies JOIN 4+ | Styria

The applications are evaluated and selected according to defined quality criteria in a competitive process by a jury consisting of internal and external experts. All applications for the COMET Programme have to be submitted electronically via eCall as well. Result of the evaluation of the short application is a recommendation of Panel 1 naming the consortia that should be invited to submit a full application.

Applications from existing centres that are not invited are examined according to their eligibility towards a phasing-out.

Panel 2 results in a recommendation for funding for all three programme lines. The jury for Panel 1 consists of nine voting members; each organisation involved in the evaluation of applications (FFG, FWF and CDG) nominates three of them. This ensures a balance between national and international experts form science and industry. The chair person is nominated by FFG.

The jury for Panel 2 is completed by three experts of international renown and consists therefore of a total of 12 voting members. Both panels allow for more participating than voting members. The participation of representatives of the Austrian federal states is equally possible in both panels.

The submitted full proposals are subject to an internal as well as external evaluation. The external evaluation is coordinated by FWF and CDG and carried out by international experts. The internal evaluation is carried out by FFG. The funding decision is prepared by a jury consisting of 12 members. Basis to this decision are peer reviews of the applications as well as hearings with the applicants.

3.18.17 Sustainability

The first competence centres programme dates from 1998 and is still a successful scheme.

3.18.18 Transferability

Several years ago Competence centres were among the most popular schemes for diffusion. The Swedish competence centres date from the same period. The competence centres in Estonia are of more recent date.

3.18.19 Why select scheme as good practice?

The programmes are internationally recognised as Best-Practice models. It could serve the expressed need in the WBC region to improve the Science – Industry linkages and better serve the needs of the concerning societies in the region. Moreover, the scheme is recognised as a good practice among the ERA policy instruments because of the international aspect. This suggests that it can also be a good tool for cooperation among WBC.

3.18.20 Contact

Otto Starzer (programme leader) Tel: 05/7755-2101, otto.starzer@ffg.at

Anna Tropper (programme manager), Tel: 05/7755-2106, anna.tropper@ffg.at

3.18.21 References

http://www.ffg.at/en/comet-competence-centers-excellent-technologies

3.19 Regional University Knowledge Center for Environmental - and Nanotechnology (Hungary)

3.19.1 Regional framework

Actively engaging in research and development (R&D) is the only way for Hungarian enterprises to achieve a significant improvement in market competitiveness. The Regional University Knowledge Center for Environmental- and Nanotechnology integrating the knowledge-base of environmental and material sciences in the South Great Plain Region of Hungary offers cooperation both for large companies ready for cooperative research and also for SMEs that do not have their own scientific research capacities.

3.19.2 Description

Improve the South Plains region's quality of life by the integrated systems development, from 1th January 2006 to 31th December 2008, as a bottom-up approach, and permanent intervention.

3.19.3 Level (Macro-, Meso- or Microlevel)

Meso level.

3.19.4 Main goals

In order to improve the quality of life, our goal is to advance the market utilisation of applied researches and to contribute to knowledge-based economic development. By achieving these goals, a huge investment potential can be concentrated in the South Great Plan Region in Hungary in 9-10 years.

Our primary mission is to meet the R&D requirements of our industrial partners. The Knowledge Center’s management organisation offers a wide range of quality services for the University of Szeged as well as for our partners involved in the cooperative activities of R&D and innovation.

3.19.5 Target group

The Regional University Knowledge Center for Environment and Nanotechnology aim at five directions of research, environmental technology, nanotechnology, energy resources, health care and information technology in the field of research and development activities resulting from combining the results.

The cooperation offered by Regional University Knowledge Center for Environmental - and Nanotechnology contributes to the strengthening of competitiveness of technology-intensive enterprises and newly established spin-off companies by applying the latest R&D results and finding new ways of application for new technologies and well-known methods.

3.19.6 Initiator

The programme was initiated by the National Office for Research and Technology (NORT) to promote the industrial and academic cooperation. After this, the University of Szeged was established in consortial form as the Regional University Knowledge Center for Environmental and Nanotechnology with the industrial partners.

In our globalised world, success in business requires constant structural renewal and implementation of new forms of cooperation. Awaking this, University of Szeged has procreated the Regional University Knowledge Center for Environmental - and Nanotechnology which – by its management organisation – will be able to develop cooperative relationships beneficial to every stakeholder in the fields of environmental technology, health care and informatics by utilising the intellectual key competences and resources of the region.

3.19.7 Implementer

The Regional University Knowledge Center for Environmental - and Nanotechnology was established by the University of Szeged, with the financial support of the National Office for Research and Technology (NORT) in 2005. The consortium was established to implement the programme, led by the University of Szeged. The Knowledge Centre's overall technical strategy determined by the region's outstanding scientific schools, the availability of infrastructure and scientific background of the region's small and medium enterprises development opportunities, as well as modern trends in research and development.

3.19.8 Partner

University of Szeged

Axiál-2000 Lighting Technology Ltd.

Árpád-Agrár Inc.

Bay Zoltan Applied Research Public Endowment

Corax-Bioner Inc.

Geohód Ltd.

Hologén Environment Protection Ltd.

Kaloplasztik Plastic and Rubber Industrial Ltd.

Phoenix Rubber Industrial Ltd.

Unichem Chemical Industrial and Service Ltd.

3.19.9 Budget

1.649.264.000 Ft, (ca. 4.4 mio. €)

3.19.10 Impacts/results

Table 5: Achievements and indicators (2006-2008)

Achievements, indicators	2006	2007	2008	**Total**
Significant issues of the project				
Number of developed				
products	3	3	4	**10**
services	-	8	3	**11**
technology	3	5	4	**12**
utility	3	3	1	**7**
prototype	3	4	7	**14**

Number of patents submitted in Hungary PCT submitted abroad	- - -	3 1 2	1 - -	**4** **1** **2**
Scientific issues				
Publications (incl. presentations and lectures) in Hungarian language (number x impact factor) in foreign languages (number x impact factor)	2 41,3	- 70,81	- 116,1	**2** **228,21**
Theses Ph.D. Doctor of the Hungarian Academy of Sciences	2 -	8 1	4 -	**14** **1**
Has the project stimulated new international projects?	Yes	Yes	Yes	**Yes**
Economic utilisation				
Number of organisations cooperating in the centre as Research institute/centre Enterprise Number of new enterprises	13 4 -	7 9 1	2 4 -	**22** **17** **1**

3.19.11 Evaluation results, success factors, bottlenecks

The Knowledge Center can include the results of a successful partnership, the relevant research base and develop new research areas.

The special financing of the consortium, however, and many other obstacles were put in front of the implementation. The consortium leader was a governmental actor. The programme was not part of a long term Research and Development strategy but a rather short-term and limited measure. The lead beneficiary works and has financial tasks under its responsibility; therefore subcontractor partners may be involved in the research cooperation which can contribute to a better success.

3.19.12 Sustainability

The programme ran for a fixed period. Since then, self-sustaining works of established industrial relations research continues to operate successfully, to manage research collaborations and generating deals, non-profit basis.

3.19.13 Transferability

The Knowledge Center continues to operate as the Research Management Center of the University of Szeged's Directorate for Research Development and Innovation. Because of the unique conditions of funding, we do not recommend this method of organising a similar way to implement; other ways of financing should be sought.

3.19.14 Contact

University of Szeged, Regional University Knowledge Center for Environmental and Nanotechnology, H-6720 Szeged, Dugonics tér 13. Phone: +36-62-546-958

info@knret.u-szeged.hu; www.knret.u-szeged.hu

3.20 Szeged Neurobiological Knowledge Centre (SNKC, South-Plain/Hungary)

3.20.1 Regional framework in which the instrument is implemented

3.20.2 Description

The strategic aim of SNKC was to provide the core for a life science cluster of the region. It was supported by a grant (Pázmány Péter grant) of the Found for Innovation so it was a top-down project. The supported period was between the years 2005-2009 but the SNKC continue the research projects. The SNKC was the first knowledge centre in Hungary having an Incubator Building.

3.20.3 Level (Macro-, Meso- or Microlevel)

Meso-level

3.20.4 Main goals

- SNKC wishes to exert its R&D activity characterised by a multidisciplinary approach and a wide range of professional diversity on a field that is strongly focused on applied neurobiological research, of aiming therapy holding forth applicable accomplishments, and is congruent with the interests of industrial partners.
- Our aim is to build up a neurobiological R&D cluster with the help of syndicate members coordinated by SNKC that performs partly self-supporting, market-oriented tasks, significant in the long run, and delineated along common strategic goals.
- Our special mission is the education and retention of the researchers who are able to make an intellectual break-through. We intend to establish - in every respect - an environment capable of domestic development for the talented scientist generation, who are the earnest of the future. We would like to provide carrier possibilities for the Hungarian researchers outside of our country, and also in respect of those scientists who intend to return from abroad.
- Our aim is to establish an infrastructural background comparable to world standard scientific potential in realisation of the projects in the field of modern functional genomics, proteomics, and the therapeutic aimed medicinal/chemical development.
- Our goal is to develop the scientists' approach towards the utilisation of the generated intellectual products, to provide them with the appropriate fundamentals of economics in order to become profitable, and to make the procreation of well-prepared spin-off enterprises possible, based on the research and development of the syndicate.
- Our goal is to make our neurobiological base of knowledge beneficial both in higher education and in postgraduate courses and to familiarise the South-

Plain region and the country with our attained accomplishments as soon as possible.

3.20.5 Target group

In short term: students, researchers

In medium term: pharmaceutical companies

In long term: patients suffering in neurological diseases

3.20.6 Initiator

University of Szeged

3.20.7 Implementer

University of Szeged

3.20.8 Partner

Pharmaceutical companies, innovative SME's and public bodies

3.20.9 Budget

2 mrd HUF (ca. 6,7 mio. €)

3.20.10 Impacts/results

Research Center and Incubating Building House: 1 (1300 sqm)

International Lectures: 481

Scientific publications: 300

Impact factor: 1116

Book chapters: 26

Books: 3

PhD theses: 29

Hungarian Academy of Sciences DSc awards: 4

Novel spin-off firm foundation: 5

Products: 25

Submitted patents: 13

Services: 33

Technologies: 32

Applications: 22

3.20.11 Evaluation results, success factors, bottlenecks

The results of the working groups are evaluated by the operative leaders every 3 months. Each subprogramme leader evaluates the R&D work of the working group of

the subprogramme every 6 months (Scientific results, patents, foundation of spin-off companies, and participation in any kind of project under FP6 or FP7).

3.20.12 Sustainability

The SNKC continues his work on neurobiology by grants and contract researches. We have 3 drug candidates with different mechanism and now we complete the preclinical studies of these molecules.

Grant applications on the R&D field are being continuously prepared. Two succesfull TAMOP grants help in the development of international cooperations and provide further employment for several young co-workers and PhD students. An increasing of the income is planned from 2009 on as well as the contract research activity. Also, versatile cooperation with pharmaceutical firms at national level and also abroad was started.

3.20.13 Why select scheme as good practice?

The SNKC was the first knowledge centre in Hungary. And established as a well functioning scientific center: SNKC became the starting point, the heart of a life science cluster in the region having an Incubator Building. Its main task was to organise the human side of the R&D work, to concentrate human resources. All of the relevant research groups of the City and the University were successfully incorporated into a common neurobiological research project.

3.20.14 Contact

Prof. Botond Penke: pbotond@mdche.szote.u-szeged.hu (coordinator)

Csaba Papp (papp@dnt.u-szeged.hu) project manager

3.21 Voucher scheme for science-business cooperation (Bulgaria)

3.21.1 Regional framework in which the instrument is implemented

Similarly to many other EU member-states, a major challenge for Bulgaria is to achieve the objectives set in Barcelona by the European science ministers – reach an average level of 3% of GDP invested in research and more specifically to enable at least 2/3 of the total investment for R&D from private resources.

Why is this so in the context of the national science system?

Firstly, Bulgaria, until recently, lacked a strategic vision and stable financial policy as regards science development. The lack of clearly defined science priorities and commitment for annual growth of the public funding for science puts it in the situation of being a country severely “lagging behind” the average EU levels, with a permanent percentage of 0.48 % of GDP until 2009, and a declining trend for the three-year budget forecast – down to 0.3% of GDP.

Second is the unfavourable ratio of public to private investment. In Europe and the individual member-states the prevailing portion of the investment in science comes from the “non-government sector”. The largest share of private investment is

observed in the most developed European countries such as Germany, Finland, Sweden, Denmark, and France. In other countries such as Latvia, Malta, Greece, Estonia, etc. there is predominant funding for the "higher education" sector. Bulgaria has the least favourable structure of sectoral funding of science, which is characterised by a heavy weight of the government expenditure at the expense of the other ones. The funding of the HE sector is inadequate.

With the adoption of the National Research Strategy 2020, several measures envisage overcoming above shortcomings. Two specific measures are defined:

Measure 1. Stimulating the private sector's involvement in scientific activity.

The purpose is to have the business involved not only as a provider of direct investment but also as a beneficiary of scientific knowledge and products and a reliable partner in the knowledge triangle. The establishment of effective partnership between scientific organisations, universities and the business benefits all stakeholders in the process by providing them with new knowledge and skills and adds value to the economy.

Measure 2. Strengthening the integration of the knowledge triangle elements.

The purpose is to introduce schemes in support of the academy – industry relation; the staff demands of the business call for differentiation of the educational institutions academy and identifying on that basis those of them which will develop intensive scientific activity. The latter will guarantee the reproduction of a new scientific generation of the science and innovation system.

Two specific measures were operational in the last years supporting intensification of the links between academia and private sector: a voucher scheme supporting joint activities with SMEs, and joint academia-industry doctoral fellowships, both acknowledged as good practices.

3.21.2 Description

Both schemes were proposed by the Ministry of Education and Science and implemented through the National Science Fund. The competitions were annually announced and altogether 3 Programme cycles were implemented. Since 2010 the schemes were temporarily stopped due to some financial shortages and insufficient funds.

Also, the Ministry plans to develop an evaluation report upon the results achieved so far and to decide upon the future work programmes.

3.21.2.1 Voucher scheme

A pilot competition was launched in 2006, the so called "Voucher scheme", to support academia-business collaborative work for absorption from the business community of knowledge-intensive solutions.

The scheme is not resource-consuming but aims at improving innovation processes in firms (management innovation, product innovation, process innovation), to create conditions for full utilisation of modern scientific results from manufacturing plants and to support inter-institutional integration of enterprises with universities and public research organisations.

The schemes aim at:

- improving innovation processes in firms (management innovation, product innovation, process innovation);
- create conditions for full utilisation of modern scientific results from manufacturing plants;
- inter-institutional integration of enterprises with universities, research institutes of the Bulgarian Academy of Sciences, the Agricultural Academy and others;
- implementation of a direct dialogue to provide research services and support in innovation processes between SMEs and research.

The scheme was implemented via vouchers provided to the Universities and/or research organisations who should support innovation development/utilisation/ transfer, etc. to a certain partnering SME. Each collaborative team may benefit from maximum 3 vouchers per call cycle, each voucher costing 4000 €.

3.21.2.2 Joint industry-academia doctoral fellowships

The scheme was launched in 2007. The goal of this competition was to stimulate on the one hand the renewal of scientific potential by hiring young people, who will be engaged in scientific research work and on the other hand, the creation of an effective connection science-industry through the active participation of company structures at the writing of a doctoral dissertation. We shall give our support to activities aimed at the opening of labor market and the creation of connecting structures between universities, scientific organisations and business structures.

The competition was open to:

- Young scientists up to 35 years old, who are not doing postgraduate studies and are not appointed under a basic labor contract at higher schools and scientific organisations;
- Young scientists up to 35 years old, who work in a company structure.

Maximum grant was up to 50 000 € for 3 years.

3.21.3 Level (Macro-, Meso- or Microlevel)

Micro level

3.21.4 Main goals

- Making a direct dialogue targeting consigning scientific research services and support in the field of innovation processes between SME and the scientific research sector.
- Establishment of favourable conditions, so SME could use research intensive services.

3.21.5 Target group

SME’s in cooperation with PRO and UNI

3.21.6 Initiator

Ministry of Education and Science

3.21.7 Implementer

National Science Fund

3.21.8 Partner

N/A

3.21.9 Budget

120 000 € per annum for voucher scheme

100 000 € per annum for joint Ph.D scheme

3.21.10 Impacts/results

Immediate results/impacts: developing cooperation culture; initiating dialogue; providing support for meeting two sectors and for search of qualified services; support for young people working outside universities to continue their research education; encourage companies to hire qualified people.

3.21.11 Sustainability

The programme was temporarily closed due to decreasing funds, but will be renewed.

3.21.12 Why select scheme as good practice?

Both schemes are very simple and flexible for implementation. They do not require complex administrative and management teams and evaluations.

Develop real partnerships because they are focused on already available knowledge and experience and have very quick effects. The schemes are not resource-consuming simultaneously providing real reshaping in the pattern of cooperation between the sectors. It creates demands from the industry from one side and also provokes researchers to advertise what they can deliver.

3.21.13 Contact

Lora Pavlova: l.pavlova@mon.bg

4 Good practice examples in the Western Balkan countries

4.1 Business Incubator "Zrenjanin" (Serbia)

4.1.1 Regional framework in which the instrument is implemented

During the period when the initiatives on building 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 Municipality Zrenjanin. 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, so this was also one of the turning points that enabled the establishment of the incubator.

4.1.2 Description

The Business Incubator Zrenjanin was established by Vojvodina Investment Promotion –VIP and the municipality 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 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.

4.1.3 Level (Macro-, Meso- or Microlevel)

Microlevel

4.1.4 Main goals

- The goal of Business Incubator "Zrenjanin" is to support entrepreneurs during establishing 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, develop its human resources.
- Reduce unemployment and increase the attractiveness of Banat and Zrenjanin for foreign investors.

4.1.5 Target groups

entrepreneurs

4.1.6 Initiator

Vojvodina Investment Promotion Fund and Municipality Zrenjanin

4.1.7 Implementer

Municipality Zrenjanin

4.1.8 Partners:

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

4.1.9 Budget/Funding:

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

4.1.10 Impacts/results

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

4.1.11 Evaluation results: Success factors, bottlenecks

Based on earlier presented results, the Business Incubator Zrenjanin fulfilled its goals, it supported entrepreneurs during the establishment of their companies and their development. So far there were 21 companies established and 8 of them 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 of incubators that have international visibility. It is connected to the European Enterprise Network and gives its tenants the opportunity to present innovations on this network.

But there is 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 no sufficient and organized cooperation with R&D and the innovation community in Serbia.

4.1.12 Sustainability

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

4.1.13 Transferability

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

4.1.14 Why select scheme as good practice?

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

4.1.15 Contact

Bojan Ljutić, manager, Province of Vojvodina, http://www.en.biz-zr.rs/ ; ljuticb@biz-zr.co.rs

4.1.16 References:

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

4.2 Competition for Best Technology Innovation (Serbia)

4.2.1 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.

4.2.2 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 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. For all categories the two rounds are required. In the first round of competition, a summary

report has to be submitted via Internet. Candidates having passed 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 hundred reviewers evaluate applications, business and marketing plans.

4.2.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also on meso and microlevel)

4.2.4 Main goals:

- The Competition for the Best Technology Innovation aims at promoting the 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.

4.2.5 Target group

Potential and existing high-tech entrepreneurs

4.2.6 Initiators:

- Ministry of Science and Technological Development and
- Faculty of Technical Science, Novi Sad

4.2.7 Implementer

Faculty of Technical Science, Novi Sad

4.2.8 Partner

Faculty of Technical Science, Novi Sad

4.2.9 Budget/Funding:

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

4.2.10 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 of the research sector on the one hand and of 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.

4.2.11 Evaluation results: Success factors, bottlenecks

The project Competition for Best Technology Innovation is one of the most attractive approaches of the government to promote the 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 in Serbian language, which could be a bottleneck for the promotion of innovations and the whole competition abroad and at regional level. One of the recommendations could be that at least some parts of the contest should be in English language. For example the awarded finalists should have presentations of their innovations in English and also the website of the whole contest should be translated in English.

During the competition phase, and specifically the presentation of innovations, the awarding committee consists of competent researchers and of business people contributing with additional expertise in the final stage of the competition. With additional both 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 which is 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.

4.2.12 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 MSTD's 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 an adequate monitoring and assessment of the effectiveness and performance of the competition.

4.2.13 Transferability

Simple as that! 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.

4.2.14 Why select scheme as good practice?

As it was said the project Competition for the Best Technology Innovation is one of the most attractive approaches of 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.

4.2.15 Contact

Prof Vojin Šenk, PhD; Faculty of Technical Science, Novi Sad; vojin_senk@uns.ac.rs http://www.inovacija.org/

4.3 Grant Scheme – Project for Supporting the Development of Competitiveness of SMEs and Innovation (Serbia)

4.3.1 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 achieving economic growth, employment, development of modern infrastructure, building and strengthening partnerships for the sake of a 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 as well as for the evaluation of their work. By carrying out surveys and analyses, NARD, in cooperation with partners at the regional level, identifying 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 to start their own business, promoting knowledge-based economy through special programmes to support innovation and competitiveness, support the economic development of tailor-made environment, improvement of business infrastructure (business incubators, industrial zone), cluster development and internationalization of Serbian small and medium enterprises.

The key area 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.

4.3.2 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).

4.3.3 Level (Macro-, Meso- or Microlevel)

Macrolevel, Mesolevel, Microlevel

4.3.4 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
- to develop the culture of investing in innovation among the entrepreneurs,
- to establish the linkages between the SMEs and R&D institutions and centres of knowledge;
- to increase the number of the SMEs that invest in innovation;

- An additional aim was to raise the income based on export activities.

4.3.5 Target group

Competitive and innovative SMEs

4.3.6 Initiator

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

4.3.7 Implementer

National Agency for Regional Development

4.3.8 Partner

National Agency for Regional Development

4.3.9 Budget/Funding

The grant awarded under this programme will cover up to 50%, maximum up to RSD1.5m (€ 10.5 thousand) of 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 the public sources and donations.

Total available budget from public funds is RSD60m (0.6 mio. €) in 2011.

4.3.10 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 grant scheme was 20% while after the grant scheme, it raised by some 3-4%.

4.3.11 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 be 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 companies in the inability to obtain a wider range and greater number of innovation activities. In this aspect, 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.

4.3.12 Sustainability

This programme is a regular yearly activity of the 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.

4.3.13 Transferability

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

4.3.14 Why select scheme as good practice?

Positive evaluation that showed that grant scheme has achieved their goals is reason to select it as good practice.

4.3.15 Contact

Milena Vasić, NARD, milena.vasic@narr.rs

For further information – website:
http://www.narr.gov.rs/Lists/Stranice/ViewPage.aspx?ID=17 (in Serbian language)

4.4 Vojvodina ICT Cluster (Serbia)

4.4.1 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 from 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 republic levels in Serbia.

4.4.2 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 the 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 service 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 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.

4.4.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also on meso and microlevel)

4.4.4 Main goals:

- Strengthening and positioning of the association as the relevant institutions in Serbian ICT industry
- Securing 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

4.4.5 Target group:

Existing and new high tech companies

4.4.6 Initiators:

Private companies from the ICT sector in Novi Sad, Serbia

4.4.7 Implementer:

The Vojvodina ICT Cluster business association, Serbia

4.4.8 Partner:

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

4.4.9 Budget/Funding:

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

4.4.10 Impacts/results (until end of 2011)

- Number of members increase from 17 to 28 (honorary members from 3 to 6)
- Established working relations with:
- governmental institutions at provincial and republic 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 SME
- Organised series of round tables as a part of lobbying activities

- Organised one international conference with b2b
- Organised a series of events aimed at popularisation of IT professions with 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

4.4.11 Evaluation results: Success factors, bottlenecks

From its origin, VOICT attracted enough attention among the companies in domestic ICT sector to boost the number of companies significantly. It also managed to shed more light and induce more interest for clustering in Serbia in general. More future results regarding benefits for members may further increase 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 a verge to become a strong lever for further development of ICT and other sectors in Vojvodina and Serbia. 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.

4.4.12 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.

4.4.13 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 establishment of clusters in Serbia.

4.4.14 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.

4.4.15 Contact

Milan Šolaja, M.Sc., Chief Executive Officer, phone: +381 63 644 033, milan.solaja@vojvodinaictcluster.org

web: www.vojvodinaictcluster.org

4.5 RAZUM - Seed Capital Programme (Croatia)

4.5.1 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.

The “Science and Technology Policy” is 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 the increasing investments into research and development and 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.

4.5.2 Description

The **RAZUM programme - *Development of Knowledge-Based Companies*** has been operating from 2001 until 2006 under BICRO’s management. The characteristic of the procedures at that time were that too much emphasis was given on the 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 for 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 they 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 grant 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 this procedures and conditions, RAZUM has funded 22 innovative projects and placed close to 15 mio. € (total amount of committed funds under the RAZUM programme since 2007) of seed capital in SMEs for R&D activities.

4.5.3 Level (Macro-, Meso- or Microlevel)

Macro level (National)

4.5.4 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

4.5.5 Target group

SMEs

4.5.6 Initiator

Business Innovation Center of Croatia (BICRO)

4.5.7 Implementer

BICRO

4.5.8 Partner

4.5.9 Budget/Funding

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

4.5.10 Impacts/results

The RAZUM programme

- 135 outline applications and 40 full applications received
- 22 projects contracted with a total value of 21,9 mio. €
- 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 3,42 mio. € in 2010
- In 2010 the total income of companies financed through RAZUM was 33,8 mio. €

4.5.11 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 motifs 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)

4.5.12 Sustainability

4.5.13 Transferability

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

4.5.14 Why select scheme as good practice?

A proven track record and long-term experience

4.5.15 Contact

Ivo Friganović, BICRO, Senior Executive Director for Innovation, ivo.friganovic@bicro.hr

Ivana Čuljak, BICRO. Head of department for Innovation, ivana.culjak@bicro.hr

4.6 Proof of Concept Grant Fund (Croatia)

4.6.1 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.

4.6.2 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 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.

4.6.3 Level (Macro-, Meso- or Microlevel)

Macro Level

4.6.4 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

4.6.5 Target group

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

4.6.6 Initiator

Business Innovation Center of Croatia – BICRO Ltd.

4.6.7 Implementer

BICRO and Recognized Offices from Zagreb, Split, Rijeka, Osijek, Varaždin and Čakovec administer the Fund, help with projects preparation and monitoring.

4.6.8 Partner

4.6.9 Budget

Grants between 5.00 € and 50.000 € are available, with applicants expected to provide match funding of 25% of the total project costs.

4.6.10 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 the total value of 2,5 mio €;
- 29 patent applications, 19 technical feasibility demonstrations and 40 prototypes have been realised through the PoC so far.

4.6.11 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

4.6.12 Sustainability

The PoC is a programme that is definitely needed in Croatia, 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 from the budget availability. BICRO constantly seeks for Partners to co-finance PoC program. Therefore, negotiations with some Croatian companies and Counties are underway.

4.6.13 Transferability

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

4.6.14 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.

4.6.15 Contact

Svjetlana Bušić, Head of department for Competitive researches, BICRO,
http://www.bicro.hr e-mail: svjetlana.busic@bicro.hr

4.7 TECHRO – Development of the infrastructure for technology development (Croatia)

4.7.1 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.

4.7.2 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 the investment funds from state and local level, backed by 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.

4.7.3 Level (Macro-, Meso- or Microlevel)

Macro level (National)

4.7.4 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

Expected outcomes and programme effects

- More effective commercialisation of research results
- 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

4.7.5 Target groups

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

4.7.6 Initiator

Business Innovation Center of Croatia (BICRO)

4.7.7 Implementer

BICRO

4.7.8 Partners

4.7.9 Budget/Funding

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

4.7.10 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 academic community, with a total of 1677 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 incubates; 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.

4.7.11 Evaluation results: Success factors, bottlenecks

- Average time for project preparation is between 12 and 25 months
- Total value of funded projects exceeds 21,9 mio. €

- 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 have not 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

4.7.12 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.

4.7.13 Transferability

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

4.7.14 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.

4.7.15 Contact

Bojan Bajić, senior expert, BICRO, http://www.bicro.hr , e-mail: bojan.bajic@bicro.hr

4.8 TECHNOLOGY PARK ZAGREB (part of the Development Agency Zagreb – TPZ Ltd., Croatia)

4.8.1 Regional framework in which the instrument is implemented

The City of Zagreb as a 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, since1999, the City of Zagreb has been implementing the 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 2,9 mio. kunas (392.000 €),

4.8.2 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 technologies 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 their 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.

4.8.3 Level (Macro-, Meso- or Microlevel)

Microlevel

4.8.4 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

4.8.5 Target group

SMEs

4.8.6 Initiator

the City of Zagreb

4.8.7 Implementer

the City of Zagreb

4.8.8 Budget/Funding

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

4.8.9 Impacts/results

The Technology Park Zagreb at the moment houses 17 companies and 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 produce each year 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 innovation. The Technology Park Zagreb is one of the most successful technology parks in Central Europe.

4.8.10 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 incubator give opportunity for new jobs for young engineers and other well educated people.

Bottlenecks

Lack of cooperation with scientific institutions.

4.8.11 Sustainability

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

4.8.12 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.

4.8.13 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 Technology Park Zagreb as good practice case.

4.8.14 Contact

Development Agency Zagreb – TPZ Ltd. Marijan Ožanić, manager, m.ozanic@raza-tpz.hr ; www.raza-tpz.hr

4.9 Technology Park Varaždin (VA::TechPark)

4.9.1 Regional framework in which the instrument is implemented

In Varaždin County, the population was 184.769 in 2001, the Population density per km^2 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 manufacturing industry sector (40%), followed by trade (27%), construction (10%) and agriculture, hunting and forestry (9%). Measured by the share in employment, again economy is dominated by the manufacturing industry that 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 the 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.

4.9.2 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.

4.9.3 Level (Macro-, Meso- or Microlevel)

Mesolevel (Regional – North Croatia – Varaždin County)

4.9.4 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.

4.9.5 Target groups

Innovative entrepreneurs in ICT

Initiator:

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

4.9.6 Implementer

Technology Park Varaždin Ltd.

4.9.7 Partners

Faculty of Organisation and Informatics University of Zagreb

4.9.8 Budget/Funding:

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

4.9.9 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.

Table 6: Economic and financial analysis of VA::TP

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%

4.9.10 Evaluation results: Success factors, bottlenecks

Based on earlier presented results VA::TechPark fulfilled its goals.

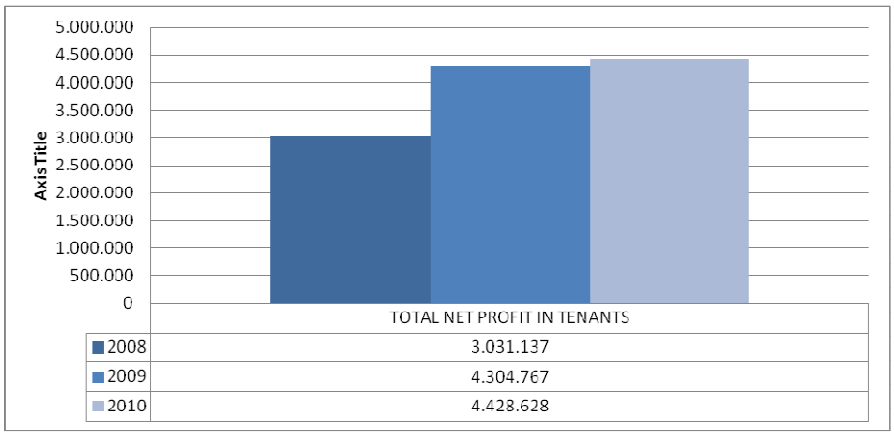


Figure 12: New employees (above) and total net profit (in HRK)

4.9.11 Sustainability

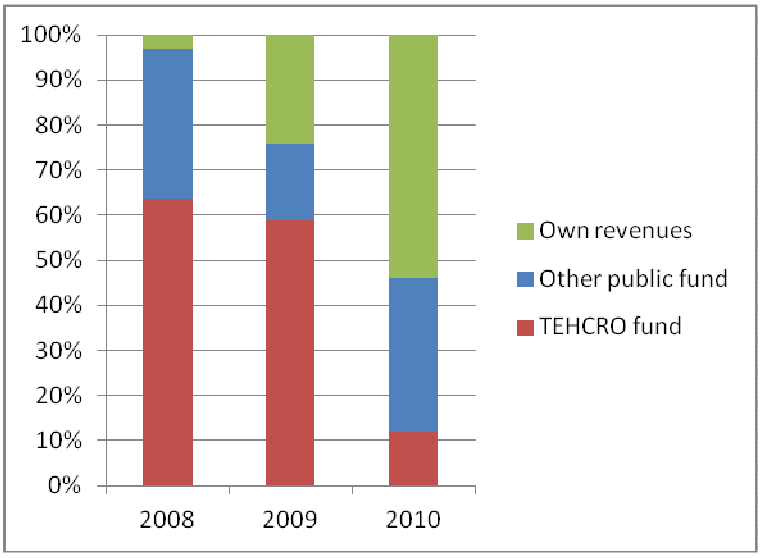


Figure 13: Revenues and funds

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

4.9.12 Transferability

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

4.9.13 Why select scheme as good practice?

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

4.9.14 Contact

Andrija Petrović, General Manager www.tp-vz.hr; info@tp-vz.hr

4.10 Business Incubator BIOS, Osijek (Croatia)

4.10.1 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 in mind the facts mentioned, a 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.

4.10.2 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 the 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 3000 m^2 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.

4.10.3 Level (Macro-, Meso- or Microlevel)

Microlevel

4.10.4 Main goals

- BIOS is established with the goal to increase the survival rate of start-up companies, especially the hi-tech oriented, and to decrease the 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.

4.10.5 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.

4.10.6 Initiator

City of Osijek

4.10.7 Implementer

City of Osijek

4.10.8 Partners

Center for Entrepreneurship, Osijek

4.10.9 Budget/Funding:

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

4.10.10 Impacts/results

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

4.10.11 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 also the possibility of adjustment of spaces in line with the tenants' growth.

4.10.12 Sustainability

With more than 3000 m^2 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.

4.10.13 Easy to transfer?

4.10.14 Why select scheme as good practice?

A proven track record

4.10.15 Contact

Tomislav Šerić, manager ; www.inkubator.hr; tseric@gmail.com

4.11 INNOVATION AND ENTREPRENEURSHIP CENTRE (IEC) at the University of Zenica (Bosnia and Herzegovina)

4.11.1 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.

4.11.2 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 the 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 of brochures, publications, books, pamphlets, proceedings and other materials, so the interested persons had the 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.

4.11.3 Levels (Macro, Medium or Micro level)

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

4.11.4 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 labor 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,

4.11.5 Target group

Students, professors, SME entrepreneurs …

4.11.6 Initiator

Academic staff at the University of Zenica

4.11.7 Implementer

Innovation and Entrepreneurship Centre at the University of Zenica

4.11.8 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

4.11.9 Budget/Funding

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

4.11.10 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, Lleda 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).

4.11.11 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 as possible students and teachers of the UNZE begin to think and work in entrepreneurial ways. In this sense, we have worked on the development of curriculum which would be offered within the study program to all faculties, and the curriculum is in 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.

4.11.12 Sustainability

There is no doubt that the biggest problem in the functioning of such center is the 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.

4.11.13 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.

4.11.14 Why select the scheme as a 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, our vision, mission and goals of development.

4.11.15 Contact

INNOVATION AND ENTREPRENEURSHIP CENTRE (IEC), UNIVERSITY OF ZENICA , Travnička ulica 1 , 72000 Zenica, Tel. +387 32 444 421 / Tel. +387 32 444 421 , info@cip.unze.ba , www.cip.unze.ba

Prof. dr. sc. Darko Petković, director; dpetkovic@mf.unze.ba

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4.12 Innovation Centre Banja Luka (Bosnia and Herzegovina)

4.12.1 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 based on this encouraging the start-up and development of innovative businesses.

*The Innovation Centre Banja Luka h*as 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.

4.12.2 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 support 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, certified internationally 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 Government of 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

4.12.3 Level (Macro-, Meso- or Microlevel)

Mesolevel

4.12.4 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 highly skilled workforce
- Promote Lifelong learning practices in BiH
- Contribute to information, knowledge and experience exchange within business community and between R&D institutions, universities and business sector
- Disseminate knowledge, business and innovation support models and services to remote underdeveloped areas of RS.

4.12.5 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 to commercialise the results of their researches
- Investors: Individuals or funds willing to invest in high-potential innovative business in development phase

Training center

- Listen
- Read phonetically
- entrepreneurs: individuals willing to improve their business skills and make themselves capable, competent and ready for new business challenges

- SMEs are interested to invest 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 professional capable to work in up-to-date public administration

4.12.6 Initiator

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

4.12.7 Implementer

Foundation “Innovation Centre Banja Luka”

4.12.8 Partners

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

4.12.9 Budget/Funding

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

4.12.10 Impacts/results

Through it 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

4.12.11 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 organisation of Competition for Best Technology Innovation on national level
- Partner in realisation of business TV show „My Business“

4.12.12 Sustainability

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

4.12.13 Transferability

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

4.12.14 Why select scheme as good practice?

ICBL, temporally organised as foundation, is a concept that is significantly wider than an “ordinary” business incubator, as it contains the 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 at one side, and improvement of the general profile of RS at the other. It also enhances capacities for utilisation of various developmental and pre-accession funds RS/BiH are eligible to within the context of the EU-membership candidacy.

4.12.15 Contact

Drago Gveric, Executive Manager, Innovation Centre Banja Luka, http://www.icbl.ba

e-mail: drago.gveric@icbl.ba, Phone: + 387 51 340 600

4.13 UNIVERSITY ENTREPRENEURSHIP CENTRE (University of Banja Luka)

4.13.1 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 environment, 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 of the universities on developing programmes of lifelong learning courses for industry which is based on the lack of information 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.

4.13.2 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. Upon now it is a permanent infrastructure at UBL and the staff is 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).

4.13.3 Level (Macro-, Meso- or Microlevel)

Micro level

4.13.4 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 labor 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.

4.13.5 Target group

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.

4.13.6 Initiator

University of Banja Luka

4.13.7 Implementer

University of Banja Luka

4.13.8 Partner

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

4.13.9 Budget

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.

4.13.10 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.

4.13.11 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, and their implementation is 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.

4.13.12 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.

4.13.13 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

4.13.14 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.

4.13.15 Contact

Univerzitet u Banjoj Luci; Bulevar vojvode Petra Bojovića 1A; Univerzitetski Grad; Univerzitetski preduzetnički center - UPC ; Milena Ljubičić - Project manager, +387 51 340 102; + 387 65 767 010; milena.ljubicic@upcbl.com, www.upcbl.com

4.14 BIT Center Tuzla (Business Innovation and Technology, Bosnia and Herzegovina)

4.14.1 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 the 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 a well-developed coordination with local authorities and the University, which create a possibility to expand infrastructure, innovations and business.

4.14.2 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 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 Electro-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 m^2 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.

4.14.3 Level (Macro-, Meso- or Microlevel)

Macro

4.14.4 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.

4.14.5 Target group

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.

4.14.6 Initiator

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

4.14.7 Implementer

BIT Centre - Business innovation and Technology.

4.14.8 Partners

University of Tuzla

Municipality of Tuzla

SINTEF

SIVA

4.14.9 Budget

BIT Center - Business Innovation and Technology, is funded by own activities and partly funded by the Local authority.

4.14.10 Impacts/results

- The BIT Center has been operating for six years now with two employed people and with a big network of incubator professionals.
- In the last four years, the BIT Center has 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 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 graduated students of the Faculty of Electro-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 stipendium, and they survived first year.
- The BIT Center planned, implemented and maintained the first free WiFi network in Bosnia and Herzegovina in the city Center of Tuzla.

4.14.11 Evaluation results, success factors, bottlenecks

4.14.12 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 commercialisation of R&D projects comes.

4.14.13 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 how to develop this system phase by phase from ICT incubator to a technology park.

4.14.14 Why select scheme as good practice?

The BIT Center could be an excellent example on 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.

4.14.15 Contact

Robert Martić, Director; Address: Trg slobode 16, 75000 Tuzla, Bosnia and Herzegovina, Telephone: +387 35 304 650; Fax: +387 35 258 280

Mail: info@bit.ba, robert@bit.ba; www.bit.ba

4.15 The research laboratory for the production of *Pleurotus* mycelium (Albania)

4.15.1 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 the 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.

4.15.2 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 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.

4.15.3 Level (Macro-, Meso- or Microlevel)

Meso-level

4.15.4 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 applicative research.

4.15.5 Target Groups

Respective sector entrepreneurs

4.15.6 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.

4.15.7 Implementer

Agricultural University of Tirana

4.15.8 Partners

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

4.15.9 Budget/Funding

Governmental funds - Agency for Research Technology and Innovation

4.15.10 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.

4.15.11 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.

4.15.12 Sustainability

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

4.15.13 Transferability

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

4.15.14 Why select scheme as good practice?

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

4.15.15 Contact

Prof. Dr. Jordan MERKURI; E-mail: j_merkuri@hotmail.com, jordanmerkuri@gmail.com

4.16 Industrial olive sapling production and intensive olive cultivation (Albania)

4.16.1 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.

4.16.2 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 the 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.

4.16.3 Level (Macro-, Meso- or Microlevel)

Microlevel

4.16.4 Main goals

- This project is part of the National Research & Development Programmmes, its main goal is planting an area of 40ha 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 resource.

4.16.5 Target groups

Entrepreneurs

4.16.6 Initiator

Agricultural University of Tirana

Horticulture, Plant Production and Plant Protection Department

4.16.7 Implementer

Agricultural University of Tirana

4.16.8 Partners

- Ministry of Agriculture and Food
- Technology Transfer Center – Vlora.

- Technology Transfer Center - Fushe-Kruja

4.16.9 Budget/Funding

Governmental funds – Agency for Research Technology and Innovation

4.16.10 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.

4.16.11 Evaluation results: Success factors, bottlenecks

The project has achieved all its main objectives. Olive sapling production plant inside the AUT has a production capacity of 500.000 saplings/year from the best native cultivars.

Through the use of the innovative technology the production time has shorten to 2 years from 4-5 years needed by applying the classic technology. The sapling cost of production has been reduced twice, this will lower the cost of new plantations. Sapling derived from this technology enter production earlier, facilitating new start-ups in the sector.

4.16.12 Sustainability

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

4.16.13 Transferability

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

4.16.14 Why select scheme as good practice?

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

4.16.15 Contact

Prof.Dr. Fadil THOMAJ; Zv. Dekan për shkencën, Fakulteti i Bujqësis & Mjedisit, UBT.; E-mail: fadilthomaj@hotmail.com

4.17 Sustainable Agriculture in Albania (SASA Project, Albania)

4.17.1 Regional framework in which the instrument is implemented

The Institute for Organic Agriculture was born from the Organic Agriculture Movement of Albania which has 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 are developed such as Institute of Organic Agriculture, Farmer Association for Organic Products (BioAdria), 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.

4.17.2 Description

Organic agriculture is an agricultural system that uses material unharmful for the consumers and the environment in general; it harmonises the economical, 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.

4.17.3 Level (Macro-, Meso- or Microlevel)

Macro level - micro level

4.17.4 Main goals

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

4.17.5 Target groups

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

4.17.6 Initiator

Institute of Organic Agriculture (IOA)

4.17.7 Implementer

Institute of Organic Agriculture (IOA)

4.17.8 Partners

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

4.17.9 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.

4.17.10 Impacts/results

- Increasing of the technical level of specialists and farmers
- increasing of the number of organic farmers, organic productions
- Increasing of the 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.

4.17.11 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 the demand by the European customer is asking them.. Finally, the Institute is the representative of the Balkan network for biological agriculture.

4.17.12 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 key supporter during 2012. Long-term sustainability will depend on the market and due time financing.

4.17.13 Why select scheme as good practice?

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

4.17.14 Contact

Prof.As. Dr.Enver Isufi; enver_isufi@yahoo.com; info@ibb.al, www.ibb.al

4.18 Incubator "Inventivnost" (Montenegro)

4.18.1 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 first ICT incubator in Montenegro and as a support centre for small and medium-size 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.

4.18.2 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. Incubator helps new small innovative companies - members of incubators, in elimination of beginner's difficulties and the successful development of private business.

4.18.3 Level (Macro-, Meso- or Microlevel)

Micro-level and meso-level

4.18.4 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 start-up companies

4.18.5 Target groups

entrepreneurs

4.18.6 Initiator

The Government of Montenegro and Municipality Podgorica

4.18.7 Implementer

The Municipality Podgorica

4.18.8 Partners

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

4.18.9 Budget/Funding:

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

4.18.10 Impacts/results

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

4.18.11 Evaluation results: Success factors, bottlenecks

In the past, the Incubator Inventivnost conducted a series of activities aimed at further promoting this project in the country 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 positively, although the crisis affected the market.

Based on earlier presented results, the Incubator Inventivnost fulfilled its goalshaving international visibility. The Business Incubator Inventivnost became in 2009 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 World Bank.

4.18.12 Sustainability

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

4.18.13 Transferability

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

4.18.14 Why select scheme as good practice?

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

4.18.15 Contact

Velibor Boskovic, manager; Drugog crnogorskog bataljona A 8

www.inventivnost.me e-mail: velibor_boskovic@yahoo.com

4.19 The Research and Development Service Centre (R&D SC) at the University of Montenegro

4.19.1 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 common plan, rules and procedures on improvement of research performances. 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.

4.19.2 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 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.

4.19.3 Level (Macro-, Meso- or Microlevel)

Micro-level and meso-level

4.19.4 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 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.

4.19.5 Target groups

University of Montenegro, national government agencies, local companies

4.19.6 Initiator

University of Montenegro

4.19.7 Implementer

University of Montenegro

4.19.8 Partners

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

4.19.9 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.

4.19.10 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.

4.19.11 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.

4.19.12 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.

4.19.13 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.

4.19.14 Contact

R&D Service Centre, Mrs. Tatjana Knežević, Mr. Vladimir Jaćimović,

Tel: +382-20-414-248; E-mail: rdcentar@ac.me; Web: www.rd.ac.me

4.20 Innovation Centre Kosovo (ICK, Kosovo under UNSCR1244)[8]

4.20.1 Regional framework in which the instrument is implemented

During the period when the initiatives on building necessary innovation infrastructure were discussed, Kosovo had neither incubator nor innovation centre. A recent initiative of 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.

4.20.2 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.

4.20.2.1 ICK Services

Incubator Services

[8] (under UNSCR1244); this applies where Kosovo is stated in this report

- 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.

4.20.3 Level (Macro-, Meso- or Microlevel)

Macro, Meso and Microlevel

4.20.4 Main goals

- The goal of ICK is to support entrepreneurs during establishing 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.

4.20.5 Target groups

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

4.20.6 Initiator

Kosovo ICT Association (STIKK)

4.20.7 Implementer

STIKK and Athene Prosjektledelse

4.20.8 Partners

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

4.20.9 Budget/Funding:

- MFA Norway
- STIKK

4.20.10 Impacts/results

Expected to support and facilitated start-up companies in boosting innovation

4.20.11 Evaluation results: Success factors, bottlenecks

Although this centre has recently been established, the research and contacts with companies conducted by STIKK showed 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.

4.20.12 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.

4.20.13 Transferability

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

4.20.14 Why select scheme as good practice?

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

4.20.15 Contact

Vjollca Cavolli, STIKK, vcavolli@stikk-ks.org

Gry Helene Stavseng, Athene Prosjektledelse, gry@athene-prosjekt.no

4.21 National Center for Development of Innovation and Entrepreneurial Learning (NCDIEL, FYR of Macedonia)

4.21.1 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.

4.21.2 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 orientated 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 activities continue with provision of seed capital for start-ups, counseling and coaching of the established companies, all in direction of strengthening the capacities of newly established companies to successfully sustain and grow on the market.

4.21.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also on meso and microlevel)

4.21.4 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 entrepreneurial spirit among the population,
- To facilitate understanding of innovation as a way how our society changes and improves,
- To spread acceptance that innovation is the way we do business, the way we work, the options we choose as consumers and citizens,
- To support the preparation of feasibility studies and foundation 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 FYRofMacedonia (innovation related diligence, staffing support for engineers, local partner search, etc.)
- To provide technical support to the SME policy makers.

4.21.5 Target group:

- 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

4.21.6 Initiators

Staff from Faculty of Mechanical Engineering

4.21.7 Implementer

Staff from Faculty of Mechanical Engineering

4.21.8 Partner

- 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
- Economic Chamber of Macedonia
- Economic Chamber of Northwest Macedonia
- Faculty of Mechanical Engineering, Ss. Cyril and Methodius University
- Centre for Research, Development and Continuous Education

4.21.9 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.

4.21.10 Impacts/results (until end of 2011)

- Support to establishment of 40 start-up companies
- Collected more than 1.200 business ideas for 5 cycles of business plan competition
- Trained more than 3.000 persons on different topics
- Awarded more than 50.000 € of seed capital
- Analysis of the private sector innovation activities, for the need of OECD Regional Competitive Initiative project: Developing Innovation Policy for 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 Balkan 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 – 5th - 7th May 2011, Ohrid, F.Y.R. of Macedonia (under the auspice of H.E. Dr. Gjorge Ivanov, the President of the Republic of Macedonia, and in partnership with the European Academy of Sciences and Arts, Macedonian Academy for Sciences and Arts and European Council for Small Business and Entrepreneurship) – www.iceird.org/2011/
- Organisation of the National most innovative business plan competition, from 2007 - 2011
- Organisation of the National best business plan competition for high schools in F.Y.R. of Macedonia, from 2008 - 2011
- Promotion and support in development of Craftsmen strategy for F.Y.R. of Macedonia, January 2011
- Implementation and promotion of the European Innovation Scoreboard in F.Y.R. 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 F.Y.R. of Macedonia
- Microsoft Networking Partner for BizSpark program (IT Microsoft software support to start-up businesses in F.Y.R. 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 F.Y.R. of Macedonia)
- Realisation of the survey on Women entrepreneurship in F.Y.R. 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, F.Y.R. 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 Ministry of Defence and funded by Kingdom of Norway and Denmark
- Development of online curricula and teaching materials on Entrepreneurship and Small business management for 4 the biggest Universities in F.Y.R. of Macedonia (within TEMPUS SCM project)

- Support to the Faculty of Mechanical Engineering for the creation of a Career Centre (with database of > 3000 CV's from students/graduates from engineering faculties)

4.21.10.1 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 survey on > 1700 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)

4.21.11 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

4.21.12 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 past experience already realised more than 20 international and national projects, current services and new service that NCDIEL is planning to develop in the near future, are a good base to for its sustainability. Furthermore, NCDIEL's close connection with the Faculty of Mechanical Engineering and Agency for the Promotion of Entrepreneurship is an additional guarantee for the long-term NCDIEL success.

4.21.13 Transferability

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

4.21.14 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 many valuable advice/suggestions to the state institutions. As an example, some of the NCDIEL projects/activities are becoming regular activities within state institutions, like:

- Implementation of 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 to student job fairs and career consulting (Agency for promotion of entrepreneurship), etc.

4.21.15 Contact

Prof. Dr. Radmil Polenakovik; phone: +389 2 3099 481 / 482,
e-mail: radmil.polenakovik@ncdiel.mk; web: www.ncdiel.mk

4.22 Business Incubator "Youth Entrepreneurial Service Foundation" (YES Foundation, FYR of Macedonia)

4.22.1 Regional framework in which the instrument is implemented

Like in most of the countries in the Western Balkans region, F.Y.R. of Macedonia is also experiencing difficulties in involving the SMEs, especially start-ups in the innovation support system. Large and established companies have already the necessary experience and knowhow for innovation breakthrough, but unlike them, startup initiatives are not visible, even beside the fact that they most often bring the biggest world innovations. In the year 2005, the YES Foundation has been 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 F.Y.R. 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).

4.22.2 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 idea, consulting services, entrepreneurial trainings and creation of business plan, *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 .

4.22.3 Level (Macro-, Meso- or Microlevel)

Microlevel

4.22.4 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 holders of the national economy.

4.22.5 Target groups

Young educated people with entrepreneurship aspirations, educated unemployed people

4.22.6 Initiator

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

4.22.7 Implementer

YES Foundation

4.22.8 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.

4.22.9 Impacts/results

From the year 2007 up until now, 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 USA, Germany, Switzerland, Netherland and other Western countries. Eleven companies have finished the process of incubation and are now graduated and work successfully and independently on the market.

4.22.10 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 walking the steps towards achieving its goals and vision.

Based on earlier 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 incubator give opportunity for new jobs and development of human resources.

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

4.22.11 Sustainability

Unfortunately, YES is facing serious sustainability problems and it 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 the services with benefited prices offered to the client companies and the withdrawal of the former donors, YES is being challenged in providing its sustainability.

4.22.12 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.

4.22.13 Contact

Marija Armenski, Incubator manager; YES Foundation, Arhimedova bb (P.O. Box 776), 1001 Skopje, Republic of Macedonia; marija.armenski@yes.org.mk

4.23 Foundation Business Startup Centre (BSC) Bitola (FYR of Macedonia)

4.23.1 Regional framework in which the instrument is implemented

The FYR of Macedonia is making a lot of efforts for the support of entrepreneurship and equal regional development. The Pelagonia 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.

4.23.2 Description

The Business Start-Up Centre - Bitola was established in 2007 as a project of 6 partners: the Municipality of Bitola, the University "St.Kliment Ohridski"-Bitola, the Regional Chamber of Commerce-Bitola, the Agency for 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 Pelagonia region, through opening of new small and medium enterprises, or supporting already existing. The Business Incubator that was opened in 2008 is a part of BSC Bitola and it plays an

important key role in the development and growth of the 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 the 3 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 has been 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 the potential and existent entrepreneurs when establishing or further developing their businesses.

From 2011 till 2013, the Foundation BSC Bitola is implementing the USAID’s 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 Regional Chamber of Commerce.

4.23.3 Level (Macro-, Meso- or Microlevel)

Microlevel

4.23.4 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.

4.23.5 Target group

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

4.23.6 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 promotion of entrepreneurship of the R.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".

4.23.7 Implementer

Foundation Business Start Up Centre Bitola

4.23.8 Partner

The Municipality of Bitola, University St. Kliment Ohridski"-Bitola and Regional Chamber of Commerce.

4.23.9 Budget/Funding

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

4.23.10 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 2000 people have participated in the business trainings and have gained practical business knowledge and skills.

4.23.11 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 7: 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 8: 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

4.23.12 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 receive 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 institution.

4.23.13 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.

4.23.14 Why select scheme as good practice?

The positive evaluation (see 11) is the reason to select BSC Bitola as 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 economy 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 the 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.

4.23.15 Contact

Rozita Talevska Hristovska, Director of the Foundation BSC Bitola and Chief of party USAID Grantee Business without Borders, E-mail: r.hristovska@bscbitola.org

Web address: www.bscbitola.org

4.24 Foundation for Management and Industrial Research (MIR, FYR of Macedonia)

4.24.1 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 on 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 on research and innovation in service to sustainable development. Since 2008, the Foundation is technology transfer partner in Enterprise Europe Network, active member of Europe INNOVA community as well as 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 is 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 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.

4.24.2 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.

4.24.3 Level (Macro-, Meso- or Microlevel)

Macro level (but also at meso and microlevel)

4.24.4 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 basis for employment and economic progress
- Support to 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

4.24.5 Target group

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

4.24.6 Initiators

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

4.24.7 Implementer

Foundation for Management and Industrial Research

4.24.8 Partner

Innovation Development Norway

4.24.9 Budget/Funding

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

4.24.10 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 consisted 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 held 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 projects
- Become a national coordinator of the European Network of Mentors for Women Entrepreneurs

4.24.11 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) and 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 the sustainability (or exit strategy almost since the establishment)
- Introduction and respecting highly professional Code of Conduct, with high emphasis on partnering with clients, collaborates 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 investing significant efforts to overcome some of the barriers through spreading its operation at regional level, joint initiatives with other stakeholders in the country, establishing highly competent and proven pool of external experts etc.

4.24.12 Sustainability

The Foundation has achieved and maintained its sustainability in the past 5 years. The main threat to keeping the stable growth is 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 on new services and competences.

4.24.13 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 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.

4.24.14 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.

4.24.15 Contact

Gabriela Kostovska Bogoeska, M.Sc.Eng, co-founder and executive director

phone: +389 2 3077 008; gabriela@mir.org.mk; www.mir.org.mk

5 Conclusions

In this deliverable, 21 good practice examples from the European Member States and 24 good practice examples from the Western Balkan countries are presented. The examples represent 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 undergone 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 regions. These facts and the needs expressed by the WBC project partners will be taken into account when selecting out of these 45 good practice examples those that will be further considered.

A selection of them will be used for the review meeting planned in spring 2012 in Albania for discussions and further selection. Some four or five examples will be finally chosen to develop adaptation schemes in view of a possible implementation in the Western Balkan region.