wbc-inco.net
Co-ordination of Research Policies with the Western Balkan Countries

Project number: PL 212029

D8.48/ 8: Report on the mapping of the WBC Innovation infrastructures

CONCLUSIVE SUMMARY

Table of Contents

1. Introduction

In the frame of the FP7 funded project WBC-INCO.NET, seven reports on mapping of the innovation infrastructures have been prepared in summer 2011[1], covering several important aspects of the National Innovation Systems (NIS) and presenting the status quo of innovation institutions and programmes in the Western Balkan Countries (WBC). The reports identify in Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Kosovo (UN Res. 1244), Montenegro and Serbia[2]:

- Innovation-related key government institutions and
- Key programmes as well as
- Key innovation infrastructures such as
    - Technology and Innovation Centres (TICs),
    - Clusters,
    - Technology and Science Parks (TSPs),
    - Business Start-up centres (BSCs),
    - Technology Incubators (TIs)
    - and other related organisations.

Similar reports have been already prepared during the FP6 project SEE- SCIENCE.EU in 2007 and therefore a comparison over time can now also be made. Full list of the mapped innovation infrastructures is provided in the Annex.

2. Historical perspective 2007 – 2011

	ALBANIA	BOSNIA and HERZEGOVINA	CROATIA	FYR of MACEDONIA	Kosovo (UNSCR 1244)	MONTE NEGRO	SERBIA
TICs	2 (0)	7 (+5)	9 (+3)	7 (+1)	1 (+1)	2 (+2)	5 (+1)
Clusters	2 (-2)	5 (+2)	7 (-4)	13 (+5)	1 (-2)	1 (+1)	30 (+14)
Technology and Science Parks	0 (-)	2 (+2)	5 (+2)	3 (+3)	1 (-)	0	5 (+1)
Business Incubators / Start-up Centres	2 (-)	17 (+4)	25 (+1)	4 (-6)	5 (+1)	3 (+1)	17 (+4)
Total	**6 (-2)**	**31 (+13)**	**46 (+2)**	**27 (+3)**	**8 (±0)**	**6 (+4)**	**57 (+20)**

Table 1: Innovation Infrastructures Status 2011, in absolute numbers together with the Absolute Change[3] compared to 2007 (in brackets). Yellow color designates that there are less than 4 innovation infrastructures in the respective innovation infrastructure category present in the country, orange colour 5 – 9, dark orange color designates more than 10 innovation infrastructures.

We may conclude that the Western Balkan region shows a **positive tendency** in the development of innovation infrastructures. Overall, all but two countries from the WBC region exhibited an increase in numbers of their national innovation infrastructures.

[1] The activity was carried out by Centre for Social Innovation (ZSI) in cooperation with all partners from the region and expert subcontractors. We would like to thank all contributors.
[2] These reports are accessible at http://www.wbc-inco.net/object/document/121802.html
[3] absolute change is a difference between numbers of closed and newly established facilities

Statistical Overview

- Countries with the fastest growing innovation landscape in last years are Bosnia and Herzegovina and Serbia (see last row from table 1).
- FYR of Macedonia, Montenegro and Croatia achieved slight amelioration in the field. It is important to note that even though the improvement in Montenegro does not seem to be eminent in absolute terms, compared to the 2007, when in total only two innovation infrastructures were active, this can be described as a significant improvement. Also, whereas the development in Croatia and Montenegro exhibit a rather stable development, innovation infrastructures in FYR of Macedonia showed significant volatility with 10 establishments being closed down and 13 emerging from 2007-2011.
- Despite this positive tendency in general, Albania and Kosovo (UNSCR 1244) could not enhance their innovation systems with additional infrastructures.

2.1. Dynamics of the Newly Opened and Closed Facilities

This chapter scrutinizes the individual national innovation infrastructures with regards to the numbers of opened and closed facilities as well as backgrounds of this action.

2.1.1. The newly opened facilities

With regards to the newly opened facilities, we can conclude following:

- Innovation landscape in Serbia has experienced the strongest increase of innovation infrastructures with clusters and incubators growing at the fastest rate (one new technology and innovation centre, 14 business clusters, 3 technology and science parks and 7 new business incubators/start-up centres)
- Bosnia and Herzegovina ranks second exhibiting growth in all infrastructure categories (two technology and science parks, four business clusters, five technology innovation centres and six business incubators/start-up centres were newly established).
- FYR of Macedonia ranked third with eight new business clusters, three technology and science parks and two technology innovation centres.
- Seven new innovation facilities have been established in Croatia.
- At the same time, Montenegro has improved its situation strongest compared to 2007, when only one business incubator and one business start-up centre were up and running. In 2011, the increase of two technology innovation centres, two business incubators and one business cluster is noted.
- In Kosovo (UNSCR 1244), two new business advisory centres, one perspective business incubator, one business cluster and one technology innovation centre emerged.
- Albania exhibited a slight improvement with one technology innovation centre and one business incubator being established.

ALBANIA

In Albania, the only new establishment is the *Albanian Software Cluster* (ASC), a bottom-up cluster that was created in 2010 with the support of GIZ (German International Cooperation). ASC aims to become the platform for strategic business collaboration in the industry and to this end works with the relevant stakeholders of the sector in the country and with international counterparts. In 2010, the cluster consisted of fifteen companies, two universities and one research institute. ASC is a rather new initiative, therefore it is hard to evaluate. However, its ambitions are clear as ASC wants to provide demand-driven training offers so as to support the Albanian companies in domestic market development and in export promotion.

BOSNIA AND HERZEGOVINA

Three technology innovation centres (*Agrolink, ARTECO, and MTTC*) were established within the USAID Excellence in Innovation (EI) project which are dealing with wood, agribusiness and advanced technologies.

The Innovation Centre Banja Luka was founded in 2009 with the assistance of the Ministry of Foreign Affairs of the Kingdom of Norway and the City of Banja Luka. As a donor-driven activity with international backing, the centre is still looking for its sustainability and practical way of doing business.

The *three new wood orientated clusters* in Republika Srpska (RS) were co-financed by a wide range of actors, mainly city and municipality development agencies, the Republic's Agency for the Development of SMEs (RARS), and other international donors (Germany, Netherlands). *The Wood Cluster Association in the Federation of BiH* has been funded under the USAID Cluster Competitiveness Activity. These new cluster activities in BiH are dedicated to the wood industry exclusively.

Business incubators in Trebinje and in Jablanica were set up in the frame of the project "Establishment of the Regional Entrepreneurship Centre in Herzegovina" funded by the European Union (EU) with the Entrepreneurship and Business Association LiNK Mostar acting as the main implementing body. In total, four new business incubators and two new start-up centres emerged in BiH, out of which four in the Federation of BiH and two in RS.

In general, we can conclude that the installation of the newly opened facilities is equally distributed between the two entities. Eight new facilities emerged within the Federation of BiH and nine new facilities in Republika Srpska.

CROATIA

In recent years, there has been a slight increase of innovation facilities in Croatia. Croatia displays a relative stability and continuity in this field. However, it becomes obvious that whereas old establishments show sustainability, no crucial players could enter the innovation infrastructure landscape either.

The *two new offices for technology transfer at universities of Zagreb and Rijeka* have been mainly initiated under the Tempus Project CREATE in 2008.

The only new cluster-*Boatbuilding cluster* is designed as an export oriented project based on an initiative driven by Ministry of Economy, Labour and Entrepreneurship (MELE). The cluster currently has 28 members and aims to create Croatian small boatbuilding competitive and recognizable on a national and international scale.

Two new *technology and science parks* are supported by the Technology Infrastructure Programme (TehCro) and are located in *Nova Gradiska* and *Rijeka*. Science and Technology Park Rijeka (established in 2008) is the only university-initiated science and technology park in Croatia. The park has good contacts both at local and international

level that are planned to be exploited in the near future and its prospects are claimed to be good and sustainable.
BICRO BioCenter is an incubation centre for bioscience and technology commercialization founded in May 2011. This is a unique project in Croatia as well as in the WB region. BioCenter is an incubation centre area of about 4500 square meters and will be located at the campus of the University of Zagreb in Borongaj. BioCenter is financed through the Instrument for Pre-Accession Assistance (IPA), under the Operational Programme for Regional Competitiveness. The value of the project is 18,823,995 euro. BICRO BioCenter was found by Business Innovation Agency of Croatia (BICRO, with a 60 % share), Zagreb University (27% share), and the City of Zagreb (13% share).

FYR of MACEDONIA
Innovation infrastructures in FYR of Macedonia show rather high volatility with 10 facilities being closed down and 13 new facilities coming into existence from 2007-2011.
The *two new technology and innovation centres* were established in *Skopje*. Macedonia Innovation Centre was initiated by the USAID Competitiveness Project and its main mission is to assist innovative companies to develop new innovative products and to commercialize the existing ones as well as to build up a network of partners in order to facilitate access to knowledge, technology and resources. It envisions establishing an innovation fund, business angel network and eco-system of companies that help with the commercialization of the products, technology transfer and start-ups.
The National Centre for the Development of Innovation and Entrepreneurial Learning (NCDIEL) is located at the Faculty of Mechanical Engineering in Skopje and is funded by the Austrian Development Agency (ADA). NCDIEL aims to support the realisation of innovative, technology-based and profit orientated ideas through the provision of capital for start-ups, counselling and coaching of both the operating enterprises and the newly established enterprises.
First two technology parks have been established after 2007 which are based on very different models. *SEAVUS,* the biggest Macedonian IT company has been building its private technology park that was to be opened mid 2011. Part of the park, the Educational and Development Centre has started its operation already in 2010.
Next to that, *Digital Media Park* has been established with the support of USAID through refurbishment of a former army storage capacity and after installing the latest technical equipment. The park has an outstanding track record with many international movies on the list. Thus, the technology park contributes to establishing a good reputation of the Macedonian film industry.
Furthermore, there was an increase in the business cluster segment where eight new business clusters have emerged. Due to the lack of information regarding the other clusters, based on the available information we can conclude that the most significant occurrence in this field is the *Automotive Cluster of Macedonia* (ACM). ACM is a networking association established from a joint initiative of GIZ and USAID Macedonia Competitiveness Project. Another interesting new initiative is the *IT Cluster YES4BIZ* that is supported by YES incubator (for more detailed information please see the chapter 3.4.).

KOSOVO (UNSCR 1244)
The Innovation landscape in Kosovo (UNSCR 1244) has been enriched with one technology innovation centre, one prospective business cluster and three business advisory centres.

Even though the establishment of the *Centre for Innovation and Technology Transfer* in 2008 has filled the institutional gap in the area of technology and innovation centres, the Centre actually suffers from the limited budget and therefore no particular project has been implemented so far. An extra push in this regard is certainly recommended.
The Fruits and Vegetable cluster was assessed as having a very effective means of enhancing the potential and productivity of agricultural companies by providing minor, yet, given circumstances in Kosovo (UNSCR 1244), exceptional innovation in agriculture.
Two *business advisory centres* were set-up *in Zvecan* and *Mitrovica South* based on the initiative of the United Nations Development Programme (UNDP) and the Dutch NGO SPARK. Both of them are providing training, micro credits and advisory services for start-up companies.
The Genesis Technology Centre is an interesting bottom-up initiative which currently operates as a Genesis Technology Institute and provides training for electrical engineering graduates. The Centre currently provides the electronics, computer, microelectronics and FPGA laboratories with plans to set up a mechanical laboratory in the future. Depending on the successful fundraising activities, the Centre will proceed to enlarge its activities and to set up Genesis Research Centre. The final stage shall be to take up the role of a technology business incubator.

MONTENEGRO
Montenegro exhibits a significant increase in the field compared to 2007, where there was only one business start-up and one business incubator active.
During last four years, two technology innovation centres emerged.
The European Information and Innovation Centre (EIICM) is a project initiated by the Directorate for the Development of SMEs (DDSME), the University of Montenegro, the Chamber of Economy of Montenegro and Business Incubator Bar. The EICCM offers services that foster innovation, knowledge and technology transfer. The Centre is co-funded by the DG Enterprise, therefore promotes Competitiveness and Innovation Framework Programme (CIP), its instruments and calls for eco-innovation projects what might be of a particular interest for SMEs. The EIICM is an integral part of the Enterprise Europe Network.
The R&D Service Centre at the University of Montenegro is the first university centre aimed at supporting the researchers in application for funds, project management, finding the project partners, commercializing their innovative ideas and linking them to business. Ambitions of the centre are significant with plans to enlarge its portfolio to deal more with IPR, legal issues so as to establish some spin-off companies and a start-up incubator at later stage.
DDSME together with GIZ initiated the creation of the first cluster in Montenegro – *Association of the Smoked Ham Producers.* Assistance was provided in the form of favourable credit lines and technical support. The cluster, however, seems to have a little impact on the country's innovation system.
IT Business Incubator Podgorica serves as a role model in the Montenegrin environment. It started its work in 2009 and plays a crucial role in founding the companies, transferring knowledge and providing quality services. Business Incubator Podgorica addresses not only ICT companies in a strict sense, yet it is open to accommodate companies implementing innovative solutions in business. The project "Virtual Incubation" tries to open up incubator's services to as many small companies as possible.

SERBIA

The National Programme for Business Incubators and Clusters Development has had a very positive impact on the innovation landscape in Serbia. This document laid down relatively ambitious milestones to be achieved by 2010 (for more information please see chapter 4). Formulated targets were largely met and therefore we were able to map in 2011 one new technology innovation centre, 13 business clusters, three technology science parks and seven business incubators emerged.

The biggest new cluster by far is the *Serbian Film Association* that aims to promote Serbia as a cost-effective and high-quality location for filmmaking by creating a film friendly environment and training a highly qualified and internationally skilled staff. This cluster consists of 44 member companies. Clusters of smaller size are the Serbian *Association of Food Manufacturers* with 20 member companies and *Medical Tourism Cluster* consisting of 19 companies.

Another cluster that aims to contribute to the development of clusters and business associations on structural level is the *Cluster House*. It is a non-profit business membership organisation founded under the Danish programme for local development in the Balkans (LEDIB). To reach its goal, the Cluster House has established a database of clusters and business associations and assists organizations by providing business advice, mentor support, knowledge transfer and promotion services.

When it comes to the seven new incubators, one noteworthy facility that will be later incorporated into the Science and Technology Park of the University of Novi Sad is the *Business Incubator Novi Sad.* The incubator focuses primarily on high-tech companies, yet also flexibly accepts other similar companies on a temporary basis if space is available. The objectives of the Business Incubator Novi Sad are to provide the technology or other entrepreneurs with all the resources they need to build up a successful business. A total of 4,000 square metres should be developed with a tenant focus.

2.1.2. Closed facilities

While scrutinizing the reasons and background of the closed infrastructures, interesting facts can be observed:

- From all innovation infrastructures, business clusters, as the easiest facility to set-up, is also most prone to closure after the provided assistance from donors is over. In total, 16 out of 45 clusters operating in 2007 had to be closed. Croatia, Albania, Kosovo (UNSCR 1244) and Bosnia and Herzegovina are countries with the most volatile business cluster environment. More than 45% of the incubators have been closed from 2007 onwards.
- Business incubators and start-up centres rank second in this category. 15 (14 incubators and one start-up centre) out of 66 business incubators and start-up centres had to be closed down since 2007. Kosovo (UNSCR 1244) closed all three of its business incubators (only one start-up centre remained open). FYR of Macedonia also stands out in this respect as six incubators out of 10 operating business incubators and start-up centres (in particular, eight incubators + two start-up centres) were closed down from 2007-2011.
- Technology and science parks, as the most capital-intensive facilities, exhibit relative sustainability in their activities in general. After the bulk of requirements is overcome, and once the projects are up and running, they succeed to fulfil and pursue their

mission. Moreover, technology innovation centres that are commonly linked to the universities show sustainability in their actions as well.

ALBANIA

In Albania, one business cluster has been set up while three business clusters were closed from 2007-2011. The closed business clusters were supported under the USAID EDEM project (Albanian Enterprise Development and Export Markets Services) and came to an end with the end of the EDEM project in 2008. The EDEM project served as a facilitator of the clusters, employing cluster managers, providing technical assistance, office facilities as well as specific research activities that were requested by cluster members. After the initial phase, the clusters were expected to prove self-sustainable what did not happen in three out of four cases.

The only EDEM supported cluster that proved sustainable was the *Leather Goods/Shoe Production Industry Cluster*. It was jointly managed by the EDEM Project and the Albanian Centre for International Trade (ACIT). ACIT took over the management of the cluster while receiving guidance and assistance from EDEM. It seems that an involvement of the national actor, who also builds-up its own capacities and takes co-ownership for the project, affected sustainability in a positive way.

BOSNIA AND HERZEGOVINA

A similar pattern is to be observed as in Albania. Two clusters that have been established within the USAID project Cluster Competitiveness Activity (CCA), Wood Processing and Forestry Cluster and Tourism cluster, perished after the assistance was over. The only cluster that remains in operation in 2011 is the *Automotive Cluster* as a bottom-up initiative with substantial business backing.

CROATIA

Even though overall statistics is very positive, evidence suggests that clusters are still struggling to succeed in their mission. Whereas in the year 2006, the development of 18 clusters in six sectors was supported by the Ministry of Economy, Labour and Entrepreneurship, the mapping report 2007 was able to identify only 11 operating ones. This number plummeted within next three years. In the 2011 report, seven clusters were identified. Four out of five closed business clusters were located in the Varaždin County.

FYR of MACEDONIA

In FYR of Macedonia, six of the World Bank funded business incubators were not mapped in 2011 what reveals that sustainability is a weak point of the Macedonian innovation system. As a result of this decrease, the number of business incubators has fallen between 2007-2010 from ten to four, out of which two operate as business incubators and two as business start-up centres. The only remaining World Bank funded incubator is the *Strumica Incubator* which was renamed to Agriculture Business Development Centre Strumica and at the moment provides its tenants with additional training, consultancy, accountancy and other financial services. Thus, sustainability is a criterion that needs to be substantially considered when implementing donor-driven projects in the future.

KOSOVO (UNSCR 1244)

All three operating business incubators were closed, making the business incubator sector in Kosovo (UNSCR 1244) practically non-existent.

MONTENEGRO
Montenegro experienced an overall positive development, one business incubator had been closed during the period 2007-2011.

SERBIA
It can be concluded that compared to the other WBCs, innovation structures in Serbia show strong sustainability, what is definitely a positive finding. In Serbia, none of the (primarily) donor-funded clusters that were operating in 2007 had to be closed down. Also in remaining innovation infrastructure categories, the overall increase of innovation establishments has outweighed the downfall.

3. Current status (2011)

Colored differentiation in the table 1 serves for better overview of the 2011 status of innovation facilities in the Western Balkan Countries. The table sheds light on the numbers of innovation infrastructures in the WBC and helps to identify current status of the national innovation capacities. Yellow color designates that there are less than 4 innovation infrastructures in the respective innovation infrastructure category present in the country. Orange colour highlights that there are 5 - 9 facilities present in the country and dark orange color designates more than 10 innovation infrastructures.
Even though the absolute numbers are suitable to recognize general tendencies; crude numbers are not able to provide a detailed picture and do not provide differentiated overview of such complex field as innovation infrastructures is, with the dependencies and links to other sectors and factors (such as legal framework, entry barriers, infrastructure, etc).

Based on the table, the following findings may be concluded:

- Serbia, in general, being also the largest country in the region, has the largest number of innovation infrastructures, followed by Croatia, the region's most economically successful country, Bosnia and Herzegovina and FYR of Macedonia.
- Albania, Montenegro and Kosovo (UNSCR 1244) have national systems with little innovation infrastructures.
- FYR of Macedonia and Serbia stand out with regard to the number of clusters.
- Bosnia and Herzegovina, Croatia and Serbia have succeeded in developing the largest business incubator and start-up centre environment among the WBC.
- Business incubators are the most spread innovation facilities in WBC with 73 facilities in total, followed by business clusters with 59 establishments within the region.
- The weakest points of the innovation system in WBC are technology and science parks, which certainly are complex yet important and stable carriers of the innovation systems with large impact and high multiplier effects. Albania and Montenegro are countries with no technology and science parks at the moment. The countries could learn from the experience of FYR of Macedonia which was able to establish three TSP over last 4 years. Presence of TSP signals a relatively better developed innovation environment.

Trying to come up with some kind of ranking in this overview, we conclude that Croatia has the most developed innovation infrastructure system together with Serbia but with

different foci: whereas in Serbia we could map many clusters (although the impact and output of some of them is questionable), Croatia has put most focus on business incubators and start-up centres, followed by FYR of Macedonia and Bosnia and Herzegovina. Kosovo (UNSCR 1244), Montenegro and Albania are currently still in the catching-up process.

3.1. Key Innovation Infrastructures – Highlights

This subchapter is dedicated to different types of innovation infrastructures and shows few notable innovation models and structures as well as limitations that are present in the national systems.

3.1.1. Technology and Innovation Centres

Technology and Innovation Centres are traditionally closely linked with the universities and their primary focus lies on technology transfer between different stakeholders such as the university, research and business sectors. As such, TICs may also provide incubation services or other management services for companies.

Overview

- Croatia is country with the largest number of technology and innovation centres, followed by Bosnia and Herzegovina, FYR of Macedonia and Serbia.
- Countries that could strengthen these institutions are Kosovo (UNSCR 1244), Albania and Montenegro.

Highlights

BOSNIA AND HERZEGOVINA: Three new innovation centres aim to foster the competitiveness and exchange of knowledge in the sectors of the wood, agriculture and advanced technologies. They have been set up under the USAID Excellence in Innovation Project. Next to that, *Innovation Centre in Banja Luka* aims to bridge the gap between the science, R&D and business sector by providing incubation services as well as training, conference facilities and business gardens. The centre is strongly innovation oriented (field of micro wind systems, ICT) and largely inspired by the donor, Norwegian government. It is still at the beginning of its existence searching for its purpose, sustainability and methods of operation.
CROATIA: Croatian technology innovation centres are strongly linked to the universities. The *MARIBIC Business and Innovation Centre for Mariculture* is part of the University of Dubrovnik. It provides services for students and entrepreneurs and is a unique scientific and research organisation that presents a role model on how to efficiently organize scientific and research infrastructure in Croatia. The Centre runs research projects on an international scale, offers practical trainings as well as business services for start-up companies and technology transfer services.
Another interesting innovation model is *Rudjer Innovation* (RI) that has been established in 2008 by the largest institute of natural sciences in Croatia, Institute Ruder Boskovic. The two institutes remain tightly connected and try to exploit the scientific experience concentrated in the former. Thus, RI is a unique organisation as it aims at the

commercialisation of fundamental scientific research while seizing the experience from the Institute Ruder Boskovic.
Technology Development Centre Osijek and *TIC Rijeka* are TICs that were initiated by universities and aim to transfer technology between university and SMEs. Both TICS are incubating technology-based enterprises and are supported by the founding University and the Ministry of Science, Education and Sports (MSES).
FYR OF MACEDONIA: Technology and innovation centres remain to be mainly centralised in the city of Skopje.

3.1.2. Business Clusters

Business clusters are associations of manufacturers or service providers from a certain field that, by means of mutual cooperation and collaboration with research institutes, educational providers or management service providers, aim to achieve synergy effects.
In WBC, clusters orientated towards wood, fruit and vegetable processing, agriculture or tourism have a long tradition. Moreover, in recent years trend shifts towards the industry fields with higher added value such as mechanization, automotive industry or ICT.
The clusters that stand out are characterized by a bottom-up structure, proximity to the market and strong business affiliation.

Overview

- The countries with the strongest clustering initiatives are Serbia, FYR of Macedonia, Croatia and Bosnia and Herzegovina.
- Albania, Montenegro and Kosovo (under UNSCR 1244) are countries with a less developed cluster scene.
- Croatia is the WBC forerunner in the transition towards sectors with a more sophisticated value chain. FYR of Macedonia is experiencing the same shift with 4 from 9 clusters dealing with mechanization or ICT.

Highlights

BOSNIA AND HERZEGOVINA: Four *new clusters in the field of wood industry* have been established, two of them at entity levels and two of them at local levels with support of a diversified portfolio of donors. The wood sector obviously plays a significant role in the innovation landscape of Bosnia and Herzegovina. *Automotive industry cluster* is the only cluster that shows continuity in its existence and survived the year 2010.
CROATIA: Only two of the seven identified clusters focus on the primary sector of the economy. The shift of the other clusters towards manufacturing with higher added value is noticeable (one automotive cluster, one publishing, two boat-building, one cluster focused on ICT).
Cro.ict - Association of Croatian ICT Clusters was founded in 2007 as a bottom-up cluster initiative consisting of the six regional clusters. Cro.ict has business backing of four acknowledged Croatian ICT companies and acts to support its members in their endeavours to become self-sustainable at local level.
FYR of MACEDONIA: Nine business clusters are mainly orientated towards the sectors of food, wood processing, tourism and fashion. As for the remaining clusters, one cluster is dedicated to the automotive industry, one to agriculture mechanization and two relatively strong clusters deal with the field of ICT.

SERBIA: The orientation of 30 Serbian clusters that are operating at the moment is rather traditional. The main focus of 21 clusters lays on the processing industries such as food, wood, textile, groceries; and tourism.
However, the tendency shifts towards the sectors with more sophisticated value chains. Nine clusters are operating in the fields of ICT, advanced technologies, cars or environmental concerns as well as creative industries. One good practice example is *Vojvodina ICT Cluster*, which was established in 2010 and already has 28 members with more than 1,500 employees. This cluster has been established as a bottom-up initiative and is strongest in its field in Serbia with a track record from worldwide clients.

3.1.3. Technology and Science Parks

Technology and science parks provide facilities for innovation projects such as business support and knowledge transfer services that involve a wide range of actors such as businesses, education institutions, industry and financial support services. For this purpose, physical facilities as well as infrastructures are made available.

Overview

- Croatia and Serbia both have five operating technology and science parks, followed by FYR of Macedonia with three, Bosnia and Herzegovina with two parks and Kosovo (UNSCR 1244) with one park.
- There are no technology and science parks in Albania and Montenegro.
- There are numerous models of financing in place. Whereas usually, the investment is being provided by the local authorities, national ministries or universities; private business parks or national and international donor-driven parks are set up as well. Due to the size of the projects, combination of numerous financial strands is common practice as well.

Highlights

BOSNIA AND HERZEGOVINA: The situation has improved significantly with the first two *technology parks* getting up and running. Whereas the park *in Mostar* works as a well established and active institution with links to important stakeholders including the universities, the park *in Banja Luka* is still in the finalising phase of the planning. Once the construction is completed, the park should encompass technology and development centre, investors centre, entrepreneurial zone, network incubator and logistic centre and thus is planned to provide a unique and comprehensive infrastructure for the tenants.
CROATIA: With regards to the funding lines, two technology parks receive financing from the cities of Zagreb, Kutina and relevant ministries. The other three TSP are funded from BICRO, the main implementing agency of the TehCro Programme as well as other sources such as city subventions, ministries etc.
Technology Park Varazdin was established in 2003 and focused originally on the ICT sector. However, once the premises are not fully booked, any start-ups may apply for the office space. In addition to 1,300 square meters of available business space, building reconstruction of 3,300 square meters was underway.

SERBIA: Science and Technology Parks in Serbia predominantly focus either on general clientele, or on the companies from services and manufacturing, ICT or nuclear energy scientists and companies.
The Science and Technology Park Novi Sad will span a total of 22,650 square meters and will include in its premises an innovation centre as well as a business incubator so as to offer an all-inclusive range of services for the hosted companies. This ambitious project is foreseen to be opened in 2012.
The *Mihajlo Pupin Institute* (MPI) is a leading Serbian R&D institution in ICT. It was established as part of the transformation process from a state-owned R&D institute into a network of new dynamic, highly profitable, efficient and highly qualified companies, integrated within the STP MPI. These companies are a source of new small and medium sized incubating spin-off companies in the field of ICT. The Institute presently has approximately 500 employees.

3.1.4. Business Start-up Centres, Technology Incubators

Business incubators aim to attract small start-up companies that, for a limited time period, enjoy free or reduced rents. Next to using the office space, they have the option to use business infrastructure as well as intellectual or business services. After certain time, the start-up companies are expected to become independent and leave the protected area of the incubator.

Overview

- There are 25 business incubators and start-up centres located in Croatia and 17 both in Serbia and Bosnia and Herzegovina.
- Five facilities have been mapped In Kosovo (UNSCR 1244), four in FYR of Macedonia, three in Montenegro and lastly, two in Albania.

Highlights

ALBANIA: The two business incubators in Albania do not function as real business incubators, because the businesses in these incubators are in operation since more than 5-8 years.
BOSNIA AND HERZEGOVINA: The sector of business incubators has strengthened in BiH. One of the biggest incubators is the *NBR Incubator* with more than 8,250 square meters of available office space. The incubator is committed to shift from job creation towards provisions of sophisticated services for the businesses. The NBR Incubator is named after its founder, the Independent Agency for Development (NBR).
Another incubator with 10,933 square meters of available space is the *Incubator Lipnica* that is partially funded from the Municipality of Tuzla, partially from EU funds and its own business activities.
The *Business Innovation and Technology Centre Tuzla* (BIT Centre Tuzla) was established in October 2005 with the support from local and Norwegian partners. A main goal of the BIT Centre Tuzla is to provide an opportunity for young experts and entrepreneurs to start-up their ICT businesses. There are three types of companies/projects in BIT Centre: “idea developers” (projects), “start-up companies”, and “young established companies” with a growth potential. The majority of the

companies settled in the BIT Centre are start-up companies. BIT Centre Tuzla has three components: ICT Business Incubator, ICT Training Centre, and ICT Research Centre.

CROATIA: Croatia has one of the most advanced incubator programmes that are running in the framework of national strategy on business incubators. It intends to place the supported incubators in less developed regions so as to level the regional economic disparities.

There are currently 25 officially registered start-up centres/technology incubators. Yet, when it comes to the key incubators, the number and composition remains stable. On the one hand this can be perceived as a positive trait and a sign of continuity, on the other hand, this could reveal the limitation of the system to accept and absorb new entrants that could possibly bring enrichment to the business environment.

FYR of MACEDONIA: Four present business incubators vary greatly in their scope: *Ss. Cyril and Methodius University Business Start-Up Centr*e is located at the university and tries to attract young graduates and people with innovative ideas.

Agriculture Business Development Centre Strumica targets farmers, traders and food processors.

Furthermore, *Business Start-up Centre Bitola* project constitutes of business incubator services and start-up trainings for unemployed or disadvantaged people. BSC Bitola implements the USAID project "Business without Borders" that tries to accelerate the development of SMEs and by that also the economic development in the southwest of FYR of Macedonia.

The objective of *YES incubator* is to support innovative ideas among 18-35 year-old people. Beside the usual, its services include Entrepreneurship trainings, Cisco Entrepreneur Institute trainings, and business plan competitions, Grant Fund and Seed Capital Fund, Matchmaking etc. Both BSC Bitola and YES Incubator are doing a very good job fulfilling their missions, yet they would need more government or local support.

KOSOVO (UNSCR 1244): Since the only three business incubators operating in 2007 have ceased to exist, the business incubator sector in Kosovo (UNSCR 1244) turned practically non-existent. In 2007-2011, four Start-up Centres have emerged that aim to support start-up companies in search for office spaces, practical training courses, micro-credits and consultancy. *GENESIS Technology Centre* is currently a training institute with the perspective to enlarge its activities to business incubation in the future.

SERBIA: Among business start-up centres and technology incubators, the prominent institutions include *BTI of Technical Faculties Belgrade*.

Business Incubator Knjaževac was the first Serbian incubator established based on a bottom-up initiative in 2005. Currently, the incubator is self-sustainable and financed entirely from its own activities. The incubator is now recognised as a role model for national business incubation.

4. Legal Framework on Innovation Policy

The current state of the innovation infrastructures is to be seen in the broader context of the national policy settings. The national strategies and subsequent action plans, when favourable and backed with efficient resources for implementation, achieve their goals and contribute to establishing a healthy innovation environment.
In this chapter, a brief overview of the latest developments in the WBC region will be presented.

Speaking in general we can conclude that the **legal framework in the Western Balkan Region has advanced** and became more mature from 2007-2011.
Croatia is country with relatively mature legal framework for innovation. Serbia has introduced the Innovation Law in 2005, which was backed by the National Programme for Business Incubators and Clusters Development 2007-2010.
Albania has recently adopted a legal framework for innovation. The implementation of this framework is starting right now. FYR of Macedonia is currently drafting the Innovation Policy Programme 2012-2020.
Bosnia and Herzegovina, Kosovo (UNSCR 1244) and Montenegro are implementing SME Development strategy that cover only few aspects of the innovation system. In these countries, a legal framework for the innovation policy is still missing.
When adopting a national strategy, it is a good practice to include and pay attention to different categories of innovation facilities (incubators, clusters, TSP) so as to develop a diverse and comprehensive innovation system.
As a supportive measure, in countries that are still struggling with lack of innovation facilities, numerous international donors are offering funding schemes for the businesses.

ALBANIA
Albania, as a country with a rather dysfunctional innovation system, shows strong commitment to define and implement a sound legal framework and strategy so as to improve the innovation situation in the country[4].
In 2010, *the Strategic Programme for the Development of Innovation and Technology for SMEs (2011-1016)* has been elaborated by the Ministry for Economy, Trade and Energy (METE) with the assistance of an IPA 2007 project. This foundation stone is an important step forwards and an absolute pre-requisite to stimulate the creation of a functioning and coherent innovation system. This Strategy and the subsequent Action Plan foresee the establishment of the Business Relay and Innovation Centre that started operations in May 2011 within the Albanian Investment Development Agency (AIDA). *Business Relay and Innovation Centre (*BRIC) starts as a small department within AIDA with a prospect to enlarge the scope and size of competencies once the planned projects are in place.
The main goal of BRIC is to strategically approach the building up of the national innovation system. In particular, the Centre will be in charge of infrastructure (incubators and clusters) development as well as it will be managing the Innovation Fund and Innovation Support Services. Within the Albanian Cluster Programme and Business

[4] http://www.eu-sme.al/doc/BITS_BITAP%20Stakeholders%2020100920%20v02.pdf

Incubator Programme, the development of three business incubators and six clusters within the first three years of BRIC´s operation is foreseen.
When it comes to the international donor organisations in the country, despite the fact that there are numerous funding opportunities, the Albanian innovation system, due to its infancy, is not able to fully benefit from the opportunities available. In order to do so, sound elaboration of the overall innovation system as well as continuous awareness raising and training on the funding options should be offered.

BOSNIA AND HERZEGOVINA

In Bosnia and Herzegovina, there is no relevant legal framework for innovation policy in place. This innovation strategy together with the establishment of Agency for Innovation at national or entity level would be a good base to create an innovation network with clear rules and lines of responsibility[5].
In 2010, the national SME framework seems to be in place, even though the implementation is still pending and its link to innovation in the society is rather weak. *The SME Development Strategy 2009-2011* has been formulated at federal level by Ministry of Foreign Trade and Economic Relations of BiH (MoFTER). The strategy includes the creation of the SME Agency at national level aiming to coordinate the strategic framework and to establish the Development and Entrepreneurship Fund as well as the Development and Entrepreneurship Council. Similar strategies have been developed at entity levels as well[6] and promise a more integral and coherent approach towards the innovation system building.
The Federal Ministry of Development, Entrepreneurship and Crafts is in charge of the SME business development and is also responsible for the technological business parks in the Federation of Bosnia and Herzegovina. The Ministry of Science and Technology of Republic of Srpska is the most relevant ministry in RS, supporting the innovation sector and co-financing equipment purchase and international collaboration. The Ministry of Industry, Energy and Mining of RS deals with several important sectors for innovation related issues and also prepares the programme for the Agency for Development of SMEs in RS.

CROATIA

Croatia has the most comprehensive and well elaborated innovation strategy when it comes to the level of detail, considered perspectives and available programmes. Croatia disposes over numerous national programmes that finance, among others:

- *Technology infrastructures* under the Technology Infrastructure Programme TehCro supported by the World Bank;
- *Knowledge-based enterprises* under the Development of Knowledge-Based Enterprises Programme RAZUM financed from the Ministry of Economy, Labour and Entrepreneurship (MELE), the Croatian Bank for Reconstruction and Development (HBOR), the Fund for Development and Employment (FDE) and a World Bank loan;
- *Feasibility studies of the business idea* under the Proof of Concept PoC;
- *Commercialisation of inventive activities* under the Technology-Related Research and Development Programme TEST; and
- *Other complementary fields* which are crucial for the creation of an entrepreneurship culture and enhancement of national innovation level.

[5] http://www.mvteo.gov.ba/vijesti/posljednje_vijesti/Default.aspx?id=1204
[6] Strategy of SME Development in Bosnia and Herzegovina 2009-2011, Development of SME Entrepreneurship in Federation of BiH

These programmes are crucial to foster competitiveness and innovation in the country. However, in order to be effective, they need not only to provide a strategic vision, yet also to make available a reasonable sum of money so as to be able to realise their goals. Currently, this is not the case in many of them as national experts indicate. TehCro is currently supporting seven projects dealing with the development of the technological and scientific infrastructure, what could be further enhanced.
The Ministry of Economy, Labour and Entrepreneurship (MELE) supports the innovation infrastructures overall, development of innovation centres, clusters and innovation activities in the small shipbuilding sector. The activities of the MELE relate to technology and innovation and are complementary to the objectives of the Ministry of Science, Education and Sports (MSES) that focuses rather on science, innovation and technology policy.
The MSES has initiated the national innovation system in 2001 by launching the first innovation policy programme–*Croatian Programme for Innovative Technological Development (HITRA*). This initiative is a follow-up on the first undertakings in 90-ties, when the *Business and Innovation Centre of Croatia (BICRO)* and the four technology centres closely related to universities in Zagreb, Rijeka, Split, Osijek and Dubrovnik were established.
BICRO is the most important implementing agency in the field of innovation programmes with longstanding experience in managing, planning and analyzing projects in the field of innovation activities. Complementary to BICRO is Croatian Institute of Technology (HIT) that strives to serve as a crucial body in the field of technology policy.
In comparison to the other countries, where innovation infrastructures have been predominantly funded from international programmes, Croatian state-funded projects exhibit good levels of sustainability. Beside clusters which present a case on its own, the sustainability of other innovation infrastructures is above average compared to the other Western Balkan Countries. We might conclude that national commitment and national knowledge fed into the project positively affects the survival capability of the infrastructure.

FYR of MACEDONIA
The National Development Strategy for the SMEs has been formulated for the period *2002-2013*. This strategy foresees the strengthening of the innovation capacity of SMEs, which was very limited in its nature so far, with insufficient financial resources. In order to solve the situation, the Strategy planned to foster the science-business links and to introduce the innovation-oriented programmes. The voucher system for consulting services was introduced to facilitate the access of SMEs to business support services. In 2006, FYR of Macedonia still lacked the national technology and innovation strategy as well as the industrial strategy.
This has improved by 2011. In 2010, a *Programme for the development and support of cluster association in the FYR of Macedonia* was adopted. In 2011, drafting of the *Innovation Policy Programme for the Republic 2012-2020* is foreseen by the Ministry of Economy (MoE). It is however recommended, that next to these strategic documents, innovation policy is equipped with more staff and increase of the budget so as to be able to achieve its goals effectively.
Ministry of Education and Science (MoES) is operating annual competitions to finance new joint products such as technical-technological projects and development projects.
It is also recommendable to increase the collaboration between the MoE as the main body for the formulation of the innovation policy and the MoES, responsible body for the policy formulation in the field of science and technology.

The main implementing body with regards to the SMEs and their innovation endeavours is the *Agency for Promotion of Entrepreneurship of the Republic of Macedonia (APERM)*.

MONTENEGRO

The *Strategy for the Development of SMEs 2011-2015* has been drafted and is coordinated by the Ministry of Economy. This Ministry has also recently adopted the Strategy for Energy Efficiency 2010, which will enable possibilities for a number of new innovative activities in the renewable energy field. Next to that, the Ministry of Science has finalised a new law on Scientific-Research Activity and announced a public call for the feasibility study for the first technology park in Montenegro.

Next to the Ministry of Economy, the *Directorate for the Development of SMEs (DDSME)* is the main institution for the realization of the innovation policy and development of SMEs. The DDSME has established two business incubators operating in the ICT field, one business incubator of a general character. Furthermore, the DDSME also supported the creation of the first cluster in Montenegro and provides advice on innovation and energy efficiency through a network of regional/local business centres. The Directorate also foresees to introduce a voucher scheme for innovation in cooperation with the OECD.

KOSOVO (UNSCR 1244)

In its Progress Report 2010, the European Commission stated that Kosovo (UNSCR 1244) is missing a framework for the development of SMEs. As a result of this, the Kosovo Government adopted a *SME Development Strategy* in July 2011. This Strategy is a result of joint efforts between the EUSME project and *SME Support Agency of Kosovo (SMESA)* and identifies measures that need to be undertaken to advance reforms in order to create a dynamic SME sector and generate new jobs. It is a comprehensive strategy aiming to address all challenges that SMEs are facing.

The implementation of the Strategy[7] shall start from January 2012 onwards. The Strategy foresees to establish a Business Innovation Centre and to implement the EU Entrepreneurship and Innovation Programme (EIP). The SMESA as the main implementation body has a good track record improving the SME environment, therefore prospects are encouraging.

SERBIA

The legal framework defining the innovation infrastructures consists of the *Innovation Law from 2010* and the *National Programme for Business Incubators and Clusters Development 2007-2010* that was jointly prepared by the Ministry of Economy and Regional Development (MERR) and the *National Agency for Regional Development (RASME)*. Specific objectives of this programme were to establish at least fifteen business incubators, one technology and science park, minimum of ten operative clusters as well as an Innovation Relay Centre. Comparing the programme goals with the status quo in 2011, we can state that thirteen new business clusters, three technology and science parks and seven new incubators came into existence. Euro Info and Innovation Relay Centre was set-up within the University of Belgrade Innovation

[7] http://www.smesupport.biz/cms/images/stories/key-documents/190711_sme_development_strategy_for_kosovo_en.pdf

Centre. On the whole, we can confirm that the programme has fulfilled its goals but in one case, the quota of ten operative clusters has been only partially achieved.
The Innovation Law foresees the formation of organizations for support of innovation activities and technology transfer centres and an establishment of a Serbian Innovation Fund.
The RASME plays crucial role in implementing this legal strategic framework and performs as a well established and acknowledged institution. There is a relatively limited co-ordination between MERR and RASME, which could be enhanced in the future.

5. Conclusions

- A number of donor-driven initiatives perish after the donor withdraws its funding from the project. Therefore it is recommendable to conduct measures that would foster the sustainability of the project's results and impact.
- Involvement of national actors in the donor-driven feeds the national knowledge and ownership into the project that seems to have positive effects on the sustainability of the facility. As indicated by our experts, local knowledge cushions the first phase of the facility existence, when a donor-driven facility searches for the right direction, sustainability and market.
- Bottom-up initiatives, after they reach the level of financial stability, prove to be very appropriate models for facilities to survive. Clear business affiliation from the start is another factor that has positive effects on sustainability.
- National programmes aimed to enhance the numbers of different innovation infrastructures also positively affect and encourage the growth of the sectors (e.g case of Croatia and Serbia). Moreover, it proves to be a good practice to include different categories of innovation facilities (incubators, clusters, TSP) in the national action plans so as to develop a diverse and comprehensive innovation system.
- Ministries responsible for innovation are key actors that encourage, through their strategies and various funding models, the development of innovation infrastructures. However, due to the recent financial crisis, they were forced to cut back the budget for these activities. To create a healthy and stimulating national innovation landscape, however, substantial initial investment is needed. Therefore, it is recommendable to provide sufficient financial framework for setting-up of innovation facilities. It is also important to have enough well educated human resources managing the innovation policy who are capable to drive the process forward.
- In few cases, co-ordination and co-operation between different innovation-relevant ministries at state level seems to be limited. It is recommendable to enhance the level of this cooperation so as to formulate a comprehensive and well-functioning strategy and to have a collaborative and effective network in place when it comes to the implementation.
- Numerous international programmes are present in WBC countries when it comes to business development and innovation infrastructures. These programmes vary greatly in size, scope and programming. Next to that, the general lack of awareness on the programmes, their regulations and framework hampers the participation rate of the WBC organisations. Therefore, awareness campaigns accompanied with relevant trainings seem to be crucial to fully exploit the potential of the programmes by national actors.

6. Annex – List of Mapped Institutions in the WBC region

ALBANIA		BOSNIA and HERZEGOVINA	
2007	2011	2007	2011
INNOVATION CENTRES		INNOVATION CENTRES	
Business Innovation Centre Albania (BIC)	closed	Research Innovative Technology Center (RITC)	Research Innovative Technology Center (RITC)
Agricultural Technology Transfer Centres (ATTC)	Agricultural Technology Transfer Centres (ATTC)	Entrepreneurship and Innovation Centre at the University of Zenica	Entrepreneurship and Innovation Centre at the University of Zenica
	Business Relay and Innovation Centre (BRIC) within the Albanian Agency for Business and Investment		Innovation Center Banja Luka
			Agribusiness e-BIZ Centre
			Arteco Wood Technology Centre
			Centre of Advanced Technologies (MTTC)
			Technology and Development Centre of Technological Business Park Banja Luka
CLUSTERS		CLUSTERS	
Meat Processing Cluster	closed	Automotive Cluster Bosnia and Hercegovina	Automotive Cluster Bosnia and Hercegovina
Medicinal and Aromatic Herbs Cluster	closed	Wood Processing and Forestry Cluster	Closed
Specialty Tourism Cluster	closed	Tourism cluster 'Institute for Collaboration' with 3 regional tourism clusters in Sarajevo, Krajina and Herzegovina	Closed
Leather Goods/Shoe Production Industry Cluster	Leather Goods/Shoe Production Industry Cluster		Wood Cluster Association Bosnia and Herzegovina (WC-BIH)
	Albanian Software Cluster(ASC)		Forestry and Wood Technology Organization in Bosnia and Herzegovina (INTERFOB BH)
			Wood and Furniture Cluster DRVO Banja Luka
			Wood and Furniture Cluster DRVO Prijedor
TECHNOLOGY AND SCIENCE PARKS		TECHNOLOGY AND SCIENCE PARKS	
No technology and science parks are existing at the moment.	No technology and science parks are existing at the moment.	No technology and science parks are existing at the moment.	Technology Park Ltd. Mostar(TP MOSTAR)
			Technology Business Park Banja Luka
BUSINESS-START-UP CENTERS, BUSINESS/TECHNOLOGY INCUBATORS		BUSINESS-START-UP CENTERS, BUSINESS/TECHNOLOGY INCUBATORS	
Business Incubator in Shkoder	Business Incubator in Shkoder	Business Start-Up Centre Zenica	Business Start-Up Centre Zenica
Business Incubator in Tirana (BIT)	Business Incubator in Tirana (BIT)	Business Start-Up Centre University of Tuzla	closed
		Business Innovation and Technology Centre Tuzla	Business Start-Up Centre University of Tuzla
		NBR Business Incubator	NBR Business Incubator
		Business and Entrepreneurial Centre - Incubator “Lipnica” Tuzla	Business and Entrepreneurial Centre - Incubator “Lipnica” Tuzla
		NGO Krajina - Business Incubator Banja Luka	NGO Krajina - Business Incubator Banja Luka
		Business Incubator in Brčko	Business Incubator in Brčko
		Business Incubator Mostar	closed
		Business Incubator Prijedor	Business Incubator Prijedor
		Business Incubator Sarajevo	Business Incubator Sarajevo
		Business Incubator Zenica	Business Incubator Zenica
		Business Incubator Žepce	Business Incubator Žepce
		BOSPER (Bosnian Perspective in Agriculture)	BOSPER (Bosnian Perspective in Agriculture)
			Agro-Incubator Zepce
			Business Incubator Jablanica
			Business Incubator Trebinje
			Business Incubator Zavidovici
			International Business Centre Mostar
			University Enterpreneurship Centre, Banja Luka University

CROATIA		FYR of MACEDONIA	
2007	2011	2007	2011
INNOVATION CENTRES		**INNOVATION CENTRES**	
Centre for Technology Transfer, Zagreb	Centre for Technology Transfer, Zagreb	Centre for Research, Development and Continuing Education, Faculty of Mechanical Engineering, Skopje	Centre for Research, Development and Continuing Education, Faculty of Mechanical Engineering, Skopje
Technology Innovation Centre Rijeka Ltd.	Technology Innovation Centre Rijeka Ltd.	Technology Transfer Centre, Faculty of Electrical Engineering and Information Technologies, Skopje	Technology Transfer Centre, Faculty of Electrical Engineering and Information Technologies
Technology Centre Split	Technology Centre Split	Centre for Applied Research and Continuing Education, Faculty of Agriculture, Skopje	Centre for Applied Research and Continuing Education, Faculty of Agriculture
Technology Development Centre Osijek Ltd.	Technology Development Centre Osijek Ltd.	Euro-Regional Technological Centre, Faculty of Technical Studies, Bitola	closed
Research and Development Centre for Mariculture, University of Dubrovnik	Business and Innovation Centre for Mariculture, University of Dubrovnik	Technology Transfer Centre for Chemical and Textile Engineering, Faculty of Technology and Metallurgy, Skopje	Technology Transfer Centre for Chemical and Textile Engineering, Faculty of Technology and Metallurgy, Skopje
Technology Transfer Offices at University of Split	Technology Transfer Offices at Universities of Rijeka, Split and Zagreb	European Information and Innovation Centre in Macedonia	European Information and Innovation Centre in Macedonia
	Rudjer Innovation		Macedonia Innovation Centre - Innovation to Business
			National Centre for Development of Innovation and Entreprenurial Learning, Faculty of Mechanical Engineering Skopje
CLUSTERS		**CLUSTERS**	
Cro.ICT - Croatian ICT Cluster Initiative with 6 smaller ICT clusters	Cro.ICT - Croatian ICT Cluster Initiative with 6 smaller ICT clusters	IT Cluster (Digital Technology Cluster - Sub-group of IT Cluster)	IT Cluster
BIOS Printing and Publishing Cluster	BIOS Printing and Publishing Cluster	Wine Cluster	closed
Biotech Cluster	closed	Tourism Cluster	closed
Wood Cluster of Western Croatia (Lika and Gorski kotar)	Wood Cluster of Western Croatia (Lika and Gorski kotar)	Lamb and Cheese Cluster	closed
Northwest Croatian Wood Industry Cluster	Northwest Croatian Wood Industry Cluster	Apparel Cluster	Textile Cluster, Textile Trade Association (TTA-TK)
Croatian Textile Industry Cluster	closed	Cluster for Wine Foundation	Cluster for Wine Foundation, Tikvesh Wine Path
Croatian Shoe Cluster	closed	Cluster for Fashion and Design	Cluster for Fashion and Design
Metallurgic Cluster	closed	Cluster for Processing Fruits and Vegetables	Cluster for Processing Fruits and Vegetables
EU-vita Cluster	closed		Automotive Cluster of Macedonia
Shipbuilding Cluster	Shipbuilding Cluster		Cluster Candies Industry
Automobile Cluster	Automobile Cluster		Cluster for Agricultural Mechanization
	Boatbuilding Cluster		Cluster for Honey
			Cluster for Tourism in the Osogovo Cross Border Region, Kriva Planaka
			Cluster for Wood
			Cluster Initiative for Snail Farming
			IT Cluster YES4 BIZ - supp by YES incubator
TECHNOLOGY AND SCIENCE PARKS		**TECHNOLOGY AND SCIENCE PARKS**	
Technology Park Zagreb	Technology Park Zagreb	No technology and science parks are existing at the moment.	GDA Digital Media Park
Tehnoloski Park-impulsni centar Varazdin	Tehnoloski Park-impulsni centar Varazdin		Technological Industrial Development Zones: Skopje 1, Skopje 2, Stip and Tetovo
Technology Park Kutina - Impulsni Centar	Technology Park Kutina - Impulsni Centar		Seavus Educational and Development Centre
	Science and Technology Park Rijeka (STEP RI)		
	Industrial Park Nova Gradiska		
BUSINESS-START-UP CENTERS, BUSINESS/TECHNOLOGY INCUBATORS		**BUSINESS-START-UP CENTERS, BUSINESS/TECHNOLOGY INCUBATORS**	
Business Incubator PINS Skrad Ltd.	Business Incubator PINS Skrad Ltd.	Business Start-Up Centre Bitola	Business Start-Up Centre Bitola
PINHK d.o.o.- Entrepreneurial Incubator, Hrvatska Kostajnica	PINHK d.o.o.- Entrepreneurial Incubator, Hrvatska Kostajnica	Ss. Cyril and Methodius University Business Start-Up Centre	Ss. Cyril and Methodius University Business Start-Up Centre
Business Incubator BIOS Ltd. Osijek	Business Incubator BIOS Ltd. Osijek	DENI Incubator Veleš	closed
Entrepreneurship Incubator "Challenge"	Entrepreneurship Incubator "Challenge"	GICA Incubator Ohrid	closed
PORIN d.o.o. Rijeka - "Rijeka Entrepreneurial Incubator"	PORIN d.o.o. Rijeka - "Rijeka Entrepreneurial Incubator"	YES Incubator	YES Incubator
Business Incubator Zadar	Business Incubator Zadar	Biljana Incubator Prilep	closed
Entrepreneurship Incubator OSVIT - Donji Miholjac	Entrepreneurship Incubator OSVIT - Donji Miholjac	Incubator Delčevo	closed
Entrepreneurship Incubator SENJAK Knin	Entrepreneurship Incubator SENJAK Knin	Turtel Incubator Štip	closed
Entrepreneurship Incubator BRODIN	Entrepreneurship Incubator BRODIN	Incubator Saša Makedonska Kamenica	closed
Entrepreneurial Incubator Labin	Entrepreneurial Incubator Labin	Incubator Strumica	Agriculture Business Development Centre Strumica - the only WB incubator left over
	BICRO BioCenter		

KOSOVO (UNSCR 1244)		MONTENEGRO	
2007	**2011**	**2007**	**2011**
INNOVATION CENTRES		**INNOVATION CENTRES**	
No technology/innovation centres are operating in the country.	Centre for Innovation and Technology Transfer	No innovation centres are operating in the country.	European Information and Innovation Centre
			R&D Service Centre at the University of Montenegro
CLUSTERS		**CLUSTERS**	
Livestock Cluster	closed	No clusters are operating in the country.	Meat processing cluster initiative
Milk Production cluster	closed		
Construction Materials Cluster	closed		
	Fruits and Vegetable Cluster		
TECHNOLOGY AND SCIENCE PARKS		**TECHNOLOGY AND SCIENCE PARKS**	
Industrial Park in Drenas (IPD)	Industrial Park in Drenas (IPD)	No technology and science parks are existing at the moment.	No technology and science parks are existing at the moment.
BUSINESS-START-UP CENTERS, BUSINESS/TECHNOLOGY INCUBATORS		**BUSINESS-START-UP CENTERS, BUSINESS/TECHNOLOGY INCUBATORS**	
Business Incubator Shtime	closed	Business Start-Up Centre Bar	Business Start-Up Centre and Incubator Bar
Business Start-Up Centre Kosovo	Business Support Centre Kosovo (new name)	Business incubator Podgorica	closed
Business Incubator Decan	closed		Business incubator Berane
Business Incubator Mitrovica	Business Advisory Centre Mitrovica North		IT Business Incubator Podgorica Inventivnost
	Business Advisory Centre Mitrovica South		
	Business Advisory Centre Zvecan		
	Genesis Technology Centre		

SERBIA	
2007	**2011**
INNOVATION CENTRES	
Technology Transfer Centre at the University of Novi Sad	Technology Transfer Centre at the University of Novi Sad
Innovation Centre of Mechanical Faculty Belgrade	Innovation Centre of Mechanical Faculty Belgrade
Novi Sad Innovation Centre	currently incorporated into STP Novi Sad
Innovation Centre for Information Technologies, Faculty of Mechanical Engineering, University of Nis	Innovation Centre for Information Technologies, Faculty of Mechanical Engineering, University of Nis
	Innovative Centre for Information Technologies, Faculty of Mechanical Engineering, University of Kragujevac
CLUSTERS	
Serbian Automotive Cluster	Serbian Automotive Cluster (AC Serbia)
Rubber and Plastic Cluster - JATO	Rubber and Plastic Cluster - JATO
Wood Processing	Wood Processing - strong
Balkan Small Agricultural Machinery Cluster - BIPOM	Balkan Small Agricultural Machinery Cluster - BIPOM
Sumadija Flower Industry -"Sumadijski cvet"	Sumadija Flower Industry -"Sumadijski cvet"
Serbian Software Cluster	ICT Network (embedded.rs plus Serbian Software Cluster)
Shoe Production Industry Cluster, Knjaževac	Shoe Production Industry Cluster, Knjaževac
"Eko krug" Waste Cluster	"Eko krug" Waste Cluster
"Istar21" Turistic Cluster of Danube region and North Serbia	"Istar21" Turistic Cluster of Danube region and North Serbia
"Pekos" - Bakery Cluster	"Pekos" - Bakery Cluster
Turistic Cluster (Municipality of Kraljevo)	Turistic Cluster (Municipality of Kraljevo)
Cluster "Memos" - metal producers association for improvement of competitiveness	Cluster "Memos" - metal producers association for improvement of competitiveness
Agrobio Niš Cluster, Cluster for organic production	Agrobio Niš Cluster, Cluster for organic production
South Serbia Alco Cluster	South Serbia Alco Cluster
Construction Cluster Dundjer	Construction Cluster Dundjer
Netwood Cluster - producers of furniture	Netwood Cluster - producers of furniture
	Vojvodina ICT Cluster
	Agroindustrija
	Cluster House
	Cluster Sombor Farms
	Creative Industries of the AP of Vojvodina (KKIV)
	Fashion and Clothing Industry Cluster of Serbia (FACTS)
	GALENIT - Cluster for the Collection and Recycling of Used Batteries and Accumulators
	Medical Tourism Cluster
	Nis Cluster of Advanced Technologies (Ni-CAT)
	PHOENIX-Serbian Aeronautics Cluster Ltd.
	RE: Crafts - Cluster for Revitalization of Traditional Crafts in Serbia
	Serbian Association of Food Manufacturers POLUX
	Serbian Film Association
	Textile Association ASSTEX
TECHNOLOGY AND SCIENCE PARKS	
"Mihajlo Pupin" Institute - Science and Technology Park	"Mihajlo Pupin" Institute - Science and Technology Park
Institute Vinča - Belgrade	Institute Vinča - Belgrade
Technological Park in the Region Podrinje-Kolubara	closed
Technology Park Kraljevo	closed
	Science&Technology Park Novi Sad (STPNS)
	Science & Technology Park Niš
	Science & Technological Park Zemun (IHIS)
BUSINESS-START-UP CENTERS, BUSINESS/TECHNOLOGY INCUBATORS	
Business Start-Up Centre Kragujevac	Business Start-Up Centre Kragujevac
Business Incubator Centre Niš	Business Incubator Centre Niš
Business Incubator Knjaževac	Business Incubator Knjaževac
Business Incubator Zrenjanin	Business Incubator Zrenjanin
Business Incubator Subotica	Business Incubator Subotica
Business Incubator Bor	Business Incubator Bor
Business & Technology Incubator of Technical Faculties Belgrade	Business & Technology Incubator of Technical Faculties Belgrade
BIC Kikinda - Vojvodina	closed
Business Incubator Kruševac	Business Incubator Kruševac
Business Incubator Valjevo	closed
Business Incubator Smederevska Palanka	closed
Business Incubator Center Užice	Business Incubator Center Užice
Business Incubators in South Serbia (Vranje, Bujanovac, Medvedja)	Business Incubator in South Serbia (Vranje)
	Business Incubator Szenta
	Business Incubator Novi Sad - belongs to STP Novi Sad
	Business Incubator Boljevac
	Business Incubator Čačak
	Business Incubator Kladovo
	Business Incubator Centre Zajecar
	Incubator Centre for Entrepreneurship Development in Raca

Report was published
in the frame of an FP7 funded project
WBC-INCO.NET

Web: http://www.wbc-inco.net

Report published by:

Centre for Social Innovation (ZSI)
Linke Wienzeile 246
1150 Wien, Austria

Web: http://www.zsi.at