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Abstract	This document sets the main ICT related funding opportunities currently accessible from the Western Balkan region. The main objective of the deliverable is to document the relation between critical existing needs of the ICT RTD system in the Western Balkan Countries (WBC) and the currently available funding programs. In detail, it focuses on the correspondence between these two components: the needs and the offer (e.g. need to support young ICT researchers through the specific Marie Curie Initial Training Networks).
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EXECUTIVE SUMMARY

The present deliverable intends to document the relation between existing crucial needs of the RTD system in the Western Balkan Countries (WBC) and the current available funding programmes addressing the Information Communication Technologies (ICT).

The deliverable is developed within the FP7 ICT action WINS-ICT “Balkans Countries Inco-Net Support in the field of ICT” and it is based upon the work done in 2007 and 2008 by the FP6 project “SEE-SCIENCE.EU Information Office of the Steering Platform on Research for the WBC” which led to the development of a first Cooperation – Opportunity Matrix matching specific needs and funding offers¹. Also further findings and results of similar FP initiatives (GREAT –IST, SCORE, IS2WEB, WBC-INCO.NET, SEE-GRID, etc) were also considered in order to verify which major specific RTD needs are still actual, and thus suitable for being addressed through funding instruments open to WBCs. The Matrix was again considered as the most appropriate way to show the correlation between the major specific needs of the WBCs in RTD and, on the other hand, the different funding programmes (i.e. the need to support young ICT researchers through the specific Marie Curie Initial Training Networks), as well as the combinations of instruments that are possible to apply. The programmes’ objectives, budgets, and funding conditions are also duly described in the document.

The deliverable intends to serve as a useful handbook for:

- 1) Universities, research institutes, single researchers, ICT industry stakeholders, etc. seeking appropriate funding for their research,
- 2) WBC and EU policy makers in charge for defining strategies and initiatives to improve EU-WBC research cooperation by addressing the needs and hindering factors,
- 3) Supporting organisations, intermediaries, NGOs, NCPs, Agencies, etc. offering information on RTD funding sources.

It namely tackles the following two main issues:

- 1) How the Community instruments can best complement each other for developing ICT research support mechanisms, and which bridges can be built to achieve optimal synergies between them.
- 2) How the efficiency of the European and international mechanisms can be improved for supporting the ICT WBC research and business community,

The corresponding results and recommendations are discussed within the fourth chapter “Conclusions”.

¹ SEE-SCIENCe.EU D.11 “Needs/Offers Matrix and Analysis (February 2008) - Specific Support Action n. 031770 FP6 INCO

1 INTRODUCTION

1.1 The Western Balkan Countries context

Even though the current situation of the WBC is still profoundly affected by the political and military conflicts of the past and the difficult transition period, it must be acknowledged that all countries have undertaken strong efforts and made significant progress in implementing substantial institutional and legislative reforms. At the moment in all those countries there is a strong belief of the importance of S&T and High Education as pre-requisites for the development of a knowledge-based information society.

The WBCs today are well on their way to joining the European Union. Croatia already entered in negotiations with the EU about accession, while the Former Yugoslav Republic of Macedonia achieved the official candidate status for EU accession by the end of 2005. Albania, Bosnia and Herzegovina (Bosnia and Herzegovina), Montenegro, Serbia and Kosovo under the UN Security Council Resolution 1244 are potential candidates for accession.

The process launched by the Zagreb summit in 2000 was given a strong new momentum at the Thessaloniki European Council (19-20/6/03), which endorsed “*The Thessaloniki Agenda for the Western Balkans: moving towards European integration²*” aiming at further strengthening the privileged relations between the EU and the WB, also drawing from the enlargement experience. The Union’s thus enriched the Stabilisation and Association Process will remain the framework for the European course of the WBC all the way to their future accession. Moreover, the EU-Western Balkan Summit (Thessaloniki, 21/6/03) stressed once again that the future of the Balkans is within the European Union and highlighted the need for regional cooperation in Research, Technology and Development of which the ICT is one of the key sectors. Along this direction, the IST Programme of the 5th and 6th Framework Programmes for Research and Technological Development opened up to the Western Balkan countries resulting in a number of projects involving partners from the region (e.g. ISIS, TRISTAN-EAST, GREAT-IST, IS2WEB, ELLECTRA-WEB, SCORE, SEEREN 2, SEE-GRID2). The overall perspective as laid down by the Zagreb Summit remains valid: the status of ‘potential candidate’ is offered to the WBC on the basis of the criteria defined at the Copenhagen European Council and the progress made in implementing the Stabilisation and Association Agreements (SAA).

An Action Plan on RTD elaborated following the Thessaloniki summit among the EU Member States, Candidate and Western Balkan countries, has **identified how research could**

² http://ec.europa.eu/enlargement/enlargement_process/accession_process/how_does_a_country_join_the_eu/sap/milestone_en.htm

contribute to the economic development and to enhance the integration of the Western Balkans in the European Research Area.

The WBCs have actively participated in the most important EU projects in the R&D area (FP6, FP7, COST, EUREKA, etc.) and their participation also has been increasing in recent years, with numerous bilateral, regional and international projects in various fields.

1.2 Background and objectives of the study

1.2.1 Project background

The present study was conducted in the frame of the project: WINS-ICT “Western Balkans Countries Inco-Net Support in the field of ICT” which is financed under the 7th European Framework Programme for Research Technological Development (RTD).

The WINS-ICT project (www.wins-ict.eu) intends to contribute to the Commission’s priority to extend future EU-Western Balkan RTD co-operation by promoting WBC involvement in the ICT programme at multiple levels, comprising support to the regional and bi-regional dialogues, capacity building at the regional and national levels, and targeted dissemination strategies.

The project moves forward in a threefold approach involving:

1. the consolidation of national cooperation priorities and improvement of research capabilities in ICT areas identified as relevant for economic and social development;
2. the alignment of national ICT policies at the regional level, leading to an improved political dialogue between the EU-WBC and setting the basis of a closer match between the future ICT Work Programmes with the priorities and needs of the WB region;
3. and additional support for increasing the visibility of the WBC ICT research potential in the EU, the forging sustainable networks between EU-WB researchers and the building of FP7 participation capacity amongst the WB ICT research community;

with the ultimate aim to fully integrate researchers from the region into networks of FP-active EU organizations, and enable their related research organisations to submit project proposals as coordinating institutions, if willing.

In such a framework, beside the other project activities, WINS-ICT revised previous works and project results, in order to provide a valid correlation between the actual and crucial ICT RTD needs of the WBCs with the different funding programmes accessible by these countries. The result of this exercise is the present deliverable which also considers applicable combination of instruments.

1.2.2 Objectives

As previously mentioned, this deliverable correlates existing needs of the ICT RTD system in the WBCs with the currently available funding programmes.

It is moreover conceived as a practical handbook for:

- Universities, research institutes, single researchers, ICT industry stakeholders, etc;
- WBC and EU policy and decision makers;
- Supporting organisations, intermediaries, NGOs, NCPs, government agencies, etc;

who shall benefit from the information and analysis contained for identifying the best research activity funding instruments, for offering ad-hoc information on the RTD founding sources, for developing strategies and initiatives intended to improve the EU-WBC research cooperation by properly addressing the needs and hindering factors.

The main goal of this deliverable is thus to analyse to which extent the WBCs needs can be covered by actual funding offers, where the main gaps lay, and on the other hand where are the areas for further improvements.

In particular the objectives are to:

- explore and find best synergies and complementarities between the regional, national and European level funding opportunities supporting the ICT RTD field and currently accessible by the WBCs , taking into account also the subsidiary principle;
- identify future ways for improving existing innovation support schemes or developing new instruments and approaches, by mutual learning and trans-national cooperation, so as to support the ICT WBC research and business community.

1.3 Methods

The document bases upon and revises principally the work done by the Information Office of the Steering Platform on Research for the WBC (FP6 project SEE-SCIENCE.EU) in 2007/2008 which led to the development of a first Cooperation – Opportunity Matrix matching specific needs and funding offers³.

Other studies and statistical surveys carried out in the frame of other similar FP actions (GREAT –IST, SCORE, IS2WEB, WBC-INCO.NET, SEE-GRID, SEE-ERA.NET, etc) have focused on the needs of the ICT RTD systems of the WBCs⁴, these further results were additionally considered (see list of acknowledgements, page 124), in order to verify which major specific RTD needs are still actual, and thus suitable for being addressed through funding instruments open to WBCs.

³ SEE-SCIENCE.EU D.11 “Needs/Offers Matrix and Analysis (February 2008) - Specific Support Action n. 031770 FP6 INCO

⁴ Other project sources consulted and used are precisely ISIS, TRISTAN-EAST, GREAT-IST, IS2WEB, ELLECTRA-WEB, SCORE, WBC-INCO.NET, SEE-GRID projects

As far as the presentation of data correlations is concerned, the Matrix was estimated as the most appropriate way to match the specific ICT RTD needs with the existent accessible funding programmes for the WBCs.

These two components were therefore set into a matrix showing mutual correspondence factors (ranging from full correspondence of one need with one programme (*****) to no correspondence but positive effects possible (*) used in order to qualify the relation.

In addition, as the impact of funding programmes depends very much on the programme budget availability, the matrix also includes a set of quantification factors showing the programme budget in scale of € as well as the average project budget in scale of €.

This set of qualification and quantification factors permits to discuss following aspects:

- Is there any correspondence between eminent needs and current funding programmes?
- To which extent do the funding offers respond to the needs and demands of the ICT RTD system?
- Where are the main gaps and in which areas are further improvements possible?

To complete the information provided, it was considered appropriate to briefly describe for each programme its objectives, budgets, and funding conditions in order to use it as a stand alone handbook for the target group.

1.4 Document structure

After the introductory chapter, the document is structured as follows:

Chapter 2: provides a succinct overview of the respective ICT RTD needs of the WBC with reference to the causes and national peculiarities. A brief overview of the funding programmes suitable to tackle each particular need further complete the section.

Chapter 3: Focuses on the different funding programmes by describing the objectives, timetable and measures of the main EU instruments supporting ICT. This chapter also examines the issue of complementarity between the main European and international initiatives and discusses how these complementarities can be achieved in an operative and effective way, or how the existing complementarities can be achieved more efficiently without unnecessary overlapping.

Chapter 4: contains the conclusions and summarizes the matrix results stating what are the most appropriate funding offers for addressing the specific needs. It moreover makes a set of proposals to further enhance the European instruments in support of R&D and innovation; and in particular makes a set of recommendations that could be taken up by the partners and stakeholders involved in WINS-ICT network activities.

So there are two ways to approach the study, either to focus on a specific need or to focus on the different funding programmes. Accordingly chapter 2 introduces the needs and chapter 3 discusses the funding programmes.

1.5 Cooperation - Opportunities Matrix

As mentioned above the Cooperation – Opportunities Matrix matches the specific ICT RTD needs with the existent accessible funding programs for the WBCs. It moreover shows for each need and funding offer the level of the mutual correspondence factor, as well as the programme budget available.

More details as to the correspondence and available budget scales are in the next paragraphs.

1.5.1 Correspondence factors

***** Main objectives of the funding programmes address the needs to 100%

Budget dedicated to 100%

**** Main objectives of the funding programmes address the needs to 75%

Budget dedicated to 75%

*** Main objectives of the funding programmes address the needs to 50%

Budget dedicated to 50%

** Main objectives of the funding programmes address the needs to $\leq 25\%$

Budget dedicated to $\leq 25\%$

* Objectives of funding programmes do not meet the specific need but spill-over effects are possible

Objectives to do not match at all

1.5.2 Amount of budget

Programme budget/Average project budget

€€€€€	500.000 – 1 million euro and more
€€€€	300.000 – 500.000 euro
€€€	100.000 - 300.000 euro
€€	50.000 – 100.000 euro
€	up to 50.000 euro

Table 1.1 provides a summary of ICT RTD needs and programme offers.

Table 1: Cooperation – Opportunities Matrix

ICT RTD NEEDS	Budget on programme level / per project	Upgrading research infrastructure.	Upgrading e-infra	Regional RTD Cooperation	Priorities Research Areas	Brain drain - Brain waste	Mobility of Researchers	Transformation of universities to research institutions	Support basic research	Support applied research	Connection basic to applied research	Enhancement of RTD capacities of SMEs	Harmonisation / EU standards	Research career development	Institution building
FP7 COOP.	éééé/éééé		**	**	***		*		**	**	****	**			
FP7 IDEAS	éééé/ééé				***				*****					****	
FP7 PEOPLE	éééé/éééé					*****	***		**		****	**		*****	
FP7 CAPACITIES	éééé/éééé	****	**	**			*					****			****
CIP	éééé/éééé									****		*****			
IPA	éééé/éééé	**	*****	****									****		**
COST	éééé/éé				****		****		****						
EUREKA	éééé/éééé				****					****		*****			
EUROSTARS	éééé/éééé									**		*****			
JRC	éééé/é						*								
SEE ERA-NET PLUS	éééé/éé			****	**		**		**						
EIB	éééé/éééé	****	**				*					**			
European Territorial Cooperation Objective	éééé/éééé			****	****				**	**		**			****
TEMPUS IV	éééé/éé	**		****			*	****							**
LIFE LONG LEARNING	éééé/éé		*	****			*	****							
ERASMUS MUNDUS	éééé/éé					**	**							*	
UNESCO	éééé/é	****	****	****			*	****							
BILAT S&T	éééé/é	**			***		****								
NATIONAL UNILATERAL S&T	éééé/é			****	**				**						
NATIONAL UNILATERAL INNOVATION	éééé/é			**			**			*****	*****	****			
WORLD BANK	éééé/éé	**		****				**							
NATO SPS	éééé/éé		****	**	**		*		*****						

2 NEEDS

In previous studies ICT policy makers and key players of the WBC RTD systems a number of needs have been identified (see acknowledgements, page 124). The scope of needs is a product of different starting conditions showing that WB is not homogenous in its RTD systems.

Due to the fact that the recent political and economic crises of the countries in the region affected dramatically their RTD capacities, there are some urgent priorities to be taken in high consideration. Moreover, the historical background has to be considered: the change from almost exclusively state directed economies and research capacities to market economies; the exceptional reduction in national expenditures on RTD; the loss of critical mass due to the formation of new states; and the simultaneously important brain drain.⁵

A fundament need to be underlined is the lack of **public and private funding for RTD**. Compared to the total national GDP, the public contribution in the Western Balkans is still very low: between 0.05% in Bosnia and Herzegovina, around 0.2 and 0.3% in the other countries and approximately 1% with the highest share in Croatia. Those data show the urgent need for a stronger national strategy favourable for RTD development and funding that should include the establishment of funding instruments, stronger synergies between national RTD programme and the different EU programme for WB: 7th Framework programme, Instrument of pre-accession and all the EU programme where the participation of the Western Balkans is foreseen.

2.1 Renewal and upgrading of research infrastructures

2.1.1 Background

The term “research infrastructure” corresponds to the set of all devices, equipments, tools facilities being at the disposal of the research community to conduct research activities on a competitive and advance level. R&D infrastructure in many countries was much better and more modern prior to 1990 than it is currently. In order to fulfil national economic and social needs more effectively, as well as to strengthen the performance and increase the attractiveness of the academic institutions in the WBC, research infrastructure (not only in the field of ICT) in the higher education sector, at scientific institutes and technology parks needs to be further improved on a constant base.

⁵ “An Enlarged Europe for Researchers” ftp://ftp.cordis.europa.eu/pub/era/docs/mobility_conf0601.pdf

Regional cooperation allows sharing knowledge and ideas, developing better and more innovative products and solutions. One of the main reasons for regional cooperation is the fact that all WBC have a lack of infrastructure which can be avoided by cooperation.

In general terms, this involves the **development of existing research infrastructures as well as the creation of new research infrastructures**. Additional emphasis should be given to the creation and consolidation of scientific networks (see next chapter).

In view of integration into the European Research Area, **updating and improving the S&T infrastructure** of the WBCs so as to optimise the existent capacities, should be a central mission as stressed by both the “Needs Analysis Report of the Western Balkan countries” of the Southeast European ERA.NET (SEE-ERA.NET) initiative, and by the establishment of a Working Group on Regional Issues under the European Strategy Forum on Research Infrastructures (ESFRI). A report by WBC-INCO.NET is prepared to show the potentials of WBC research infrastructures and their availability for international cooperation.

2.1.2 *Country specification*

✓ Albania

General upgrading and renewal of physical research infrastructure is important. In addition, the development of the new research centres on local and regional levels as well as building new technology parks is of importance in order to catch up with international developments and in order to trigger the “spill over” effect of innovation clusters and start-up companies on the ICT RTD system. Lack of up-to-date research infrastructure is a major problem.

✓ Bosnia and Herzegovina

Renewal and restructuring of research facilities and revitalisation of scientific institutions and research capacities is of utmost importance to the country. Highest priority is adequate research infrastructure for technology parks and research centres.

✓ Croatia

Researchers are satisfied with the available research infrastructure. The country hosts some important research institutions at the public and private level especially in telecommunication technologies (Ruđer Bošković Institute, Ericsson Nikola Tesla d.o.o., Faculty of Electrical Engineering and Computer Science in Zagreb, Faculty of Computer Science in Varaždin, CARNet).

✓ FYR of Macedonia

The country has some potential centres of excellence (Biotech and genomics), regarding ICT in Engineering Seismology or in Geographic Information System which require substantial investment to upgrade and renew infrastructure.

✓ Montenegro

It is a small country with few research institutes. According to the survey on the National Systems of Research and Development in the Western Balkan Countries (compiled for the purposes of the SEE-ERA.NET Consortium), existing scientific infrastructure in Montenegro has a number of weaknesses, e.g. a lack of adequate premises for laboratories and libraries, poor financial standing of research projects, a lack of interest for studies where experimental

research is obligatory e.g. engineering, and old and inadequate equipment. A lack of financial resources, as well as the international sanctions prevented an update of technical equipment and foreign imports were impossible, therefore further preventing advancement. Montenegro specifically supports the integration of ICT in the educational process.

✓ Serbia

During the past 20 years, the research community in Serbia has been facing serious problems considering lack of financial and political support. Little investment was made in research infrastructure in Serbia during the 1990s, recently existing technical equipment has been modernised in research institutions to some extent, with ICT being one of the major sectors. The creation of high-tech clusters and spin-offs is the result of self-initiatives rather than result of national strategies and policies.

✓ Kosovo under UN Security Council Resolution 1244

International support is focused on other priorities and as national RTD investment remains low (a strategy to increase investment is currently being developed), therefore research infrastructure is rather old and outdated. The University of Pristina is the only public research institution in the country, but the set-up of an IT university is being discussed.

2.1.3 Correspondent funding programmes

✓ FP7 : Specific Programme: Capacities/Research Infrastructure : *****

The development of a European approach with regard to research infrastructures, including computing and communication based e-infrastructures, and the carrying out of activities in this area at a European level, can make a significant contribution to boosting European research potential and its exploitation, as well as to reinforcing European research communities.

Under this funding line, the use and development of RTD infrastructure is optimised for international cooperation. ESFRI (European Strategic Forum for Research Infrastructure)⁶ was launched to support a coherent and strategy-led approach to policy-making on research infrastructures in Europe, and to facilitate multilateral initiatives leading to the better use and development of research infrastructures, at EU and international level.

The following lines of actions will be covered through calls for proposals (July 09 to January 10):

INFRA-2010-1.1.30: Research Infrastructure for advanced spectroscopy, scattering/diffraction and imaging of materials. *A project under this topic should aim at integrating the key research infrastructures in Europe offering electronic, X-ray, optic and magnetic inspection techniques, and their combinations, for the analysis and engineering of new materials. Such infrastructures would allow the detailed understanding and optimization of physical, chemical and biological materials and processes, using advanced spectroscopy, scattering/diffraction and imaging techniques.*

⁶ <http://cordis.europa.eu/esfri/home.html>

For the topic in 1.1.2 ICT-based e-Infrastructures please see the following 2.2

✓ FP7 : Specific Programme: Capacities/Research Potential : *****

A specific call (FP7-REGPOT-2010-5) has been dedicated to the WBC with the possibility to support research equipment and infrastructure in early 2007 and another one was launched in July 2009 (deadline October 15, 2009). The call is not specific to the field of ICT but presents a strong possibility for RTD institutions in this field. The budget of the call is 8 million Euros, the EC contribution to one project is expected to be between 1-2 million Euros. Furthermore, a call (FP7-REGPOT-2010-1) is open for all convergence regions and outermost regions which include also all regions of Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Montenegro, and Serbia. The budget call is euro 31million. The Community contribution envisaged for Coordination and Support Actions (Support Action (CSA-SA)) will be up to 4 million Euros. Deadline is December 17, 2009.

On the grounds of the past experience, the *Research Potential* action will focus on *high quality research entities of significant scientific size*⁷ to ensure the highest impact of the Community intervention. These research entities, public or private, should demonstrate a high quality of human, material and organisational capacity, allowing hosting several new experienced researchers and engineers from the country concerned and abroad. Their research potential increase will be realised in *close cooperation with at least 3 European outstanding research 'partnering organisations'* in the same S&T domain or in a complementary field.

✓ IPA : **

RTD has been taken up into the Instrument for Pre-Accession Assistance (IPA) programme⁸ as a focus area of support. Investment in research infrastructure is generally possible in the IPA programme. Programming IPA is mostly done on national basis and here strong coordination is needed. The use of research infrastructure to fulfil other obligations towards EU accession (e.g. measurement) could help to mobilise further investment in this field. Nevertheless, most of the financial means available will go to other national priorities.

✓ EIB Innovation 2010 : *****

The European Investment Bank supports the development of ICT research centres in the WBC.

✓ TEMPUS IV : **

The programme focused on supporting tertiary education systems, therefore only small scale of funding is provided for purchase of computers and teaching materials.

⁷ Such as University Departments, Faculties, specialised Research Institutes or important size research laboratories with at least 10 permanent experienced researchers

⁸ IPA is the Community's financial instrument for the pre-accession process for the period 2007-2013. Assistance is provided to potential candidate countries and candidate countries, which means the Western Balkan countries and Turkey. It was established by Council Regulation (EC) No 1085/2006 of 17 July 2006.

✓ UNESCO :****

Upgrading and renewal of RTD infrastructure is one the core objective, the sector ICT is also considered.

✓ World Bank :***

The Bank's strategy includes also ICT infrastructure (data and software).

✓ Bilateral S&T agreements :***

Only FYR of Macedonia supports the purchase of small-scale RTD equipment.

2.2 Upgrade of information- and e-infrastructure and internet connection

2.2.1 - Background

“e-Infrastructure” is the term used for the technology and organisations that support research undertaken in this way. It embraces networks, grids, data centres and collaborative environments, and can include supporting operations centres, service registries, single sign-on, certificate authorities, training and help-desk services. Most importantly, it is the integration of these that defines e-infrastructure. In *eScience*, computer simulation and knowledge extraction from unprecedented amounts of data help to address scientific and global challenges of enormous complexity and scale. These ICT-based environments empower researchers by offering them access to facilities and resources regardless of their location. They foster the emergence of new working methods, based on the shared use of resources across different disciplines and technology domains enabling sustainable collaboration and partnerships between researchers in 'virtual research communities' in all e-Science fields.

E-Infrastructures include high-capacity and high-performance communication networks (GÉANT), grid-empowered resource sharing infrastructures and supercomputing facilities, combined with scientific application software, data repositories and advanced visualisation. The further development and adoption of e-Infrastructures requires structured interaction between computational scientists and ICT engineers and an ever broader range of scientific disciplines as well as catering for the specific needs of scientific and industrial user communities.

The **WBC research system** is in specific need of **improving their electronic networks** for RTD, their information infrastructure (access to scientific journals and e-libraries). Often, universities libraries lack funds to subscribe to international journals. Low level of inter-connectivity between libraries of different institutes and faculties, default catalogue systems etc. prevent thorough diffusion of information resulting that the availability of material and information is often not known among researchers.

2.2.2 *Country specification*

✓ Albania

The information infrastructure is inadequate and the access to international journals is insufficiently developed. The SEREEN network connected Albania to GEANT reserved specifically for research and education use⁹, the second phase of SEEREN ensured further connectivity of various Albanian research institutions.

✓ Bosnia and Herzegovina

The connection to GEANT was provided by national research and education network BIHARNET, which was in some function until the end of 2000 when international and inter-city connection, due to lack of financial resources, was disconnected. From January 2007 onwards a new cross-border dark fibre cable provides high speed internet connection for the research community in Bosnia and Herzegovina. This initiative is part of the South-Eastern European Research and Education Network (SEEREN2) and a result of monthly efforts of all the Bosnia and Herzegovina partners and the National Research and Education Network of Greece (GRNET) and Serbia (AMRES) (SEEREN2 Project 2007). The Republic of Srpska's academic research network, SARNET, was officially connected to the European academic and research network, GEANT, in December 2006. The upgrading of information infrastructure is key priority.

✓ Croatia

The Croatian e-infrastructure is well established and linked to GEANT through CARNET¹⁰ and offers adequate access to scientific databases to the national research community (covering over 240 member institutions from the academic communities, over 1350 member institutions from the educational system and over 1500 connected locations to the CARNET network). The Scientific Information System (SIS) organises and finances the design of an information system, allowing any member of Croatia's academic and research community to get scientific and research information. Furthermore, the SIS supports the on-line database centre (Internet access to commercial reference databases) and CROSBI (Croatian Scientific References – data on scientific papers published by Croatian scientists).

✓ FYR of Macedonia

In 2006 the Ministry of Education and Science signed an agreement for national access to the electronic scientific database (SCOPUS), which is available in all faculties at state universities. MARNET provides international and national networking services. The connection to GEANT should be strengthened. The Government of Macedonia and the Ministry of Information Society have granted subsidies to the private sector so that the rural areas can enjoy the same ICT services as the more urban areas. The grants will provide

⁹ Institute of Informatics and Applied Mathematics INIMA is the Albanian partner in the SEEREN project

¹⁰ <http://www.carnet.hr/en>

citizens in rural areas with free internet access, available through the internet kiosks, over the next four years. The Internet kiosk will be installed in each of the selected Wi-Fi points, around 680, along with one computer and a wireless antenna with a range of 200 meters.

✓ Montenegro

MREN¹¹ connects Montenegro to GEANT. The insufficient national financial support and the low level of library documentation remain one of the main obstacles for RTD in Montenegro. A new system of mutual categorisation among the Montenegrin libraries was established in December 2001 using the COBISS system, as well as a mutual bibliographic base (COBIB CG), combining the local University Library, and the Central National Library of Montenegro. Some of the faculty libraries have local systems for computerized documentation, so their databases cannot be reached through the internet. The University of Montenegro possesses an academic computer network, maintained and developed by the Centre of Information System (CIS), which provides internet connectivity. However, the CIS equipment ought to be improved; presently, the communication infrastructure between the CIS server and the units is based on an optical fibre with low speed communication through copper twisted pairs.

✓ Serbia

Connections to GEANT networks are ensured through AMRES¹², the Academic Network of Serbia (national research and education network). AMRES participated in numerous FP6 and FP7 research network and grid support actions (e.g. SEEGRID, SEEFIRE, etc) – similar to other academic networks in the region. It is under the authority of the Ministry of Telecommunication and Information Society. The Government provides in long periods constant financial and other necessary support to the academic network. The Serbian research community is also quite well equipped with national funding available for the subscription to international journal. AMRES is the most advanced network in Serbia with over 150 connected institutes and more than 100.000 active users.

✓ Kosovo under UN Security Council Resolution 1244

In the development of e-infrastructure and networks Kosovo (UN Resolution) still has to catch up with the region.

2.2.3 *Correspondent funding programmes*

✓ FP7 : Specific Programme: Cooperation/ICT: **

FP6 and FP7 supported several projects to tackle this need, e.g. SEEREN and SEEREN2 (South-East European Research and Education Networking) expanding the European research

¹¹ <http://www.mren.ac.me/index.php>

¹² <http://www.amres.ac.rs/>

network in South-East Europe by providing GEANT connectivity to non-GEANT countries; SEEGRID and SEEGRID2 providing specific support actions to pave the way towards the participation of the SE European countries to the Pan-European and worldwide Grid initiatives; SEEFIRE (South-East Europe Fibre Infrastructure for Research & Educational) producing studies on the options available for network infrastructure and the strategies for the development of research and education networking in southeast Europe.

✓ FP7 : Specific Programme: Capacities/Research Infrastructures: ***

A strategic approach both for existing and new research infrastructures will be continued in 2010. The following lines of actions will be covered through calls for proposals:

- *Support for existing research infrastructures*

Through *Integrating Activities*, based exclusively on a targeted approach, with thirty five topics from all fields of science and technology as detailed in the next section (Call 2010-1) and through the *e-Infrastructures* activity with three topics on "Distributed computing infrastructure", "Simulation software and services" and "Virtual Research Communities (Call 2010-2);

- *Support to policy development*

ERA-NET (Call 2010-1) and *Studies, conferences and coordination actions* (Call 2010-1 and 2010-2) in this work programme support the coordinated development and networking of infrastructures and foster the emergence of new research infrastructures of pan-European interest within a medium to long term vision. These infrastructures must contribute significantly to the development of European research capacities. The amount of the budget is Euros 10 million for the 2010 call (deadline 24 November 2009).

- *ICT-based e-Infrastructures*

The e-Infrastructures activity supports a number of interrelated topics designed to foster the emergence of a new research environment in which 'virtual communities' of scientists and engineers are empowered to share and exploit the collective power of the European ecosystem of scientific and engineering facilities. Such topics in 2010 include the deployment of sustainable service provisioning schemes of core e-Science distributed computing infrastructures; further development, deployment and evolution of software and simulation infrastructures and services; and expansion of e-Infrastructures to address the specific needs of new scientific and engineering communities (including in the area of social sciences and humanities). Projects must implement (i) *Networking Activities*, (ii) *Service Activities* and (iii) *Joint Research Activities* in a closely coordinated manner following the Integrated Infrastructures Initiative model. The amount of the budget is 85 million Euros for 2010 call (deadline 24 November 2009). Applicable funding schemes are a combination of *Collaborative Projects* and *Coordination and Support Actions*.

INFRA-2010-1.2.1: Distributed computing infrastructure (DCI)

The main objective is to set up an organisation that will enable the sustainable provision of grid services to the European scientific community. The proposal should cover all strategic, policy, technical, financial and governance aspects.

INFRA-2010-1.2.2: Simulation software and services

Scientific application software is a key enabler of eScience and a fundamental element of e-Infrastructure. It allows to replace traditional experimentation, which is often impossible or undesirable, for "*in silico*" experimentation in order to address major scientific, industrial and social challenges, from climate change to design of aircraft. Multi-disciplinary and multi-scale simulation will be one of the major challenges of the next decade.

The aim is to integrate scientific application software in the European e-Infrastructure and to ensure that it is able to fully and timely exploit high-performance and distributed computing capabilities.

INFRA-2010-1.2.3: Virtual Research Communities

The main objective is to enable an ever increasing number of users from all science and engineering disciplines and beyond to access and effectively use e-Infrastructures in order to increase their participation in research of global relevance and/or to allow them to access and share facilities, instruments, software and data from wherever they are based.

✓ IPA : *****

WBCs strongly express their needs to introduce the support for RTD infrastructure into the IPA programme.

✓ EIB INNOVATION 2010 : **

The i2i programme support **communications infrastructure** with any suitable technologies: copper (xDSL), cable modem, optical fibre and wireless solutions (UMTS, WiMax). Special focus is put in modernisation and extension of existing networks. Still, as loans are financial models, national and own resources are necessary.

✓ NATO SPS : ****

The programme offer grants for improvement for better use telecommunication facilities.

✓ LIFE LONG LEARNING : *

In transversal programme, the creation and renewal of ICT contents and services is supported. The specific need is not addressed directly, but support for upgrading university networks is possible.

✓ UNESCO : ****

UNESCO support measures to enhance the electronic connectivity between universities in SEE.

2.3 Enhancement of regional RTD cooperation in the ICT field

2.3.1 Background

International integration and regional cooperation is the key to stability and prosperity of the Western Balkan region. Regional cooperation and coordination on all levels of the RTD system help the countries to unite their strengths and have a stronger international voice.

Crucial problems/needs:

- Full integration/eligibility of WBC in international RTD programmes, such as FP7, EUREKA, JRC, etc.
- Stronger focus of international programmes to RTD in WBC (IPA, Regional Cooperation Council, World Bank etc.)
- Renewal of regional and international links between research communities
- Easier mobility of researchers within the region

2.3.2 Country specification

The problems described above reflect the situation in all WBC to different extent.

Considering the fact that in the period of the former Yugoslavia, researchers from this region had been working in one single research area, and bearing in mind that there is no significant language barrier, there are preconditions for **establishment of better regional cooperation**. Cooperation at regional level should be favored because often the same challenges and problems are shared. Even though regional cooperation exists, mostly through EU funded projects, any other support, there is still a clear need for better inclusion of the entire region in the European scientific community.

Especially for Albania, regional integration poses a specific problem which dates back to the times during the communist regime. Albania still faces isolation and needs to overcome this issue more than other Western Balkan Countries.

All countries support international cooperation through strengthening of bilateral agreements, supporting National Contact Point systems for FP7, etc.

2.3.3 Correspondent funding programmes

Stronger regional cooperation is necessary between the different WBCs in order to respond to regionalization trends in the EU and in order to use the power of united efforts. Following programmes specifically support regional cooperation in the Western Balkans:

✓ FP7 : Specific Programme: Cooperation/ICT: **

The ICT specific programme (and IST in FP6) has a long history of funding coordination and support actions which support the regional cooperation (e.g. IS2WEB, SEE-INNOVATION, SCORE, etc.). In FP7 the projects WINS-ICT and ICT-WEB-PROMS have been funded supporting the regional approach. Especially WINS-ICT covers the policy aspect to increase lobbying power and to provide dialogue fora to develop joint measures.

✓ FP7 : Specific Programme: Capacities/International Cooperation: **

The INCO programme supports the regional approach in the Western Balkan countries through the funding of CSAs such as WBC-INCO.NET and SEE-ERA.NET PLUS. Based on work of the INCO-NET project, the ERA-NET has launched a call in 2009 covering the issue of ICT as a priority for funding in the Western Balkans (see below).

✓ IPA : ****

The Multi-Beneficiary part of the IPA programme addresses problems and issues which affect several WBCs.

✓ SEE-ERA.NET PLUS Call : ****

The programme requires cooperation on regional level, cooperation between several WBCs is an evaluation criterion for submitted proposals. The specific priorities for funding in the field of ICT are Software systems for learning process management and support and ICT for energy efficiency.

✓ European Territorial Cooperation Objective (previously known as INTERREG) : ****

Trans-regional cooperation is the cornerstone of the programme.

✓ NATO SPS : **

Also here, projects which address issues important to several partner countries of the NATO SPS are fostered.

✓ TEMPUS IV : ****

The programme fosters regional and international cooperation amongst its partnering regions (such as WBCs) and the EU Member States.

✓ LIFE LONG LEARNING : ***

Through thematic networks and multilateral projects, the programme aims to enforce regional cooperation amongst educational institutions.

✓ UNESCO : ****

UNESCO supports thematic regional networks of research centres in order to enhance the WBCs' research potential across borders and strengthen the position of the whole region of Western Balkans in RTD.

✓ WORLD BANK : ****

Regional cooperation by means of strengthening partnerships with and between regional networks was identified as a cornerstone of the World Bank's strategy of support of WBCs.

✓ NATIONAL UNILATERAL S&T PROGRAMMES : ****

Various national, unilateral S&T programmes support regional cooperation and require collaboration of at least two WBCs in projects.

✓ NATIONAL, UNILATERAL INNOVATION/BUSINESS PROGRAMMES : **

COIN (currently the only national, unilateral programme supporting the involvement of the business sector of WBCs) specifically addresses regional cooperation through its multi-partner participation rules for projects.

2.4 Identification and concentration on priority research areas

2.4.1 Background

The difficult political and economic situation many SEE countries are still facing going hand in hand with a low level of national investment in RTD requires a concentration of forces. Specific and country-focused RTD priorities need to be set. The strategic allocation of RTD budget on some promising and important science and technology fields will facilitate further development and improve performance in these fields. The countries have recognised the driving force of prioritisation of ICT research topics¹³.

In general, following ICT research priorities in WBC have been identified within the SCORE project (www.score-project.eu):

- ICT for Government & e-Government
- ICTs for Enterprises & e-Business
- Internet & Broadband Technologies
- ICTs for Learning & e-Learning
- ICTs for Health & e-Health
- Software Engineering
- Mobile Technologies
- ICTs for Agriculture
- Digital Content & Digital Libraries
- Distributed Systems
- Embedded & Pervasive Systems
- Network Technologies
- Knowledge Technologies

The policy paper: “Shaping EU-Western Balkan co-operation in the field of ICT Research & Development in the period 2008- 2013: Priorities and Recommendations” also provides interesting information and is available on http://www.score-project.eu/attach/D7_POLICY_PAPER_final.pdf.

¹³ SCORE project D7 Policy paper “Shaping EU-Western Balkan co-operation in the field of ICT Research & Development in the period 2008-2013: Priorities and Recommendations. The content of the policy paper is based on the findings of a broad consultation process that involved more than 320 ICT stakeholders in the participating Western Balkan countries (including ICT experts, research actors, policy makers, ICT company representatives, NGO and civil society representatives). SCORE project Policy paper is focusing on Albania, Bosnia and Herzegovina, Former Yugoslav Republic of Macedonia, Serbia (Montenegro and Kosovo under UN Security Council Resolution 1244 were included in the former union of Serbia and Montenegro). Croatia information has been based on .Information about the Society action plan 2007-2010 (Central State Administrative Office for e-Croatia)

2.4.2 *Country specification*

✓ Albania

ICT is defined in Albania as one of the national priorities which was defined in a process of open consultation (together with Human Science and Albanology; Environment and Diversity; Agriculture and Food; Health; Materials; Water and Energy). The newly adopted Strategy of Science, Technology and Innovation (STI in Albania) for the years 2009-2015 (presented June 17, 2009 in Tirana) reinforced the ICT priority as did the newly established Agency for Research, Technology and Innovation, which lends priority to hi-tech, soft- and hardware programming.

The priorities which were identified in the SCORE project for Albania include:

- ICT for Government & e-Government
- ICTs for Enterprises & e-Business
- Internet & Broadband Technologies
- ICTs for Learning & e-Learning
- ICTs for Health & e-Health
- Distributed Systems

✓ Bosnia and Herzegovina

Priorities are focused on the restructuring of the industrial RTD sector and on some specific fields in applied research, like: e-Legislation, e-Education, e-Governance, ICT Infrastructure and ICT Industry, taking into account also latest e-Health (draft of e-Health strategy) and e-Business initiatives in the country. Republika Srpska also pays attention to e-Administration for enabling better, faster and more efficient administration and prepared a draft of the e-Business law.

Priorities identified in the SCORE project also include:

- ICT for Government & e-Government
- ICTs for Enterprises & e-Business
- ICTs for Learning & e-Learning
- ICTs for Health & e-Health

✓ Croatia

In Croatia ICT is recognized among national priorities.

The ICT thematic areas identified by the SCORE project include:

- ICT for Government & e-Government
- ICTs for Enterprises & e-Business
- Software engineering
- ICTs for Learning & e-Learning

✓ FYR of Macedonia

Key aspects of the progress activities in the ICT sector are initiated by MASIT, Centre of Excellence. The ICT thematic areas identified by SCORE include:

- ICT for Government & e-Government
- ICTs for Enterprises & e-Business
- Internet & Broadband Technologies

- Software engineering
- ICTs for Learning & e-Learning

✓ Montenegro

One of the key aspects of the growing ICT sector in Montenegro is the government's commitment towards the ICT field with stability in financing of projects in this field. The Ministry of Information Society is committed to develop ICT in Montenegro (e-Government, e-Health, other services to the citizens, promotion of ICT), but not investment in research projects.

Montenegro has identified these ICT priorities:

- ICT for Government & e-Government
- ICTs for Enterprises & e-Business
- Internet & Broadband Technologies
- Mobile technologies
- Network technologies

✓ Serbia

Key driver of ICT research in Serbia are telecommunication, software and hardware development and media companies that according to the Serbian Investment and Export Promotion Agency there are 1,408 ICT companies.

In the draft of the Science and Technological Development Strategy of the Republic of Serbia under discussion in 2009, ICT is one of the priorities and within following priority topics are defined:

- Embedded systems
- Intelligent sensor-actuators and multi-sensory systems
- Management and control of complex distributed systems
- Informatization and digitalization of libraries
- Telecommunication systems for digital transmission
- Radar and infrared identification and control systems
- Expert systems
- Data safety

Serbia has identified the following priorities in the SCORE project:

- Internet & Broadband Technologies
- ICTs for Enterprises & e Business
- ICT for Government and e-Government
- Software Engineering

✓ Kosovo under Security Council Resolution 1244

Kosovo has identified ICT as a national priority; it will support an IT university in the upcoming years.

2.4.3 *Correspondent funding programmes*

✓ FP7 : Specific Programme: Cooperation : ***

Participation in the Framework Programmes is far from satisfactory due to several reasons.

- FP7 is a highly competitive programme and participants show a high level of RTD performance – for WBC partners often a hurdle
- Lack of international contacts
- European partners lack trust in including WBC partners into consortia
- Priorities covered by FP7 are not always in the areas of strengths of the WBC.

Projects such as WINS-ICT, ICT WEB PROMS, SCORE and WBC-INCO.NET supported the region in priority setting exercises and also in strengthening specific areas.

✓ FP7 : Specific Programme: Ideas : ***

Pioneer, basic research is funded with the possibility of WBC researchers to get involved into executive research teams. The areas of research are completely open, scientific excellence is the sole criteria, which needs to necessarily meet the priority objectives of Western Balkan Countries.

✓ COST : ****

This programme supports the creation of international RTD projects in different basic research areas of rather open topical priorities. Still, it is limited to fund only meetings and coordination activities (workshops, conferences etc) within the project, whereas RTD activities need to be financed by different means other than COST.

✓ EUREKA : ****

The programme offers a platform for market-oriented, applied research activities. The funds come from national budgets of the EUREKA Member Countries (Croatia, FYR of Macedonia, Serbia; other WBC currently have NIP status in EUREKA).

✓ SEE-ERA.NET PLUS Call : ***

The current call addresses thematic areas specifically important to WBC RTD in ICT (research subjects of the call respect the results of projects SCORE and WBC-INCO.NET). Multilateral RTD projects are funded. The priorities are being set for each call (carried out on irregular basis). ICT has already been a priority also in the Pilot Joint Call (2007).

✓ European Territorial Cooperation Objective (INTERREG IV) : ****

Cross-border and inter-regional RTD cooperation in thematic areas of mutual interest is funded. SEE Programme is the best example to support regional cooperation. One of its priority axes also covers the field of innovation.

✓ NATO SPS : ***

This programme supports research activities in areas “defence against terrorism” and “Scientific Collaboration to Counter Other Threats to Security” – which includes the topic of Information Security. Furthermore Computer Networking Grants support a more generalized need in Partner Countries than is represented by the Key Priorities.

✓ Bilateral S&T agreements : ***

S&T agreements between countries focus on priority areas of both partners. In general, only mobility and exchange of research personnel is funded. Bilateral agreements are usually thematically open.

✓ National, unilateral S&T programmes: ***

The Norwegian, Swiss and German RTD programmes for WBC fund cooperation in certain RTD areas of mutual interest.

The German programme only funds preparatory actions (travel costs to meetings, conferences etc.) in areas of new technologies (correspondent to priorities of all WBC).

2.5 Measures against brain drain / brain waste

2.5.1 *Background*

Years of armed conflicts in former Yugoslavia, disrupted economies, difficult transition phases in all succession states and uncertain future prospects have all contributed to the massive brain drain and also brain waste of researchers, which hit all WBC to major or even fatal extent. Many researchers have left their countries to seek fortune in other professions (brain waste) or outside their mother countries (brain drain), leaving holes in their national RTD communities, which cannot be filled easily. Few of these (former) researchers intend to come back and links to the expatriate RTD community are weak with the result that neither knowledge backflow nor international contacts are strong enough. In WBC one the main problem is **lack of financial incentives** to remain in the countries or for ex-pat researchers to return to their home country. The specific field of ICT is no exception here.

In general, only strong intervention and effective measures can help to prevent further loss of human resources and capacities in WBC.

On the other hand, ICT can be used as a means to turn brain drain into brain gain, when scientific diaspora can be linked to activities in their home country, e.g. through social networking, joint proposals, etc.

2.5.2 *Country specification*

✓ Albania

Over the last ten years, Albania has lost almost 40% of scientific manpower, the biggest part of who are younger than 40 years. All Albanian research institutes, universities etc. are in a critical situation and in desperate need for an increase in academic staff. Albania has a good-

practice Brain Gain programme in cooperation with UNDP¹⁴. The Brain Gain support scheme is intended for individuals who have completed and earned their Masters and/or Ph.D.s with very good results and who have work experience abroad. This scheme aims at improving the teaching quality and raising university teaching standards at all levels and in scientific research as well.

✓ Bosnia and Herzegovina

The ICT research and system of higher education in BiH is suffering from brain drain due to post-war academic isolation, the lack of physical research infrastructure, the complicated political structure within the country and the poor economic situation.

Brain drain has predominantly occurred in the group of graduates and young scientists. The current situation shows an imbalance with a large number of (biologically) old researchers, hardly any middle-aged scientific staff and young researchers still leaving the country.

✓ Croatia

Throughout the 1990's, there was a notable decline in the scientific manpower, some left the country but more have changed professions. In Croatia, the Ministry is very active to address Diaspora (organisation of congresses, special calls for return grants, etc.)

✓ FYR of Macedonia

The country also registered a decline in scientific personnel during the 1990's with the situation nowadays being more constant.

✓ Montenegro

The numbers of scientific personnel remained quite constant after 1994, but the brain drain naturally also affects this small country, especially as in general the number of researchers is very low.

✓ Serbia

The Draft of the S&T Development Strategy tackles this issue, there are plans to set up measures to promoting science and research among young researchers and to introduce support measures for researchers to live and work in Serbia. Serbia's Ministry for Diaspora has launched a brain gain programme, and a focus of the EURAXESS node is on this target.

In Serbia, the numbers have been quite constant with regards to RTD staff employed in universities, research institutes and industry.

✓ Kosovo under UN Security Council Resolution 1244

A brain gain programme has been established which aims to involve Diaspora in the developing process, to decrease Brain Drain and encourage the return of the educated staff.

¹⁴ www.braingain.gov.al

2.5.3 *Correspondent funding programmes*

Brain drain and brain waste are problems, which cannot be solved directly by e.g. preventing people to seek for a better future. Besides favourable living conditions in stable political and economic circumstances, targeted investment into the national RTD system, in research infrastructure in order to offer adequate conditions for research activities, in promoting research careers, in supporting young researchers, in opening to international cooperation and researchers' mobility, in strengthening the RTD capacities of industry and SME etc. is of utmost importance to prevent brain drain, attract expatriate researchers to come back to their mother countries and to gradually build the human resources in WBC.

WUS Austria started a programme "Brain Gain Program plus" for SEE to address brain drain issue. Similar initiative has been undertaken by UNESCO in HP partnership, called "Piloting Solutions for Alleviating Brain Drain". However, brain drain is still one of the biggest problems in the country.

The available international RTD programmes for WBC do not cover directly the need for measures against brain drain and brain waste in WBC. As it is a multifactor problem, international and national efforts need to be gathered to tackle the bunch of issues.

✓ FP7 : Specific Programme PEOPLE : *****

The programme offers grants for scientists from associated countries to return to their home country and continue their research work there. The specific sub-headings of the People programme which are specifically relevant in this aspect are: 'Life-long training and career development' to support experienced researchers in complementing or acquiring new skills and competencies or in enhancing inter/multidisciplinarity and/or intersectoral mobility, in resuming a research career after a break and in (re)integrating into a longer term research position in Europe after a trans-national mobility experience; and 'International dimension' which includes incoming and outgoing fellowships for career development, to contribute to the life-long training and career development of EU-researchers, to attract research talent from outside Europe and to foster mutually beneficial research collaboration with research actors from outside Europe.

2.6 Support of mobility of WBC ICT researchers

2.6.1 *Background*

In this context, mobility is referred to as:

- Trans-national cooperation in projects (travel, meetings, etc.)
- Short- and long-term stays for experience exchange, working and training purposes at research institutions in EU and WBC
- Trans-sectoral mobility of staff between academia and industry

International experience, exchange of working methods and networking with colleagues from different countries is a crucial asset in today's research careers and for research institutions (international reputation, cooperation, knowledge gain etc.).

Also here, the mixture of post-war situation, loss of human capital in RTD, strict visa regulations, years of international isolation, disrupted RTD systems etc. has prevented mobility in both directions (incoming and outgoing) – naturally in all scientific fields including ICT. Further, the visa problem is still a big hurdle, long bureaucratic procedures and unsure positive replies still leave desperate and disillusioned researchers in WBC behind (although the situation recently improved considerably). Researchers and the RTD system as a whole in WBC are in strong need for mobility (in both directions: from and to WBC).

2.6.2 *Country specification*

Researchers' mobility is important to all countries in SEE. Visa facilitation and readmission agreements were signed between the EU and Albania, Bosnia and Herzegovina, FYR of Macedonia, Montenegro and Serbia. Until today, only in the case of Croatia visa is not required to enter the EU. Detailed roadmaps for each country were drawn up by the Commission in consultation with the Council which outline conditions for lifting the visa obligation and cover four sets of issues: document security, illegal migration, including readmission, public order and security, as well as external relations and fundamental rights. It is expected that mobility will be facilitated for researchers from the region, except for Kosovo/UN Resolution as the status question is still unresolved. The European Commission in July 2009 proposed to the Council of Ministers to lift the visa regime for citizens of Montenegro, Serbia and FYR Macedonia from 1 January 2010.

2.6.3 *Correspondent funding programmes*

All programmes, which cover travels to project meetings and other international cooperation activities, tackle this problem:

- ✓ FP7 Cooperation *
- ✓ FP7 Capacities * (Research potential, international cooperation)
- ✓ COST *****
- ✓ Bilateral S&T agreements *****
- ✓ EIB Innovation 2010 *

- ✓ UNESCO *
- ✓ National, unilateral S&T programmes **
- ✓ National, unilateral Innovation/Business programmes **, etc.

Following programmes cover short- and long term research stays in EU RTD institutions:

- ✓ FP7 People *** (International incoming fellowships, international outgoing fellowships, industry/academia partnerships)
- ✓ COST **
- ✓ JRC *
- ✓ SEE-ERA.NET PLUS **
- ✓ NATO SPS *
- ✓ TEMPUS *
- ✓ Life Long Learning *, etc.

2.7 Support of transformation of universities from teaching to research institutions

2.7.1 Background

In many cases, universities in WBC are teaching institutions with only a low level of RTD activities, resulting in questionable quality of university diploma, minor international competitiveness of graduates and low attractiveness of research career in general. ICT research is represented as a rather important research field, but this problem has to be seen in a wider context, since it is the result of other developments and factors like e.g. devastation of RTD infrastructure, international isolation, low level of public funding, gap to international developments (Bologna process), traditional role of universities etc.

WBCs are faced with the requirements set by the Bologna process and in order to accomplish these objectives, universities in WBC undergo a transition process. Here, the renewal of university curricula and the adoption of international standards is a core objective.

2.7.2 Country specification

The more a country has to struggle with the effects of the factors mentioned above, the more the problem of universities is eminent – as they are mainly teaching facilities.

The report by Mantl, W., Marko, J., Kopetz, H.: Institutions of Research and Tertiary Education in Central and South East Europe - Developments, Structures and Perspectives of these Institutions for their Integration into the European Higher Education and Research Area (available from <http://www.wbc-inco.net/object/document/40834.html>) describes several aspects of this need and discusses the following specifics:

- ✓ Albania

There is no institutional division of teaching and research. The legal framework provides for inter-university centres to promote international and interdisciplinary research.

✓ Bosnia and Herzegovina

Research activities are carried out basically only by universities, but most of the focus is on teaching. There is no institutional division between research and teaching. Both areas are covered by universities. Both entity governments also finance research of the two Academies of Sciences and Arts.

✓ Croatia

There is still a strong: division between universities mainly doing teaching and the Academy of Sciences and non-university public institutes doing research.

✓ FYR of Macedonia

There is no institutional division of teaching and research as universities have their own research institutes. No research activities are undertaken at Tetovo state university and Stip. In addition, the Academy of Sciences runs five research institutes

✓ Montenegro

There is no strong institutional division between teaching and research by the university and Academy of Sciences.

✓ Serbia

Universities in Serbia perform mostly teaching, but at the same time research centres within universities and faculties are the most developed part of research community. Beside mentioned there are several publicly funded research institutes.

The Ministry of Education is in charge for education, for science the Ministry of Science and Technological Development (MSTD) and until very recently there has not been any close cooperation – but currently cooperation is starting in order to conduct the reform of higher education, especially PhD studies in order to support further development of science and research in Serbia. One of IPA funded project is focused on the issue of reform of the higher education system in Serbia, and MSTD is partner in this project. Also, the Draft of the Strategy is setting up some measures to cover this issue and to improve the current situation.

✓ Kosovo under UN Security Council Resolution 1244

There are almost no research infrastructure and capacities, either at the University or the Academy of Sciences. An IT University is yet to be established.

2.7.3 *Correspondent funding programmes*

This need requires support from different angles, since various factors account to this demand like e.g. investment in RTD infrastructure, updating of university curricula, training of university staff, international cooperation etc. In detail, following programmes support the modernization of curricula and universities:

✓ TEMPUS : ****

The programme aims at improving university curricula, university management and higher education modernization.

✓ Life Long Learning :****

The programme supports the adoption of Bologna objectives in higher education systems. Also, policy cooperation for know-how transfer in accreditation services is a focus. The update of higher education management is a core objective.

✓ UNESCO :****

The UNESCO supports measures to implement the Bologna objectives in higher education systems of WBCs.

✓ World Bank :**

In its strategy for S&T support in SEE, the World Bank also focuses on improving the quality and relevance of tertiary education (university graduation and research degrees).

2.8 Specific support to basic research

2.8.1 Background

Basic research had a long-standing tradition in former Yugoslavia (1918 – 1991). Universities were founded already in the 19th century. State support guaranteed appropriate investment in research leading to a strong basic research system and prominent industrial research.

Despite the heritage of relatively high-quality research institutions in the successor states of Former Yugoslavia the shrinking of national RTD systems in the WBC and thus of basic research remains a major obstacle. As WBCs need to strengthen their economies and boost social welfare, applied research is prioritized in the policy orientation of WBC. Especially in the field of ICT research, the sector of applied research is more in the focus. Although basic research should not be neglected.

2.8.2 Country specification

✓ Albania

Key issues for Albania for priority setting in research are economic importance, strategic importance, research & technological opportunities, and application capacity. Following this, national policies have prioritized applied research. Nevertheless, support to basic research remained important.

✓ Bosnia and Herzegovina

The specific situation of the Bosnia and Herzegovina RTD system, being highly fragmented and decentralized on cantonal and entity level and lacking of a coherent RTD policy and investment on the state level, makes support for basic research still important. In the light of these problems, Bosnia and Herzegovina needs to focus its efforts and establish institutes for fundamental and applied research in areas of particular interest. Also, basic research needs to be developed as a ground for training and future technological development.

✓ Croatia

A well developed university system and high-level public research institutes (e.g. Ruder Bošković Institute) account to the good situation of basic research in the country.

✓ FYR of Macedonia

Governmental initiatives have started to support basic research through encouraging and financing national R&D projects. Still, this support needs to be strengthened, as it is vital for the development of the country.

✓ Montenegro

The need for support of basic research is profound, governmental initiatives have started their support in specific scientific areas.

✓ Serbia

The challenge for Serbia lies in strengthening the connection between the well-developed basic research system and applied research initiatives, technology transfer systems etc.

Governmental programmes focus on support of specific thematic scientific areas. According to the Law on Science and Research, ICT is one of 14 thematic areas, but the programme is not adopted yet. Recently the Ministry of Science prepared draft version of the Scientific and Technological Development Strategy which will clarify the levels of basic and applied research.

✓ Kosovo under UN Security Council Resolution 1244

Specific research funding programmes are to be established only in 2010, ICT is expected to be among the priorities, in the basic as well as the applied field.

2.8.3 Correspondent funding programmes✓ FP7: Specific Programme: Cooperation : **

The Cooperation programme is funding transdisciplinary research in specific research areas (which follow a policy objective but usually include also some basic research).

✓ FP7: Specific Programme: Ideas : *****

Pioneer, basic research is funded with the possibility of WBC researchers to get involved into research teams. Still, the areas of research are completely open, scientific excellence is the sole criteria, which needs to necessarily meet the priority objectives of Western Balkan Countries.

✓ FP7: Specific Programme: People : ***

The People programme supports excellent researchers in their mobility and capacity building in a thematically open way. Therefore basic ICT research may be carried out e.g. by incoming Marie Curie research fellows.

✓ COST : ****

This programme supports the creation of international networking projects in different basic research areas. Still, it is limited to fund only meetings and coordination activities (workshops, conferences etc.) within the project, whereas RTD activities need to be financed by different means other than COST.

✓ SEE-ERA.NET PLUS Joint Call : ***

In certain thematic areas specifically important to WBC RTD (including the field of ICT in the call open in 2009/10), multilateral projects in basic research are funded.

✓ Territorial Cooperation : ***

Cross-border and inter-regional RTD cooperation in thematic areas of mutual interest is funded in the different strands.

✓ NATO SPS : *****

Multi-annual, basic research projects in areas defined by partner countries (which include ICT) receive funding.

✓ National, unilateral S&T programmes : **

The programme funded by the Norwegian Research Council supports basic RTD collaboration between Norwegian and WBC research institutions.

2.9 Specific support to applied research

2.9.1 *Background*

Applied research aims to develop new technologies, new development, production of high-end goods etc. It is an integral part of the innovation system and contributes to economic growth. It combines scientific, entrepreneurial and engineering knowledge. Unfortunately, in WBC the investment from the business sector into RTD remains very low: BERD figures (business expenditure in R&D as a share of GDP) lags considerably behind the EU Member States. The innovation spirit has not yet taken hold of entrepreneurs in the WBC and the main characteristic of the business sector in many WBC remains service oriented and not knowledge and innovation intense. National initiatives to boost BERD are also missing. A problem in the Western Balkans is also that the government supports only those organisations that are officially recognized as research organisations. Nevertheless, there are few research groups and companies which are very successful in the field of applied research.

2.9.2 *Country specification*

✓ Albania

National policies have prioritized ICT as one of the priority scientific areas. As mentioned above, the need to focus on applied research is reflected in the countries strategy, but business sector R&D in this field is hardly carried out in Albania.

✓ Bosnia and Herzegovina

The need for a general increase of level expertise such as ICT is essential for the economic growth of the country. There are few quite strong companies, specialized in certain fields of ICT, for example, bank transactions, e-Learning or information systems for health sector. However, they function mainly in business environment and are barely included in research communities, i.e. these companies do not cooperate with universities, do not participate in

research policies development, and are not involved in relevant EU programmes. It is necessary to raise their awareness towards participation in internationally funded research programmes.

✓ Croatia

National policies need to combine public science with production and entrepreneurship.

✓ FYR of Macedonia

Specialisation in ICT production technologies is essential for the country and requires further support in applied research in the area.

✓ Montenegro

The need for support of applied research is profound. Governmental initiatives have started their support in specific scientific areas.

✓ Serbia

Various governmental programmes support commercialisation of research results, applied research projects, technology and innovation initiatives, etc.

✓ Kosovo under UN Security Council Resolution 1244

There is currently no specific support programme for applied research.

2.9.3 Correspondent funding programmes

✓ FP7: Specific Programme: Cooperation : **

The Cooperation programme is funding transdisciplinary research in specific research areas (which follow a policy objective but usually include also applied research).

✓ CIP : ****

Applied, market oriented RTD projects in ICT are funded. The specific programme is also open for WBC.

✓ EUREKA : ****

The programme offers the international platform and contacts for conducting RTD projects in innovation with market-orientation. National funds are necessary to fund the activities.

✓ EUROSTARS : ***

The programme offers innovative projects with SME participation. National funds are necessary to support the RTD activities.

✓ Territorial cooperation : **

Besides other objectives, the programme supports cross-border and inter-regional cooperation in technological development and entrepreneurship.

✓ National unilateral innovation/business programmes (i.e. COIN) : *****

Innovation projects with focus on SME involvement between Austrian companies and intermediaries and such from Eastern and South Eastern Europe are supported.

2.10 Strengthen connection between basic and applied research

2.10.1 *Background*

The innovation capacity of countries' S&T system depends to a great extent on the successful link between basic and applied research, thus in the potential of basic research to create results and new findings and in the ability of the innovation system to take up these new developments and commercialize them appropriately.

The success of this model relies on strong components as well as strong interconnection.

For WBC, the need to realize the necessity of interconnection and in a further step to strengthen this link is crucially important. It goes hand in hand with the strengthening of both components, and as described already with the further needs to define and channel resources to S&T priorities, to upgrade technological capabilities of industry and SMEs as well as to introduce functioning technology transfer systems.

2.10.2 *Country specification*

The S&T systems of all WBC reflect the need to strengthen the connection between basic and applied research, but to various extent with Croatia's RTD and innovation system being more advanced in responding to the need than other WBC.

2.10.3 *Correspondent funding programmes*

Programmes supporting either basic or applied research can have obvious spill-over effects to strengthen also the connection between the components. Besides, this need also requires strong intervention through national strategies.

✓ FP7: Specific Programme: Cooperation : ****

FP7 Cooperation in ICT supports interdisciplinary and transdisciplinary cooperation as well as the integration of both SMEs as well as universities and research institutions in consortia, in particular in small or medium-scale focused research projects aiming at developing new knowledge, new technology, products, demonstration activities or common resources for research. Also Networks of Excellence usually combine business and research actors.

✓ FP7: Specific Programme: People – IAPP : ****

FP7 PEOPLE IAPP (Industry Academia Partnership Pathway) seeks to open and foster dynamic pathways between public research organisations and private commercial enterprises, in particular SMEs, including traditional manufacturing industries, based on longer term cooperation programmes with a high potential for increasing knowledge-sharing and mutual understanding of the different cultural settings and skill requirements of both the industrial and academic sectors.

Support is provided for the creation, development, reinforcement and execution of strategic partnerships in the form of a longer-term cooperation programme between the participants, aimed at knowledge sharing and inter-sector mobility, based on targeted human resources

interaction. Such strategic research partnership projects can be coordinated by either an industrial or an academic participant.

✓ National unilateral innovation/business programmes (i.e. COIN) : *****

Consortia usually include intermediaries and companies linking research results to industry. The project partners usually come from universities as well as from the business sector (preferably from SMEs). Networking and innovation projects with focus on SME involvement are fostered.

2.11 Enhancement of RTD capacities of industry and SMEs

2.11.1 *Background*

In many SEE countries, the level of innovative capacity of the business sector is rather low. Large public enterprises are shut down and SMEs' capacity for innovation, RTD output and commercialization of science is very limited. The reasons are manifold, general economic weakness; insufficient public spending for the innovation system, lack of appropriate state initiatives (tax incentives, technology parks etc.) remain the major problems.

In addition, governments in SEE still lack awareness of the importance of innovation for increased economic competitiveness and growth. Technology transfer systems have only recently been implemented in some WBC. ICT can be seen on the forefront of any development. Recently established nodes of the Enterprise Europe Network will provide strong support to tackle this problem.

In general, technological capacity of the business sector is not the top priority in most of the national RTD plans of WBC and conditions for private investment in RTD remain poor.

2.11.2 *Country specification*

✓ Albania

Industry and SMEs are still far from active R&D ICT activities in Albania. The country need a national strategy to improve the innovation capacity of industry and SME.

✓ Bosnia and Herzegovina

Most of the country's large companies with respectable RTD innovation capacity have not been reconstructed yet due to lack of national and foreign investment. Also, SMEs' RTD output remains very low contributing to the weak technological performance of the country. Donor supported technology transfer centres have started in several universities.

✓ Croatia

The HITRA programme¹⁵ is the first innovation policy programme aimed at fostering the commercialization of science and at improving the overall innovation performance of the country. Still, stronger political awareness of the key role of innovation and commercialization of science for a knowledge based economy is important.

✓ FYR of Macedonia

Some technology parks exist in the country and some donor supported technology initiatives have been started.

✓ Montenegro

Innovation and technology transfer initiatives are underdeveloped, systematic strategies and investment is needed.

✓ Serbia

National programmes try to tackle the issue of low innovation capacity of the business sector by various initiatives focused on innovative SMEs, the development of S&T parks and the interconnection and interaction of the various components of the RTD system (knowledge generation – application – entrepreneurship).

✓ Kosovo under UN Security Council Resolution 1244

Technology transfer and innovation capacity of the business sector have not been prioritised in policy strategies.

2.11.3 Correspondent funding programmes

✓ FP7: Specific Programme: Cooperation : **

In the Cooperation Programme, SMEs are actively encouraged to participate in the research projects (which is also valid for the Ideas programme where they compete based on excellence).

✓ FP7: Specific Programme: People - IAPP : **

The already mentioned Industry Academia Partnerships and Pathways funding line supports the researcher careers which involve both the private sector and academia, increased participation of SMEs is encouraged.

✓ FP7: Specific Programme: Capacities – Research for the benefit of SMEs : ****

The sub programme for SMEs aims to strengthen innovative capacities of SMEs and their contribution to the development of new technology-based products and markets.

¹⁵ HITRA - Croatian Innovative Technological Development Programme This programme encourages integration of public scientific research domain on the one hand and business on the other, in order to promote knowledge-based economy.

<http://www.carnet.hr/referalni/obrazovni/en/ppod/HITRA>

✓ CIP : *****

Support for RTD Innovation and market application is the main objectives of the CIP programme. Special attention is dedicated to the involvement of SMEs, which are encouraged to improve their innovative capacities through low-risk access to financial resources.

The programme is not fully open to WBC, accession may be difficult and participation low due to the low number and low level of RTD capacity of SMEs in WBC.

✓ EUREKA : *****

EUREKA is a platform for market-oriented research, with strong involvement of SMEs.

As funding comes from national sources, participation of eligible WBC remains unstable and insecure.

✓ Eurostars ****

The programme offers innovative projects with SME participation. National funds are necessary to support RTD activities.

✓ EIB Innovation 2010 : **

SMEs receive support through senior and/or structured loans for RTD activities and patent development. In general, the programme covers various objectives and needs.

✓ European Territorial Cooperation Objective (INTERREG IV) : **

The programme targets technology development and support for enterprises, but to very limited extent.

✓ National unilateral innovation/business programmes (i.e. COIN) : *****

Networking and innovation projects are supported, with special focus to cooperation between "clustered systems".

2.12 Implementation of EU standards and harmonisation

2.12.1 *Background*

The integration into the European Union is the long-term goal of all SEE countries. The level of integration varies from country to country. Still, the road to the EU requires a step-by-step implementation of EU standards and adoption of the *acquis communautaire* in all fields, so as in RTD (chapter 25) and Information Society and Media (chapter 10). Thus, it is of utmost importance for all WBC to adapt their national systems to EU rules, working methods and policies.

2.12.2 *Country specification*

The EU has different tools (like JRC, IPA, etc.) to assist countries in their association and integration process. The level of integration/status of accession to EU defines which programmes are applied to the countries:

Candidate Countries (Croatia, FYR of Macedonia)

The countries benefit from all five components of the IPA programme. Both are signatories of the Stabilisation and Association Agreement (SAA) pre-requisite for the status of a candidate country.

Potential Candidate Countries

Albania, Bosnia and Herzegovina, Montenegro, Serbia and Kosovo/UN Resolution are eligible for two components of the IPA programme. All WB countries (Albania, Montenegro, Serbia, Bosnia and Herzegovina) signed SAA agreements. Montenegro already applied for candidacy status

2.12.3 Correspondent funding programmes

All EU programmes foster adaptation to EU standards (e.g. FP7, TEMPUS, Life Long Learning Programme, etc.) and working methods. The more WBCs are integrated and the more WBC researchers participate in international actions, the more common is the adaptation to and implementation of EU standards (e.g. in project management, evaluation procedures etc.) in WBCs. Also the Joint Research Centres (JRC) of the European Commission play a specific role in the adaptation of EU standards, they run also an enlargement activity.

✓ IPA : ****

The Instrument for Pre-Accession specifically assists in adapting to the *acquis communautaire*.

2.13 Support of research career development

2.13.1 Background

Massive brain drain, low level of public financing, low international visibility and integration, low income of researchers, inappropriate state of RTD infrastructure, difficult international mobility, etc. the list of reasons, why a research career in SEE does not seem appealing is long and reflects the major problems researchers and especially young scientists have to face when following a research career in all fields. Young researchers lack sufficient opportunities for training and mobility, talented people need an attractive RTD environment in order to have the possibility to develop a flexible and performance related career. The situation in the field of ICT might be better than in many other scientific areas but alongside with a diminishing appreciation of the research profession and the general low awareness of S&T as a motor for economy, many SEE countries face the problem of a lack of human resources to fill the void and respond to demands for a competitive research system.

RTD systems in WBC lack of following components important for an attractive research career and more young researchers:

- Projects for training of junior researchers and new employment mechanisms

- Initiatives for re-training of people with interrupted research-careers to encourage them to follow up and learn new techniques
- Cooperation between higher education sector and business sector as to ensure employment possibilities after studies
- Trainings to increase international cooperation and mobility

2.13.2 *Country specification*

All WBCs are affected by the decreasing number of researchers and young people who opt for the career of a researcher. National programmes specifically for the promotion of young researchers hardly exist.

2.13.3 *Correspondent funding programmes*

All programmes, which improve the RTD situation in WBCs in general can have long-term positive effects and can result in increased numbers of researchers in WBCs.

✓ FP7: People: *****

Special initiatives for early stage researchers (max. 4 years of research experience after graduation) in international training networks are offered. Also, career development of researchers is a major objective of the programme.

✓ FP7: Ideas: ****

In the European Research Council (ERC) grants, young researchers have the possibility to set up their own research team. Young researchers can also become par of research teams if they are engaged at a participating university or research organisation.

2.14 Support to institution building

2.14.1 *Background*

The RTD systems of the WBCs need to undergo a process of institutional transformation and restructuring in order to be able to respond to national demands and international RTD developments. The main problems are:

- Low level of awareness on S&T as the motor for economic growth in the society
- Fragmented national strategies for RTD lacking long term perspectives
- Lack of coherent strategies to foster involvement of the business sector in RTD
- Inadequate evaluation systems to measure S&T policies, programmes and institutions in WBC
- Lack of regular/appropriate statistical measures of scientific and technological output

Western Balkan countries have now started designing an integrated research policy, in line with the EU action regarding the European Research Area and in parallel with association with FP7. This includes stimulating investment in research, by both the public and private sectors, making the scientific careers of more attractive and ensuring that there are enough scientists to contribute to the knowledge-based society. Research policy measures are part of the EU acquis.

A positive development can be seen also in the active presence of National Contact Points (NCPs) for various EU programmes (FP7, JRC, TEMPUS, etc.) in the countries. Such a system is of crucial importance for the integration into various EU programmes and success of WBC researchers in these programmes.

2.14.2 *Country specification*

✓ Albania

The country faces all problems, which have been mentioned above to serious extent. The specific lack of data and statistics on S&T, lack of human resources and funds to improve this situation are just now being tackled. There is the General Directory of Patents and Marks in Albania under the Ministry of Economy, Trade and Energy, which registers patents and marks in Albania. Currently new agencies are planned to be developed. Based on the recently presented STI Strategy of Albania, the Albanian Research Funding Agency has been established.

✓ Bosnia and Herzegovina

The fragmented state-structure makes it very difficult to create coherent national RTD strategies and evaluation systems. Statistical data on S&T is still hard (impossible) to obtain as in BiH the state does not collect data on S&T. The Ministry of Civil Affairs is fully aware of the problem and asked help through the European Commission's technical assistance in order to set up a practice in the line with the sources of Eurostat. The Institute for Intellectual Property of Bosnia and Herzegovina was established under the Law Establishing the Institute

for Intellectual Property of Bosnia and Herzegovina (BiH Gazette volume 43/04). The Institute has been operating as an independent, state, administrative organization since January 1, 2009. A public debate on the Draft Strategy on Science Development in BiH and the Action Plan has been opened in July 2009 and the Framework Law on Scientific and Research Operations has been adopted.

✓ Croatia

Surveys and statistics indicating R&D expenditure, innovation, patents, human resources in R&D, Information Technology in Croatia are available. Croatia also actively participates in ERAWATCH, Trendchart and other European projects for evaluation and benchmarking of RTD policy. Problems are still the lack of trained statisticians and the administrative capacities in the statistics field.

✓ FYR of Macedonia

Although coping with the problems described above, progress has been made as the country has improved its national evaluation system through new regulations, making the evaluation procedure more open and scientifically objective. Basic S&T statistics on R&D and innovation are prepared, surveys carried out. However, some updates in the surveys are needed and the scope should be enlarged.

✓ Montenegro

Limited R&D indicators are available. However, the process of S&T statistical reform has started, where MONSTAT (national statistical office) and Ministry of Education and Science have formed a joint group that will actively work on these matters. So far, several activities have been undertaken (TAIEX expert mission, WBC-INCO.NET workshop and expert mission), and, in line with the devised plan of activities, it is expected that in 2011 the first survey using the recognized RTD indicators will be available.

✓ Serbia

The country faces the problems mentioned above as well, although the legal framework is available and a national strategy is just being developed. However, also the S&T statistical system should be further improved to be compatible with international standards.

✓ Kosovo under UN Security Council Resolution 1244

The unresolved status question and newly set-up institutional system make this a major problem in Kosovo/UN Resolution.

2.14.3 Correspondent funding programmes

✓ FP7: Specific Programme: Capacities/International Cooperation : *****

The actions foreseen under the INCO programme are mainly targeted towards policy makers in WBC to support the integration of national RTD systems into ERA, which also includes the need for adaptation of institutions and institution building (e.g.: establishing NCP systems in WBC). Actions are implemented in SEE-ERA.NET, SEE-ERA.NET PLUS and WBC-INCO.NET projects.

✓ IPA : ***

Although Institution Building is one of the five components of IPA applicable to all WBC, RTD is not addressed. Only in the Multi-Beneficiary Programme, institution-building measures (mapping of RTD facilities, integration into ERA) are mentioned. Currently discussions about the development of a Regional R&D Strategy to be supported through IPA are under way. However, most of the beneficiary countries have managed to use IPA funds for FP7 annual participation fees.

✓ European Territorial Cooperation Objective (INTERREG IV) : ****

The programme supports the exchange of experiences; good practices also cooperation initiatives in technology development. Activities like inter-regional mapping of excellence, synchronization of evaluation procedures etc. can also form part of these projects.

✓ TEMPUS IV: **

The programme supports the development of administrative and institutional structures of universities through training of staff. In the new phase of the programme, also support to research connected activities is planned.

3 INTERNATIONAL FUNDING PROGRAMMES IN ICT FOR WBC

The programmes hereinafter introduced summarize several international offers, under which funding is available for the RTD activities of the WBCs. Some programmes are more or less specifically designed for the WBCs (IPA, bilateral S&T agreements, national/unilateral RTD programmes, development programmes) whereas in others the WBCs can additionally participate and/or have Member State status (FP7, COST, EUREKA, TEMPUS, etc.).

As the programmes are all international, cooperation on this level is enhanced and helps the WBCs to step out of their isolation and grow into the European and worldwide RTD family.

3.1 7th European Framework Programme for RTD – FP7

3.1.1 Introduction

The Seventh Framework Programme for research and technological development (FP7) is the European Union's chief instrument for funding research.

FP7 is divided into four main programmes with different major objectives (which are being discussed in the following chapters individually):

- a) Cooperation – to fund collaborative research projects;
- b) Ideas – to fund frontier research;
- c) People – to support human potential, particularly mobility of researchers;
- d) Capacities – to support building research capacity at EU level and in regions.

In addition to these four core programmes FP7 will finance the non-nuclear activities of the **Joint Research Centre (JRC)**, whose priorities will lie in those areas of strategic importance to the Union and where its input provides high added value. The JRC will strengthen its position in the European Research Area by facilitating access to its facilities by European and non-European researchers. Actions by Euratom in the fields of research into fusion energy and nuclear fission and radiation protection will also be supported.

3.1.2 Duration

2007-2013

3.1.3 Objectives

The Framework Programme is the major EU programme to support research. Different specific programmes (SP) have different objectives (see introduction), an ICT component in FP7 is included more or less explicitly in all sub-programmes.

3.1.4 Eligibility of WBCs

All WBCs except Kosovo under UN Security Council Resolution 1244 are associated to FP7. This means that all legal entities established in these **Associated Countries** are eligible for funding on the same footing as legal entities from the Member States.

See ftp://ftp.cordis.europa.eu/pub/fp7/docs/third_country_agreements_en.pdf

3.1.5 Conditions for funding

Conditions for funding depend on different specific programmes (Cooperation, Capacities, People, Ideas) and different types of projects (Integrated Projects, Networks of Excellence, Marie Curie Fellowships, etc.). Different conditions for funding apply also for different activities (e.g. management, demonstration, research, etc.) and for different participants (SMEs, Civil Society Organisations, individual researchers, etc.). More information is available in the following chapters.

3.1.6 Fields/Areas of funding

Areas of funding depend on the specific programme (SP). The SP Cooperation and SP Capacities are defined top-down by the European Commission and topics are presented in specific yearly work programmes. In SP Cooperation, a specific sub-programme is focused on ICT research. In the SP Capacities, several programmes (especially Infrastructures) are relevant. The SP People is thematically open and supports career development, the SP Ideas is supporting excellent research in any thematic field. Further information is provided in the following chapters.

3.1.7 Budget

In the Commission's amended proposals for FP7, it was proposed that the maximum overall amount for Community financial participation in the EC Seventh Framework Programme should be euro 50 521 million for the period 2007 - 2013. For nuclear research and training activities carried out under the Euratom treaty euro 2751 million are foreseen for 2007-2011.

3.1.8 More information

Website of the Seventh Research Framework Programme:

http://cordis.europa.eu/fp7/home_en.html

DG Research:

<http://ec.europa.eu/research/index.cfm>

Summary of legislation on FP7:

http://europa.eu/legislation_summaries/research_innovation/general_framework/index_en.htm

3.1.9 Corresponding to the following needs

Corresponding needs are specified for the specific programmes (Cooperation, Capacities, People, Ideas) in the following chapters.

3.2 FP7 Specific Programme: Cooperation (subprogramme to 3.1)

3.2.1 Introduction

Support will be given to the whole range of research activities carried out in trans-national cooperation, from collaborative projects and networks to the coordination of national research programmes. International cooperation between the EU and third countries is an integral part of this action. Implementation will be carried out with collaborative research (constituting the bulk and the core of EU research funding,) Joint Technology Initiatives and Technology Platforms. Furthermore, coordination of non-Community research programmes is targeted (creation of ERA-NET scheme).

3.2.2 Duration

2007-2013

3.2.3 Objectives

This programme forms the core of FP7. It aims to stimulate transnational cooperation across the EU and beyond and to improve links between industry and research within a transnational framework. It is intended to address European social, economic, environmental and industrial challenges.

3.2.4 Eligibility of WBC

As mentioned above, Albania, Bosnia and Herzegovina Croatia, FYR of Macedonia, Montenegro, Serbia are associated to the Framework Programme and participate on same grounds as EU Member States.

3.2.5 Conditions for funding

There are different types of projects supported in the field of ICT:

Collaborative projects (CP): Support to research projects carried out by consortia with participants from different countries, aiming at developing new knowledge, new technology, products, demonstration activities or common resources for research. The size, scope and internal organisation of projects can vary from field to field and from topic to topic.

Projects can range from small or medium-scale focused research actions to large-scale integrating projects for achieving a defined objective. Projects may also be targeted to special groups such as SMEs.

Their content will consist of either of the following two, or a combination of the two:

- a) a research and technological development project designed to generate new knowledge which would improve European competitiveness and/or address major societal needs
- b) a demonstration project designed to prove the viability of new technologies offering potential economic advantage but which cannot be commercialised directly (e.g. testing of product-like prototypes)
- c) project management activities.
- d) Such type of projects could also include innovation-related activities, in particular with respect to the management of the knowledge produced and the protection of intellectual property.

Networks of Excellence (NoE): The Networks of Excellence are intended to gather top research institutes to collaborate in one virtual centre of excellence. The network must have a joint program of activity which will facilitate the integration of the institutes. The NoE must also carry out actions supporting integration and dissemination of expertise.

The measures that support integration refer to close virtual and physical collaboration, personnel exchange and the development or use of common resources. The dissemination of expertise can consist of the training of researchers from outside the group and dissemination of information on achievements.

Coordination and support actions (CSA): Support to activities aimed at coordinating or supporting research activities and policies (networking, exchanges, trans-national access to research infrastructures, studies, conferences, etc).

3.2.6 Fields/Areas of funding

The following key themes (including a specific sub programme for ICT) are funded:

- Health – euro 6.1 bn;
- Food, Agriculture and Fisheries, and Biotechnology - 1.935 euro bn;
- **Information and Communication Technologies - euro 9.05 bn;**
- Nano-sciences, Nano-technologies, Materials and New Production Technologies - euro 3.475 bn;
- Energy - euro 2.35 bn;
- Environment (including Climate Change) – euro 1.89 bn;
- Transport (including Aeronautics) – euro 4.16 bn;
- Socio-economic Sciences and Humanities – euro 623 m;
- Space – euro 1.43 bn;
- Security – euro 1.4 bn;

Overall budget: euro 32.413 bn

3.2.7 Budget

euro 9.05 bn (see above)

3.2.8 More information

Cooperation Programme on CORDIS:

http://cordis.europa.eu/fp7/cooperation/home_en.html

3.2.9 Corresponding to following needs:

- ✓ Upgrade of information and e-infrastructure and internet connections **
- ✓ Enhancement of regional RTD cooperation **
- ✓ Identification and concentration on priority research areas ***
- ✓ Support of mobility of WBC ICT Researchers *
- ✓ Specific support to basic research **
- ✓ Specific support to applied research**
- ✓ Strengthen connection between basic and applied research ****
- ✓ Enhancement of RTD capacities of industry and SMEs **

3.3 FP7 Specific Programme: Ideas (subprogramme to 3.1)**3.3.1 Introduction**

The Ideas programme is implemented by the European Research Council (ERC), which consists of the Scientific Council (SC) and a Dedicated Implementation Structure (DIS). The SC sets the research topics for the work programme; it operates independently and consists of a group of high-level researchers.

3.3.2 Duration

2007-2013

3.3.3 Objectives

The SP Ideas is set to foster high-level frontier research by supporting research teams of highest excellence conducting research with the potential to scientific breakthroughs and to opening new dimensions in science.

3.3.4 Eligibility of WBC

The ERC actions are open to researchers of any nationality who intend to establish and conduct their research activity in any Member State or Associated Country.

The Principal Investigator may be of any age or nationality. The host organisation may be any University and research organisation situated in an EU Member State or an Associated Country.

3.3.5 *Conditions for funding*

The ERC provides two types of grant schemes to support the best researchers in Europe in carrying out pioneering frontier research projects. These grant schemes are operating on a “bottom-up” basis without predetermined topics or thematic priorities and encourage risk-taking as well as interdisciplinarity.

ERC Starting Independent Researcher Grant (ERC Starting Grant) aims to support up-and-coming research leaders who are about to establish or consolidate a research team and to start conducting independent research in Europe. **ERC Advanced Investigator Grant (ERC Advanced Grant)**

ERC Advanced Grant funding scheme complements the ERC Starting Grant funding scheme by targeting researchers who have already established themselves as independent research leaders in their own right. ERC Advanced Grants allow exceptional established research leaders in any field to pursue frontier research of their choice.

3.3.6 *Fields/Areas of funding*

In principal no thematic restrictions exist, so any ICT related topic is eligible for funding (in 2008 focus was on physical sciences and engineering, life sciences, social sciences and humanities and interdisciplinary research).

3.3.7 *Budget*

The Ideas programme has a budget of 7.510 million euro

3.3.8 *More information*

European Research Council

<http://erc.europa.eu/index.cfm>

Ideas Programme on CORDIS

http://cordis.europa.eu/fp7/ideas/home_en.html

3.3.9 *Corresponding to following needs*

- ✓ Identification and concentration on priority research areas ***
- ✓ Specific support to basic research *****
- ✓ Support of research career development *****

3.4 FP7 Specific Programme: People (subprogramme to 3.1)

3.4.1 Introduction

In recognition of the key need for high quality researchers in stimulating innovation, this programme focuses on strengthening the human potential in research and technology in Europe. Its main aim is to improve the career prospects of researchers in the EU and to attract the best researchers from around the world.

Built on the experiences of the Marie Curie actions under previous Framework Programmes, it is implemented through a coherent set of actions, particularly taking into account the European added value in terms of their structuring effect on the European Research Area. These actions address researchers at all stages of their careers, in the public and private sectors, from initial research training, specifically intended for researchers at the early stages of their career, to life-long learning and career development, as well as for knowledge transfer between sectors and with the rest of the world.

3.4.2 Duration

2007 - 2013

3.4.3 Objectives

'Strengthening, quantitatively and qualitatively, the human potential in research and technology in Europe, by stimulating people to enter into the profession of researcher, encouraging European researchers to stay in Europe, and attracting to Europe researchers from the entire world, making Europe more attractive to the best researchers. These actions address researchers at all stages of their careers, in the public and private sectors, from initial research training, specifically intended for young people, to life long learning and career development. Efforts will also be made to increase participation by women researchers, by encouraging equal opportunities in all 'Marie Curie Actions', by designing the actions to ensure that researchers can achieve an appropriate work/life balance and by facilitating resuming a research career after a break.

3.4.4 Eligibility of WBC

As mentioned above, Albania, Bosnia and Herzegovina Croatia, FYR of Macedonia, Montenegro, Serbia are associated to the Framework Programme and participate on same grounds as EU Member States. Therefore, the countries of the Western Balkans are not regarded as “outside” of the EU, so researcher mobility can be regarded as “inner European”, outgoing or incoming.

3.4.5 Conditions for funding

The 'People' Specific Programme will be implemented through actions under five headings:

- 'Initial training of researchers to improve mostly young researchers' career perspectives in both public and private sectors, by broadening their scientific and generic skills, including those related to technology transfer and entrepreneurship.
- 'Life-long training and career development' to support experienced researchers in complementing or acquiring new skills and competencies or in enhancing inter/multidisciplinarity and/or intersectoral mobility, in resuming a research career after a break and in (re)integrating into a longer term research position in Europe after a trans-national mobility experience.
- 'Industry-academia pathways and partnerships' to stimulate intersectoral mobility and increase knowledge sharing through joint research partnerships in longer term co-operation programmes between organisations from academia and industry, in particular SMEs and including traditional manufacturing industries.
- 'International dimension', to contribute to the life-long training and career development of EU-researchers, to attract research talent from outside Europe and to foster mutually beneficial research collaboration with research actors from outside Europe.
- 'Specific actions' to support removing obstacles to mobility and enhancing the career

3.4.6 Fields / Areas of funding

In principle no thematic restrictions exist (bottom-up approach).

The Marie Curie actions are open to all domains of research and technological development addressed under the EC Treaty and research fields are chosen freely by the applicants in a 'bottom-up' manner.

3.4.7 Budget

The People Specific Programme has an overall budget of over euro 4.7 billion over the seven years of FP7.

3.4.8 More information

SP People on CORDIS:

http://cordis.europa.eu/fp7/people/home_en.html

Marie Curie Actions:

http://cordis.europa.eu/fp7/mariecurieactions/home_en.html

3.4.9 Corresponding to following needs:

- ✓ Measures against brain drain / brain waste *****
- ✓ Support of mobility of WBC ICT Researchers ***
- ✓ Specific support to basic research ***

- ✓ Strengthen connection between basic and applied research ****
- ✓ Enhancement of RTD capacities of industry and SMEs **
- ✓ Support of research career development ****

3.5 FP7 Specific Programme: Capacities (subprogramme to 3.1)

3.5.1 Introduction

The Commission's proposals for the FP7 Capacities programme aim to enhance research and innovation capacities throughout Europe and ensure their optimal use. The Capacities programme operates in seven broad areas:

- Research infrastructures
- Research for the benefit of SMEs
- Regions of knowledge and support for regional research-driven clusters
- Research potential of Convergence Regions
- Science in society
- Support to the coherent development of research policies
- International cooperation

3.5.2 Duration

2007-2013

3.5.3 Objectives

The objective of this programme is to equip researchers with the necessary tools to maximise the competitiveness and quality of European research and innovation. This aim will be achieved through:

- Catalysing the development of **research infrastructures**, which play an increasing role in the advancement of knowledge and technology.
- Strengthening the **innovative capacities of SMEs** by helping them to increase their research efforts, extend their networks, better exploit research results and to acquire the necessary technological knowledge to bridge the gap between research and innovation.
- Supporting the development of European **Regions of Knowledge**, in particular by supporting the development of regional research-driven clusters, associating universities, research centres enterprises and local public authorities.
- Stimulating the realisation of the full research potential in the enlarged EU's **convergence and outermost regions**, allowing less advanced regions to contribute to the overall European research effort.
- Bringing **science and society** closer together to build an effective and democratic European Knowledge society.

- Providing support for the **coherent development of research policies** and improving the impact of regional, national and Community policies and initiatives.
- Implementing horizontal actions and measures in support of **international cooperation** to establish strategic partnerships and knowledge sharing with third countries.

3.5.4 Eligibility of WBC

As mentioned above, the WBC countries (except the Kosovo under UN Security Council Resolution 1244) are fully eligible as Associated Countries in FP7.

3.5.5 Conditions for funding

More information:

http://cordis.europa.eu/fp7/capacities/home_en.html

3.5.6 Fields/Areas of funding

Research Infrastructure

The overall objective of the 'Research infrastructures' part of the FP7 Capacities programme is to optimise the use and development of the best research infrastructures existing in Europe. Furthermore, it aims to help to create new research infrastructures of pan-European interest in all fields of science and technology.

Two new calls were published on 30 July 2009:

FP7-INFRASTRUCTURES-2010-1 relating to Integrating Activities, Construction of new infrastructures - preparatory phase, and Support to policy development and programme implementation

FP7-INFRASTRUCTURES-2010-2 relating to ICT-based e-Infrastructures, Construction of new infrastructures - implementation phase, and Support to policy development and programme implementation

Research for the benefit of SMEs

The aim is to strengthen the 'innovation capacity' of small and medium-sized enterprises (SMEs) in Europe and their contribution to the development of new technology based products and markets.

A new Call for proposal was published on 30 July 2009

FP7-SME-2010-1 will focus to solve common or complementary technological problems with a bottom-up scheme: the projects may address any research topic across the entire field of science and technology. The budget is 136 million euro.

Regions of Knowledge

The 'Regions of knowledge' initiative aims to strengthen the research potential of European regions, in particular by encouraging and supporting the development, across Europe, of regional 'research-driven clusters', associating universities, research centres, enterprises and regional authorities. It shall support innovative 'research-driven clusters' at a local and

regional level, including the Western Balkans. The aim is to increase the capacity of European regions to invest in and develop their commitment in research which can contribute significantly to economic development.

Research Potential

The major objective is to stimulate the realisation of the full research potential of the enlarged European Union by unlocking and developing the research potential in the EU's 'convergence regions' and outermost regions, and helping to strengthen the capacities of their researchers to successfully participate in research activities at EU level.

Two new Calls were published on 30 July 2009:

REGPOT-2010-1 will enable high quality research entities in EU convergence regions and Outermost regions. Any topic will cover including ICT with 31meuro (4 million for each project as Supporting Actions)

REGPOT-2010-5 will improve the WBC and will favour brain grain environment. Any research topic covered including ICT with 8 million euro (1 to 2 million for each project as Supporting Actions).

Science in Society

With a view to building an effective and democratic European knowledge-based society, the aim is to stimulate the harmonious integration of scientific and technological endeavour and associated research policies into European society. The new Work Programme, with the total budget of over 46 million euro, was officially published on 30 July 2009 and contains four Calls for Proposals, for example focussing on the role of universities in the process towards a knowledge-based society.

Support to the coherent development of research policies

This action aims to enhance the effectiveness and coherence of national and European Community research policies and their articulation with other policies, improving the impact of public research and its links with industry, and strengthening public support and its leverage effect on investment by private actors. It funds for example the ERAWATCH network, which informs about research policy in EU Member States and Associated Countries (and currently still does not cover all Western Balkan countries).

International Cooperation

In the area of International Cooperation the project WBC-INCO.NET was funded and in 2009 a call was launched to enhance the activities of this project towards innovation. The target is bi-regional coordination of S&T cooperation including priority setting and definition of S&T cooperation policies; bringing together policy makers, scientific community, civil society and private sector stakeholders from the EU and third countries to identify priorities and define policy orientations; implementing specific activities dedicated to strengthening participation from targeted countries and regions in FP7, including support for national contact points.

FP7-INCO-2010-1 will focus to enlarge the WBC-INCO.NET (project No 212029) to innovation stakeholders in order to build common research and innovation strategies and carry out a systematic analysis of the regional innovation needs.

3.5.7 *Budget*

Overall budget: 4.097 billion euro

3.5.8 *More information*

http://cordis.europa.eu/fp7/capacities/home_en.html

3.5.9 *Corresponding to following needs*

- ✓ Upgrading of research infrastructure *****
- ✓ Upgrade of information and e-infrastructure and internet connections ***
- ✓ Enhancement of regional RTD cooperation **
- ✓ Support of mobility of WBC ICT Researchers *
- ✓ Enhancement of RTD capacities of industry and SMEs *****
- ✓ Support to institution building *****

3.6 **JOINT RESEARCH CENTRE - JRC (subprogramme to 3.1)**

3.6.1 *Introduction*

The Joint Research Centre (JRC) is a research based policy support organisation and an integral part of the European Commission. As such, it is independent from national and private interests. The JRC carries out extensive research of direct concern to European citizens and industry. The work is split between institutional research in support of Commission policy-making, direct support for specific Directorates-General (DGs) and competitive activities in strategic relationships with the scientific and business communities.

Joint Research Centre (JRC) has trained in the past years several hundreds of experts from Western Balkans in workshops and courses, and has started including Western Balkan organisations into its European research networks and projects.

The JRC's structure is based on seven specialised institutes, located throughout the European Union.

3.6.2 *Duration*

The JRC is directly associated to the European Commission, therefore the "life span" is linked to the Commission's financial periods. The current period is running from 2007 – 2013.

3.6.3 *Objectives*

The objectives of the JRC is to provide customer-driven scientific and technical (S&T) support for the conception, development, implementation and monitoring of Community policies.

The JRC strongly supports the enlargement activities of the European Union and offers a wide range of participation possibilities for EU New Member States, Accession Countries, Candidate Countries and Potential Candidate Countries (NMS/AC/CC/PCC) by fostering collaboration with governmental organisations (or the like) from these countries, which will have an institutional role for providing S&T support to the implementation of policies, particularly through the associated scientific and technical organisations.

3.6.4 Eligibility of WBC

The opening of JRC activities to the Western Balkans since October 2004 has enabled experts from the region to participate in a number of specialised workshops dealing with the scientific and technical bases of EU legislation.

Special attention is given to candidatures of experts from the region – candidate countries and potential candidate countries. Over the last few years, JRC has made special efforts to promote the integration of organisations, researchers and experts from the WBC within its activities and projects.

An important tool to promote collaboration and exchange of knowledge and good practices, JRC organises over 100 specialised scientific and technical workshops annually, all of which are open to experts from the Western Balkans. The participation rate is still low but increasing every year. The thematic areas of these workshops included already ICT, foresight etc., all of which are important research topics in the European countries, including the Western Balkans.

3.6.5 Conditions for funding

The JRC's enlargement actions are composed of two main related instruments, which allow integration of researchers from WBC:

a) Workshops and Training Courses on Advanced Methods and Techniques for EU policies in order to:

- Assist the competent organisations in the WBC with the scientific and technical methods and techniques underpinning EU policy implementation
- Deepen ERA with all countries concerned

b) Short-term opportunities for Seconded National Experts (Call for Expression of Interest; experts from countries not associated to FP7 are not eligible)

In conjunction with the previous activity, the JRC offers a number of short-medium-term job openings which are available for Seconded National Experts (with preference of 12 months depending on the position and area).

3.6.6 Areas/fields for funding

Topics of consideration are organised into five policy themes for which the funding over the seven-year period of the Framework Programmes is as follows:

1. Prosperity in a knowledge intensive society
2. Solidarity and the responsible management of resources

3. Security and freedom
4. Europe as a world partner
5. The EURATOM programme

Information Society is one of the priority areas within the first theme (<http://ec.europa.eu/dgs/jrc/index.cfm?id=1630&lang=en>).

The Institute for Prospective Technological Studies (IPTS) is one of the seven scientific **institutes of the** European Commission's Joint Research Centre (JRC).

Based in Seville in Spain the IPTS mission is to provide customer-driven support to the **EU policy-making** process by developing science-based responses to policy challenges that have both a socio-economic as well as a scientific/ technological dimension.

The Institute's work is structured along the lines set out in the Seventh Framework Programme (FP7) and takes the form of **fifteen actions** in a range of areas, such as research and innovation, environment, energy and transport, information society, agriculture, rural development and public health. Regarding ICT the scientific actions include Role of the ICT industry in the evolving knowledge economy; ICT applications for society; Techno-economic Foresight for the Information Society.

JRC pursues enlargement and integration activities, e.g. Organisation of specialist workshops and conferences around Europe for invited participants from NMSs, CCs and PPCs; Setting up Information Days in CCs and organising Round Tables in NMSs; Promotion of the involvement of experts by hosting non-statutory staff (seconded national experts) from NMS and CCs within the framework of its work; Promotion of a continued integration of NMS/CCs and PPCs via joint participation in response to R&D calls; Progressive development of this "enlargement and integration" website as well as of the specific websites in each Institute.

3.6.7 Budget

The JRC is financed from a special funding line in FP7. In 2008 it was approx. 333 million euro of institutional funding and an additional 45 million euro of competitive activities.

3.6.8 More information

European Commission: Joint Research Centre

<http://www.jrc.ec.europa.eu>

<http://ec.europa.eu/dgs/jrc/index.cfm?id=1630>,

3.6.9 Correspondence to needs

- ✓ Support of mobility of WBC ICT Researchers *

3.7 Competitiveness and Innovation Framework Programme – CIP

3.7.1 Introduction

The Competitiveness and Innovation Framework Programme (CIP) is implemented in three specific programmes:

- the **Entrepreneurship and Innovation programme**, which provides for new types of financial instruments aimed at supporting SMEs;
- the **Information and Communications Technology Policy Support programme** (this programme will be covered by the next chapter!), focusing on the development of coordinated actions, the sharing of good practices and the deployment of interoperable solutions within Europe's information society; and – less relevant for the field of ICT,
- the **Intelligent Energy-Europe programme**, aimed at fostering sustainable development, security of supply and competitiveness as relates to energy.

3.7.2 Duration

2007 – 2013

3.7.3 Objectives

The Competitiveness and Innovation Framework Programme (CIP) aims to encourage the competitiveness of European enterprises. With small and medium-sized enterprises (SMEs) as its main target, the programme supports innovation activities (including eco-innovation), provides better access to finance and delivers business support services in the regions. It encourages a better take-up and use of information and communications technologies (ICT) and helps to develop the information society. It also promotes the increased use of renewable energies and energy efficiency.

3.7.4 Eligibility of WBC

The Western Balkan countries may associate to the different CIP programmes and not all countries have yet done so.

	Entrepreneurship and Innovation programme	Information and Communications Technology Policy Support programme	Intelligent Energy-Europe programme
Albania	MoU being negotiated ¹⁶		
Bosnia and Herzegovina			
Croatia	x	x	x
FYR of Macedonia	x		
Montenegro	x		
Serbia	x	Interest expressed	

3.7.5 Conditions for funding

Entrepreneurship and Innovation Programme (EIP)

The following actions are undertaken:

1. Access to finance for SMEs through "EU financial instruments"

These EU instruments target companies in different phases of their lifecycle: seed, start up, expansion and business transfer; and will support investments in technological development, innovation (including eco-innovation), technology transfer, and the cross border expansion of business activities. They are managed by the European Investment Fund (EIF) in cooperation with financial institutions.

2. "Enterprise Europe Network": a network of business and innovation service centres

Regional centres providing integrated business and innovation support services form part of a European network, drawing on the experience of the Euro Info Centres (EIC) and Innovation Relay Centres (IRC). They provide enterprises with a range of quality services to help make them more competitive.

3. Support for initiatives to foster entrepreneurship and innovation

Support will be given to encourage the trans-national networking of innovative companies and all other actors in the innovation process, including benchmarking initiatives and the exchange of best practice.

4. Eco-innovation - making sustainable development become a business reality

¹⁶ source: 2008 COWEB Report

Innovative products, processes and services aiming at reducing environmental impacts, preventing pollution or achieving a more efficient and responsible use of natural resources will be supported through three initiatives: financial instruments, network of actors and pilot and market replication projects..

5. Support for policy-making

Under the EIP a number of conferences can be organised to assemble and publicise sectoral knowledge, inform policy-makers, and make policy suggestions to increase the coherence and cooperation between EU Member States. The programme will also be used to support policy-makers; the latest trends and developments in certain sectors - as well as European and global markets- will be analysed in studies and the results disseminated.

Information Communication Technologies Policy support Programme (ICT PSP) – see next chapter

3.7.6 Fields/Areas of funding

For the field of ICT the two relevant programmes, the areas are the following:

Entrepreneurship and Innovation Programme (EIP)

- Better access to finance for SMEs through venture capital investment and loan guarantee instruments
- Business and innovation support services delivered through a network of regional centres
- Promotion of entrepreneurship and innovation
- Support for eco-innovation
- Support for policy-making that encourages entrepreneurship and innovation

Information Communication Technologies Policy support Programme (ICT PSP) – see next chapter

3.7.7 Budget

The final budget for the CIP is euro 3.62 billion.

3.7.8 More information

Commission website on CIP

http://ec.europa.eu/cip/index_en.htm

Work Programmes

<http://ec.europa.eu/cip/cipwp.htm>

Entrepreneurship and Innovation Programme

http://ec.europa.eu/cip/eip_en.htm

EIP Workprogramme (latest version 2009, check for updates)

http://ec.europa.eu/cip/docs/consolidated_eip_wp_may2009.pdf

Enterprise Europe Network

http://www.enterprise-europe-network.ec.europa.eu/index_en.htm

About ICT-Policy Support Programme

http://ec.europa.eu/information_society/activities/ict_psp/about/index_en.htm

ICT-PSP Work Programmes

http://ec.europa.eu/information_society/activities/ict_psp/about/themes/index_en.htm

ICT PSP Work Programme 2009 latest version 2009 (check for updates)

http://ec.europa.eu/information_society/activities/ict_psp/documents/ict_psp_wp2009.pdf

3.7.9 Corresponding to following needs

- ✓ Specific support to applied research ****
- ✓ Enhancement of RTD capacity of industries and SMEs *****

3.8 CIP specific programme: Information and Communication Technologies Policy Support Programme - ICT Policy Support Programme (ICT PSP) (subprogramme to 3.7)

3.8.1 Introduction

The ICT Policy Support Programme focuses on stimulating a wider adoption and more efficient take up and better use of ICT.

3.8.2 Duration

2007-2013

3.8.3 Objectives

This programme aims to support the integrated strategy i2010 - European Information Society 2010. The ICT PSP aims at stimulating innovation and competitiveness through the wider uptake and best use of ICT by citizens, governments and businesses. Businesses, in particular SMEs, can make more and better use of ICT to innovate in products, services and processes, and public organisations can take more advantage of advances in ICT in order to provide more efficient and higher quality services. The uptake of ICT in businesses is in general addressed by the private sector. Public policies need to focus on creating the conditions for business developments.

The objectives are:

- Developing a single European information space
- Strengthening the European internal market for ICT and ICT-based products and services
- Encouraging innovation through the wider adoption of and investment in ICT
- Developing an inclusive information society and more efficient and effective services in areas of public interest

- Improving of quality of life

3.8.4 Eligibility of WBC

Croatia is associated to the programme (MoU signed on October 25, 2007), Serbia also expressed interest to associate.

3.8.5 Conditions for funding

Three types of instruments have been identified:

Pilot (Type A) - building on initiatives in Member States or associated countries; Pilot A actions will help ensure the EU-wide interoperability of ICT-based solutions that are being launched or are already in operation in the Member States. They will help ensure cross border access to these services and avoid market fragmentation of innovative services and products.

Pilot (Type B) - stimulating the uptake of innovative ICT based services and products; Pilot B actions will support the implementation and uptake of novel ICT-based solutions.

Thematic Networks - providing a forum for stakeholders for experience exchange and consensus building; they will support experience sharing and consensus building on ICT policy implementation.

3.8.6 Fields/Areas of funding

In particular, it will include support for pilot actions using innovative ICT-based services of public interest; for the development of digital content and for enhancing the security of, and trust and confidence in, ICT and its applications. The latest call for proposals, e-Participation - empower and involve citizens in transparent decision making in the EU, opened on 5 June and closed on 23 September 2009.

In 2009, the workprogramme included the following topics:

Theme 1: ICT for health, ageing and inclusion

- 1.1: ICT for patient-centred health service
- 1.2: Innovative eHealth tools and services in real life - learning together
- 1.3: ICT for ageing well / independent living
- 1.4: e-Accessibility thematic network

Theme 2: Digital Libraries

- 2.1: European Digital Library
- 2.2: European Digital Library - aggregating digital content in Europeana
- 2.3: European Digital Library - digitising content for Europeana
- 2.4: Open access to scientific information
- 2.5: Use of cultural heritage material for education

Theme 3: ICT for government and governance

- 3.1: Enlargement of the e-Procurement Pilot PEPPOL
- 3.2: Enlargement of the e-IDM Pilot STORK

3.3: Inclusive eGovernance: flexible, personalised and multi-channel based service delivery targeted at the socially disadvantaged

3.4: User Centricity for e-Governance

Theme 4: ICT for energy efficiency in social housing

4.1: ICT for energy efficiency in social housing

4.2: ICT for prevention, alert and rescue to minimise impacts of climate change

Theme 5: Multilingual Web

5.1: Machine translation for the multilingual web

5.2: Multilingual Web content management: standards and best practices

5.3: Multilingual Web content management: methods, tools and processes

Theme 6: Public Sector Information

6.1: Legal aspects of Public Sector Information

6.2: Geographic Information

Theme 7: Internet evolution and security (including RFID)

7.1: A European infrastructure for secure information management

7.2: Strengthening SME competitive advantage through RFID implementation

Theme 8: Open innovation, user experience and living labs

8.1: Sharing of best practice across European Living Labs involving SMEs as key user- and provider- participants

3.8.7 Budget

The budget of the programme is 728 million euro

3.8.8 More information

ICT-PSP Work Programme

http://ec.europa.eu/information_society/activities/ict_psp/index_en.htm

3.8.9 Corresponding to following needs

- ✓ Specific support to applied research *****
- ✓ Enhancement of RTD capacities of industry and SMEs *****

3.9 European Cooperation in the field of Scientific and Technical Research - COST

3.9.1 Introduction

The acronym COST stands for European Cooperation in the field of Scientific and Technical Research. COST is one of the longest-running instruments supporting co-operation among scientists and researchers across Europe. COST is an intergovernmental framework for European Cooperation in Science and Technology, allowing the coordination of nationally-funded research on a European level. COST now has 36 member countries (with BiH having been accepted as the latest and 36th member in May 2009) and enables scientists to collaborate in a wide spectrum of activities in research and technology.

COST Actions are new, innovative, and interdisciplinary scientific networks of nationally funded research teams. They contribute to the scientific, economic, cultural or societal development of Europe, by supporting networking activities such as meetings, conferences, short term scientific exchanges and outreach activities. There are nine scientific COST Domain Committees formed by some of the most outstanding scientists of the European scientific community.

3.9.2 Duration

COST is supported by the Framework Programme, current programming period is 2007 – 2013.

3.9.3 Objectives

The goal of COST is to ensure that Europe holds a strong position in the field of scientific and technical research for peaceful purposes, by increasing European cooperation and interaction in this field. This research initiative makes it possible for the various national facilities, institutes, universities and private industry to work jointly on a wide range of Research and Development (R&D) activities.

COST has clearly shown its strength in non-competitive research, pre-normative cooperation, and solving environmental, cross-border and public utility problems. It has been successfully used to maximise European synergy and added value in research cooperation and is a useful tool to further European integration.

Ease of access for institutions from non-member countries also makes COST a very interesting and successful tool for tackling topics of a truly global nature. COST invites proposals for new COST Actions contributing to the scientific, economic, cultural or societal development of Europe.

3.9.4 Eligibility of WBC

Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Serbia are eligible to participate in COST as member countries.

3.9.5 Conditions for funding

COST does not fund the research in itself. An Action is based on a Memorandum of Understanding (MoU) accepted by the Governments of at least 5 COST member countries. The duration of an Action is generally 4 years.

COST collection dates take place regularly. Collection dates are usually in September and March, the next one being March 26, 2010.

3.9.6 Field/Area of funding

The nine COST domains are:

- Biomedicine and Molecular Biosciences
- Food and Agriculture
- Forests, their Products and Services
- Materials, Physical and Nanosciences
- Chemistry and Molecular Sciences and Technologies
- Earth System Science and Environmental Management
- **Information and Communication Technologies**
- Transport and Urban Development
- Individuals, Societies, Cultures and Health

In addition, Trans-Domain Proposals allow for broad, multidisciplinary proposals to strike across the nine scientific domains.

The following examples illustrate actual research within Information and Communication Technologies. The scope of the Domain is not restricted to these activities.

Information science and technologies: the area covers all the aspects related with the foundations, design, analysis, development, and application of hardware and software systems. Related areas are foundations of computer science, software development technologies, software engineering, intelligent systems, advanced interfaces, user aspects, information management, high performance computing, and open, embedded, and distributed systems.

Communication technologies: research in this area concentrates on the transfer of information from source to sink. Fundamental aspects cover physical, electromagnetic and functional modelling of all elements of information and communication systems such as terminals, antennas, transmission channels, networks, devices, components and materials. Research concerning photonic devices and the modelling and synthesis of electromagnetic meta-materials involves materials research, both in the optical and the submillimeterwave region. Here, cross-border interaction with Materials, Physical, and Nanosciences is required.

Societal aspects of ICT: research in this area covers both the influence of ICT on society and the requirements imposed by society on the ICT infrastructure. Interdisciplinary cooperation with disciplines dealing with societal needs is essential for the development of this research area.

An important area for this domain is multidisciplinary research – with an ICT core – in fields like sustainable development, health, attention to the elderly and the disabled, culture, learning, bioinformatics, and many others, performed in cooperation with the corresponding COST domains.

New ideas and initiatives are welcome as well those with high interdisciplinary elements and close links and overlaps with other domains.

3.9.7 Budget

210 million euro, COST is supported by the Framework Programme

3.9.8 More information

Website of the COST Programme

<http://www.cost.esf.org/>

ICT page

http://www.cost.esf.org/domains_actions/ict

List of COST Actions in the field of ICT

http://www.cost.esf.org/domains_actions/ict/Actions

3.9.9 Corresponding to following needs

- ✓ Identification and concentration on priority research areas *****
- ✓ Support of mobility of WBC ICT researchers *****
- ✓ Specific support to basic research *****

3.10 EUREKA

3.10.1 Introduction

Created as an intergovernmental initiative in 1985, EUREKA is a pan-European network for market-oriented, industrial Research and Development. It aims to enhance European competitiveness by supporting businesses, research centres and universities who carry out pan-European projects aimed at developing innovative products, processes and services.

3.10.2 Duration

EUREKA is an ongoing initiative.

3.10.3 Objectives

Through its flexible and decentralised network, EUREKA offers project partners rapid access to a wealth of knowledge, skills and expertise across Europe and facilitates access to national public and private funding schemes.

The internationally recognised EUREKA label adds value to a project and gives participants a competitive edge in their dealings with financial, technical and commercial partners.

Through an EUREKA project, partners develop new technologies for which they agree the Intellectual Property Rights and build partnerships to penetrate new markets.

3.10.4 Eligibility of WBC

Member Countries: Croatia, FYR of Macedonia, Serbia

Host of National Information Point: Albania, Bosnia and Herzegovina

Croatia is member since 2000

Serbia is member since 2002

FYR of Macedonia is member since 2008

Bosnia and Herzegovina joined in June 2009

Albania has the NIP status since 1992 (but status is dormant)

EUREKA projects with participation of countries from the region predominate in the areas of information technologies, new materials, and environment.

3.10.5 Conditions for funding

EUREKA supports three types of projects:

✓ EUREKA Cluster Projects

Clusters are long-term, strategically significant industrial initiatives. They usually have a large number of participants, and aim to develop generic technologies of key importance for European competitiveness, primarily in ICT (CATRENE (2008-2012), EURIPIDES (2006-2013), ITEA 2 (2006-2014), MEDEA+ (2001-2008)) and, more recently, in energy and biotechnology. Clusters bring together large companies along with SMEs, research institutes

and universities, sharing both the risk and benefits of innovation. The clusters initiative has large number of participants and long term strategy.

✓ Individual Projects (E!1782; E!1784...)

These are smaller, short term projects that focus on a specific technology area or business sector. They involve participants from at least two member countries. Result in a product, process or service with a significant advance in their sector. Eureka Umbrellas are thematic networks within the EUREKA framework which focus on a specific technology area or business sector. The main goal of an umbrella is to facilitate the generation of EUREKA projects in its own target area (in IT e.g. ECONTEC (2005-2009), EUREKA TOURISM (2006-2012)).

✓ Eurostars Projects

(see next chapter) Eurostars projects are small, short-term projects, involving participants from at least two member countries, the consortium leader being an R&D-performing SME. It is programmed jointly with the European Commission.

3.10.6 Fields/Areas of funding

- ✓ Electronics, Microelectronics
- ✓ Information Processing, Information System
- ✓ Telematics Technology
- ✓ Multimedia
- ✓ Telecommunications

3.10.7 Budget

Funding for Eureka is provided nationally. A list is provided at the following link <http://www.eureka.be/contacts/fundingList.do>

3.10.8 More information

Website of the Eureka Network

<http://www.eureka.be>

Thematic Area of Electronics and ICT

<http://www.eureka.be/thematic/showThematic.do?area=t01>

3.10.9 Corresponding to following needs

- ✓ Identification and concentration on priority research areas ****
- ✓ Specific support to applied research *****
- ✓ Enhancement of RTD capacities of industry and SMEs *****

3.11 EUROSTARS (sub-programme to 3.10)

3.11.1 Introduction

The Eurostars Programme is a European funding and support programme to be specifically dedicated to SMEs. Eurostars will stimulate them to lead international collaborative research and innovation projects by easing access to support and funding. See previous chapter, EUROSTARS is an EUREKA initiative.

3.11.2 Duration

EUROSTARS is an ongoing initiative.

Fourth Eurostars Cut-off: Thursday 25th February 2010 (hour to be confirmed)

3.11.3 Objectives

Its purpose is to provide funding for market-oriented research and development specifically with the active participation of R&D-performing small and medium-sized enterprises.

3.11.4 Eligibility of WBC

Member Countries: Croatia

Even if your organisation is based outside of the member countries of Eurostars, you may still be eligible to participate in a Eurostars project in addition to the minimum of two participants established in two different Eurostars member countries. To get more information on possible participation in a Eurostars project, please contact your EUREKA national project coordinator. You will find their details on www.eureka.be/contacts (see above).

The main participant must be a research performing SME. The minimum requirement is two participants in two different Eurostars countries.

3.11.5 Conditions for funding

The Eurostars Programme is open for funding applications on a continuous basis, with one or more cut-off dates each year.

3.11.6 Fields/Areas of funding

A Eurostars project is a European research and development project. It can address any technological area, but must have a civilian purpose and be aimed at the development of a new product, process or service. A Eurostars project is collaborative, meaning it must involve at least two participants (legal entities) from two different Eurostars participating countries. In addition, the main participant must be a research-performing SME from one of these countries.

The role of the SME participants in the project should be significant. At least 50% of the project's core activity should be carried out by SMEs. This percentage can, however, include

minor contracting. The consortium should be well balanced, which means that no participant or country will be required to invest more than 75% of the total project costs. The Eurostars Programme is aimed at stimulating these SMEs to lead international collaborative research and innovation projects by easing access to support and funding.

A Eurostars project should be market-driven: it must have a maximum duration of three years, and within two years of project completion, the product of the research should be ready for launch onto the market.

3.11.7 Budget

Funding for EUROSTARS is provided nationally. In each participating country, different national funding rules apply.

3.11.8 More information

Website of Eurostars Programme

<http://www.eurostars-eureka.eu>

3.11.9 Corresponding to following needs

- ✓ Specific support to applied research ***
- ✓ Enhancement of RTD capacities of industry and SMEs *****

3.12 SEE-ERA.NET PLUS (co-funded by 3.2)

3.12.1 Introduction

The SEE-ERA.NET PLUS is a European Commission's networking project for the integration of the Southeast European countries into the European Research Area through the opening of bilateral programmes. It is a follow up to SEE-ERA.NET project which was running 2004-2009 and launched a Pilot Joint Call in 2009. The currently running SEE-ERA.NET PLUS is a network of 14 ministries and 3 agencies in 14 European countries that includes all Western Balkan countries and works directly on the level of policy makers. The aim of the project is to run a call for research projects (which was launched in September 2009).

3.12.2 Duration

A Joint Call for European Research Projects is launched on September 1, 2009 within the SEE-ERA.NET PLUS project after a Pilot Joint Call was successfully launched in 2007. During SEE-ERA.NET PLUS no further calls are planned, but the sustainability of the Regional Research Programme (REP-SEE) is being discussed among the participating ministries.

3.12.3 Objectives

The SEE-ERA.NET PLUS project is committed to the networking of research activities within national, bilateral, and regional research programmes throughout Europe, especially targeting South Eastern Europe. Its main objective is to explore and exploit synergies among bilateral S&T agreements of the partner countries. Through the identification of complementarities and the implementation of joint initiatives, multilateral calls for research proposals, open to researchers from participating SEE-ERA.NET PLUS partner countries, are implemented.

3.12.4 Eligibility of WBC

The partner countries to submit projects include: Albania, Austria, BiH, Bulgaria, Croatia, Germany, Greece, France, FYR of Macedonia, Montenegro, Romania, Serbia, Slovenia, Turkey.

3.12.5 Conditions for funding

The funding for one project is up to a maximum of 150,000 euro for the project duration. Researchers are eligible to participate in projects up to the national funding limits and based on national funding rules and regulations. The concrete deliverables will have to include a utilization plan to ensure the sustainability of the results.

3.12.6 Fields/Areas of funding

Through the first SEE-ERA.NET "Pilot Joint Call for Research Proposals" more than 160 research teams from all participating countries in 32 selected projects received funding for cross-national research and networking. In the field of ICT the following fields were eligible for funding: ICT meeting societal challenges (for health, to improve inclusion and equal participation, for mobility, in support of the environment, for governments), ICT for content, creativity and personal development, ICT supporting businesses and industry, ICT for trust and confidence.

For the new calls for 2009/10 the SEE ERA NET PLUS is focusing on the following research areas in the field of ICT¹⁷:

- Software systems for learning process management and support
- ICT for energy efficiency

3.12.7 Budget

Budget: Call budget 3.5 million euro, the call will be launched in September 2009, it will follow a two-stage online application procedure. In stage one, the applicants will be asked to submit an Expression of Interest, not a full project proposal. After the evaluation procedure, the research teams who's EoI are ranked highly will be asked to submit full project proposals.

3.12.8 More information

For reference of Pilot Joint Research projects of the SEE-ERA.NET project see <http://www.see-era.net/pjc/index.html>

For information on the current SEE-ERA.NET PLUS call see <http://plus.see-era.net/pjc/index.html>

3.12.9 Corresponding to following needs

- ✓ Enhancement of regional RTD cooperation *****
- ✓ Identification and concentration on priority research areas ***
- ✓ Support of mobility of WBC ICT researchers **
- ✓ Specific support to basic research ***

¹⁷ The other thematic area funded is "AgroFood" with the subtopics: Preservation of indigenous species and traditional food products (in SEE/WBC) and the interdisciplinary field: Land use impact in agriculture on biodiversity.

3.13 Instrument for Pre-Accession Assistance – IPA

3.13.1 Introduction

The Instrument for Pre-accession Assistance (IPA) aims at providing targeted assistance to Candidate Countries (CC) and Potential Candidate Countries (PCC) for membership to the EU. It replaces the 2000-06 financial instrument for the Western Balkans CARDS and other pre-accession financial instruments.

3.13.2 Duration

2007 - 2013

3.13.3 Objectives

IPA is made up of five different components:

- ✓ Transition Assistance and Institution Building
- ✓ Regional and Cross-Border Cooperation
- ✓ Regional Development
- ✓ Human Resources Development
- ✓ Rural Development

The first two of which will apply to both potential candidate and candidate countries, the last three will apply to candidate countries only. 90% of the budget is allocated to National Programmes including areas of specific interest for each country under the five components mentioned above.

In areas, where there is a clear advantage to address more countries, thus in areas of common interest, cross-border issues, cooperation possibilities, the remaining 10% of IPA budget is allocated to Multi-Beneficiary Areas of Intervention (see below).

For RTD, the IPA aims to:

- ✓ Stimulate regional and international (EU – WBC) research cooperation
- ✓ Facilitate integration into ERA

Detailed actions to reach the goals:

- ✓ Support mapping of centres of excellence in specific thematic areas, relevant to WBC
- ✓ Facilitate further integration into ERA by exchanging information and best practices on role of research in support of economic development in a sustainable way;
- ✓ Bring different actors in the region together and identify priority elements necessary to achieve EU targets.

3.13.4 Eligibility of WBC

- Candidate Countries (CC): Croatia, FYR of Macedonia; are eligible for all five IPA components

- Potential Candidate Countries (PCC): Albania, Bosnia and Herzegovina, Serbia, Montenegro, Kosovo (according to UNSCR 1244) are eligible only for the first two components (thus *Transition Assistance and Institution Building* and *Regional and Cross Border Cooperation*)

3.13.5 Conditions for funding

National IPA is planned in the national governments. Areas of funding are limited through the eligible components. Some success cases are available that research was foreseen in the national IPA programming (e.g. Croatia, Montenegro, Serbia for nuclear research facilities, etc.).

The Multi-beneficiary MIPD 2008-2010 foresees support to stimulate cooperation in research and development (R&D) across Beneficiaries and with EU Member State partners to facilitate capacity building as well as the design of an integrated research policy and to foster regional economic development. Multibeneficiary IPA (2008-2010) is planning the institutional support of the Regional Cooperation Council (RCC) and “*Increased research cooperation across the Beneficiaries and with EU partners; Valorise research potential in the Region; Increased awareness of the importance of research to support sustainable economic development; Better integration of Beneficiaries into the European Research Area. Increased technical assistance to support the development of a regional research strategy; Support to Centre(s) of Excellence.*”

Furthermore, IPA supports “European Territorial Cooperation” (see next chapters) in the region.

3.13.6 Fields/Areas of funding

Thematic restrictions depend on the eligible component and on the specific programming instrument. See also next chapters.

3.13.7 Budget

As regards financial allocations, IPA will provide a total amount of 11,468 billion euro (current prices) over the 2007-2013 period. Each year, the Commission informs the European Parliament and the Council on its intentions regarding the breakdown of the total envelope.

3.13.8 More information

IPA general information:

http://ec.europa.eu/enlargement/how-does-it-work/financial-assistance/instrument-pre-accession_en.htm

IPA financial planning:

http://ec.europa.eu/enlargement/how-does-it-work/financial-assistance/planning-ipa_en.htm

http://ec.europa.eu/enlargement/pdf/mipd_multibeneficiary_2008_2010_en.pdf

3.13.9 *Corresponding to following needs*

- ✓ Upgrading of research infrastructure **
- ✓ Upgrade of information and e-infrastructure and internet connections *****
- ✓ Enhancement of regional RTD cooperation ****
- ✓ Implementation of EU standards/harmonisation ****
- ✓ Support to institution building ***

3.14 **European Territorial Cooperation (INTERREG IV) (partly funded by 3.13)**

3.14.1 *Introduction*

The third objective of the structural funds aims at strengthening **territorial cooperation** - cross-border, transnational and inter-regional - and at establishing cooperation networks and furthering the exchange of experience (funded by the ERDF). In the region of the Western Balkans the matching support is provided through IPA (Instrument for Pre-Accession, see previous chapter).

European Territorial Cooperation Objective (INTERREG IV) is subdivided between three strands of activity and in different programmes (% = share of budget):

- 52 cross-border co-operation programmes along internal EU borders (74%): In the region of the Western Balkans, cross-border schemes are also implemented as IPA Cross-Border Programmes and called for through Europeaid, different priorities are being set.
- 13 transnational co-operation programmes cover larger areas of co-operation such as the Baltic Sea, Alpine and Mediterranean regions (21%): Western Balkans are eligible for the programme “Adriatic”, “Mediterranean” and “South East Europe”.
- The interregional co-operation programme (INTERREG IVC) and 3 networking programmes (Urbact II, Interact II and ESPON) cover all 27 Member States of the EU (5%). They provide a framework for exchanging experience between regional and local bodies in different countries. WBC are not eligible.

See the **following chapters for details** on the different subdivisions.

3.14.2 *Duration*

2007 - 2013

3.14.3 *Objectives*

European Territorial Cooperation deals with a wide range of issues, which include:

- Encouraging entrepreneurship, especially the development of SMEs, tourism, culture and cross-border trade;
- - Improving joint management of natural resources;

- - Supporting links between urban and rural areas;
- - Improving access to transport and communication networks;
- - Developing joint use of infrastructure;
- - Administrative, employment and equal opportunities work.

3.14.4 Eligibility of WBC

Eligibility of WBC depends on the different programmes (see next chapters): WBC are eligible for specific cross-border cooperation programmes, for some transnational co-operation programmes and not for the interregional co-operation programme.

3.14.5 Conditions for funding

The individual programmes launch different calls for proposals.

3.14.6 Fields/Areas of funding

Border regions (including those with maritime border) and greater regions of transnational co-operation can take part under this objective. These projects require cooperation between partners in at least two different Member States. Priorities for Structural funds programmes under the **territorial cooperation** objective are:

- Innovation, Research ;
- Environment/ sustainable development;
- Accessibility;
- Sustainable communities, urban and rural development;
- Culture, education.

Projects would potentially involve transnational research, studies; networks of areas, organisations, SMEs; exchanges of staff, experts, information, and know-how; conferences, workshops; pilot and demonstration projects; marketing and communications; investment in infrastructure and/or SMEs.

3.14.7 Budget

The European Territorial Co-operation objective is financed by the European Regional Development Fund (ERDF) and supports cross-border, transnational and interregional co-operation programmes. The budget of 8.7 billion euro for this objective accounts for 2.5% of the total 2007-13 allocation for cohesion policy, including the allocation for Member States to participate in EU external border co-operation programmes supported by other instruments (IPA and ENPI). For European Territorial Co-operation the European Regional Development Fund (ERDF) regulation is applicable, in particular chapter 3.

3.14.8 More information

European Regional Policy Directorate

http://ec.europa.eu/regional_policy/index_en.htm

European Territorial Cooperation Website

http://ec.europa.eu/regional_policy/cooperation/index_en.htm

IPA funds

http://ec.europa.eu/regional_policy/funds/ipa/index_en.htm

List of Regional Development Programmes 2007-2013, Cross-border, transnational and interregional co-operation

http://ec.europa.eu/regional_policy/country/prordn/search.cfm?gv_pay=ALL&gv_reg=ALL&gv_obj=11&gv_the=ALL&lan=EN&gv_per=2

Cross-border programmes (not including IPA Cross-border programmes) – further links see next chapter 3.15

http://ec.europa.eu/regional_policy/cooperation/crossborder/index_en.htm

Transnational co-operation programmes – further links in the chapter 3.17

http://ec.europa.eu/regional_policy/cooperation/transnational/index_en.htm

3.14.9 Corresponding to following needs

- ✓ Enhancement of regional RTD cooperation ****
- ✓ Identification and concentration on priority research areas ****
- ✓ Specific support to basic research ***
- ✓ Specific support to applied research **
- ✓ Enhancement of RTD capacities of industry and SMEs **
- ✓ Support to institution building ****

3.15 Cross-border cooperation (CBC) programmes under the European Territorial Cooperation Objective (sub-programme to 3.14)

3.15.1 Introduction

The second IPA component is the cross-border cooperation (CBC) between the EU Member States, candidate and potential candidate countries.

The cornerstone of IPA CBC is the principle of “common benefit”. IPA CBC operates on both sides of the border based on a single set of rules, thus providing the opportunity for fully equal and balanced programming and decision making structures between Member States and candidate/potential candidate countries.

From measures financed under IPA CBC both parties have to benefit, therefore, joint programmes, joint management and joint financing of projects are required. Therefore, IPA CBC is meant to promote enhanced cooperation and progressive economic integration between the EU and the candidate/potential candidate countries.

3.15.2 Objectives

IPA CBC will combine cohesion and external relation objectives taking into account the specific individual needs of the border regions:

- Development of cross-border economic, social, and environmental activities of border areas;
- Addressing common challenges in the field of environment, public health, prevention, and fight against organized crime, etc.;
- Ensuring efficient and secure borders;
- Promoting legal and administrative cooperation;
- Promoting local “people to people” type actions.

3.15.3 Fields/Areas of funding

Research as such is not the main funding area, but in order to foster economic development innovation activities (cooperation between SMEs, education, research & development organisations for improving business innovativeness and technology, exchange of know-how, specific research studies e.g. to identify market gaps, cluster initiatives, etc.) are targeted. Most cross-border cooperation programmes mention ICT among the priority fields of cooperation (e.g. also stimulating use of ICT in production, marketing and management of SMEs).

3.15.4 More Information

The following list is not exhaustive:

- ✓ **Bulgaria-Serbia** IPA Cross-border Co-operation Programme 2007-2013

http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=25

<http://www.ipacbc-bgrs.eu/eng>

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/153&format=HTML&aged=0&language=EN&guiLanguage=en>

- ✓ **Serbia and Croatia** IPA Cross-Border Cooperation Programme 2007-2013

<http://www.croatia-serbia.com>

- ✓ **Romania-Serbia** Neighbourhood Programme 2004-2006

http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=5

<http://www.mdlpl.ro/stiri.php?s=574&lang=en>

<http://www.romania-serbia.net/>

- ✓ **Serbia-Montenegro** Cross-Border Cooperation Programme 2007-2013

http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=7

- ✓ **Serbia - Bosnia and Herzegovina** Cross-Border Cooperation Programme 2007-2013

http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=33

✓ Bulgaria – **former Yugoslav Republic of Macedonia** IPA Cross-border Co-operation Programme 2007-2013

<http://www.ipa-cbc-007.eu/en/page.php?c=4>

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/38&format=HTML&aged=0&language=EN&guiLanguage=en>

✓ Greece-**Former Yougoslav Republic of Macedonia** (FYROM) IPA Cross-border Co-operation Programme 2007-2013

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/157&format=HTML&aged=0&language=FR&guiLanguage=en>

✓ Greece-**Albania** IPA Cross-border Co-operation Programme 2007-2013

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/154&format=HTML&aged=0&language=EN&guiLanguage=en>

✓ Hungary-**Croatia** IPA Cross-border Co-operation Programme 2007-2013

<http://www.hu-hr-ipa.com/>

<http://www.strategija.hr/Default.aspx?art=952&sec=2>

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/116&format=HTML&aged=0&language=EN&guiLanguage=en>

✓ Hungary-**Serbia** IPA Cross-border Co-operation Programme 2007-2013

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/115&format=HTML&aged=0&language=EN&guiLanguage=en>

✓ Romania-**Serbia** IPA Cross-border Co-operation Programme 2007-2013

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/25&format=HTML&aged=0&language=EN&guiLanguage=en>

✓ Slovenia-**Croatia** IPA Cross-border Co-operation Programme 2007-2013

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/24&format=HTML&aged=0&language=EN&guiLanguage=en>

✓ **Serbia-Montenegro** IPA Cross-border Co-operation Programme

<http://www.cbccro-mne.org/>

3.16 Adriatic Cross Border Programme (sub-programme to 3.15)

3.16.1 Introduction

Under the **IPA Adriatic Cross Border** the most relevant objective is in the Priority 1 - Economic, Social and Institutional Cooperation. The general objective of the Priority is "*Strengthening research and innovation in order to contribute to competitiveness and increasing the development of the Adriatic area through economic, social and institutional*

cooperation". The Priority is intended to contribute, through economic, social and institutional cooperation, to the development of research, strengthening of competitiveness and innovative capacity, development and application of knowledge in the Adriatic area.

The priority 1 *Economic, social and institutional cooperation* is related for ICT research in particular **Measure 1.1 "Research and innovation"**.

The measure 1.1 aims at improving research capacity by rising competence levels, encouraging transfer of innovation by the creation of networks among the entrepreneurial, institutional, academic, training and research sectors, and principally by promoting joint activities.

The Priority 1 budget allocated for the first Call for proposals is euro 25,000,000.00 (twenty five million euro), of which euro 21,250,000.00 (85%) ensured by Community IPA funds and euro 3,750,000.00 (15%) ensured by the public national co-financing.

3.16.2 Eligibility of WBC

- **Albania** (Fier, Durrës, Lezhë, Shkodër, Tiranë, Vlorë)
- **Bosnia-Herzegovina** (Bileća, Čapljina, Čitluk, Gacko, Grude, Jablanica, Konjic, Kupres, Livno, Ljubinje, Ljubuški, Mostar, Neum, Nevesinje, Posušje, Prozor/Rama, Ravno, Široki Brijeg, Stolac, Berkovići, Tomislavgrad, Trebinje and Istočni Mostar)
- **Croatia** (Dubrovnik-Neretva, Istra, Lika-Senj, Primorje-Gorski kota, Šibenik-Knin, Split-Dalmatia and Zadar)
- **Montenegro** (Bar, Budva, Cetinje, Danilovgrad, Herceg Novi, Kotor, Nikšić, Podgorica, Tivat, Ulcinj)
- **Serbia** (whole territory - phasing out)
- Other regions covered:
- **Greece:** Kerkyra and Thesprotia.
- **Italy:** Gorizia, Trieste, Udine, Padova, Rovigo, Venezia, Ferrara, Forlì-Cesena, Ravenna, Rimini, Ancona, Ascoli Piceno, Macerata, Pesaro-Urbino, Chieti, Pescara, Teramo, Campobasso, Bari, Brindisi, Foggia, and Lecce. *Territorial derogation: L'Aquila, Pordenone, Isernia, and Taranto.*
- **Slovenia:** Obalno-kraška. *Territorial derogation: Goriška regija and Notranjsko-kraška regija.*

3.16.3 More information

IPA Adriatic CBC Programme

<http://www.adriaticipabc.org/>

3.17 Transnational programmes under the European Territorial Cooperation Objective (sub-programme to 3.14)

3.17.1 Introduction

The transnational programmes add an important extra European dimension to regional development, developed from analysis at a European level, leading to agreed priorities and a coordinated strategic response.

3.17.2 Duration

2007-2013

3.17.3 Objectives

Objective of the programme is to enhance regional cooperation

3.17.4 Conditions for funding

There are currently 13 transnational co-operation programmes; countries from the West Balkans are eligible for two out of them:

- Northern Periphery
- Baltic Sea
- North West Europe
- North Sea
- Atlantic Coast
- Alpine Space
- Central Europe
- South West Europe
- **Mediterranean**
- **South East Europe**
- Caribbean Sea
- Acores-Madeira-Canarias (Macaronesia)
- Indian Ocean Area

3.17.5 Fields/Areas of funding

Cooperation takes place on matters such as communication corridors, flood management, international business and research linkages, and the development of more viable and sustainable markets. Themes covered include:

- Innovation, especially networks of universities, research institutions, SMEs;
- Environment, especially water resources, rivers, lakes, sea;
- Accessibility, including telecommunications, and in particular the completion of networks;

- Sustainable urban development, especially polycentric development.

3.17.6 Eligibility of WBC

Countries from the Western Balkans are only eligible for two of the programmes. Specification is provided in the next chapters.

3.17.7 More information

List of transnational programmes

http://ec.europa.eu/regional_policy/atlas2007/transnational/index_en.htm

3.18 South East Europe Programme (sub-programme to 3.17)

3.18.1 Introduction

The **South East Europe (SEE)** Programme 2007 – 2013 is dedicated to transnational programme projects. The Managing Authority of the SEE Programme (Hungarian National Development Agency) and the partner states (Albania, Austria, Bosnia- Herzegovina, Bulgaria, Croatia, the former Yugoslav Republic of Macedonia, Greece, Hungary, Italy, Republic of Moldova, Montenegro, Romania, Serbia, Slovakia, Slovenia and Ukraine) already launched in 2008 the first call for projects for transnational co-operation in the South Eastern area of Europe to be co-financed by ERDF and IPA under this programme.

The priority 1 is *Economic, social and institutional cooperation* is related for ICT research in particular **Measure 1.1 “Research and innovation”**.

3.18.2 Duration

2007-2013

3.18.3 Objectives

Regional cooperation shall be carried out in the following priority areas:

- Priority 1: Facilitation of innovation and entrepreneurship
- Priority 2: Protection and improvement of the environment
- Priority 3: Improvement of accessibility
- Priority 4: Development of trans-national synergies for sustainable growth areas
- Priority 5: Technical assistance to support implementation and capacity building

The programme shall facilitate innovation, entrepreneurship, knowledge, the economy and information society by concrete co-operation action and visible results.

3.18.4 Eligibility of WBC

WBC (entire territory): Albania, Bosnia-Herzegovina, Croatia, FYR of Macedonia, Montenegro, Serbia

Other countries (entire territory): Austria, Bulgaria, Greece, Hungary, Republic of Moldova, Romania, Slovakia, Slovenia

Partial eligibility: Italy: Lombardia, Prov. Autonoma Bolzano/Bozen, Prov. Autonoma Trento, Veneto, Friuli-Venezia-Giulia, Emilia Romagna, Umbria, Marche, Abruzzo, Molise, Puglia Basilicata; Ukraine: Chernivetska Oblast, Ivano-Frankiviska Oblast, Zakarpatska Oblast, Odessa Oblast

3.18.5 Conditions for funding

Specific funding conditions exist according to funding line and action.

3.18.6 Fields/Areas of funding

Funding areas have to fall under the above mentioned objectives. The projects' thematic focus must fulfil the criteria of mutual interest and mutual benefit for the participating regions.

ICT can be covered under Priority 1 and Priority 3:

Facilitation of innovation and entrepreneurship

aims to contribute specifically to the future development of South-East Europe as a place of innovation, to facilitate innovation, entrepreneurship and the knowledge economy and to enhance integration and economic relations in the co-operation area. These objectives can be achieved through the development of technology & innovation networks, the promotion of an enabling environment for innovative entrepreneurship and the enhancement of the framework conditions for innovation. Examples of projects which could be supported include: feasibility studies, joint training courses connected to innovation and technology, creating networks of small and medium enterprises (SMEs) etc.

Improvement of accessibility

is aimed at connecting local and regional actors to the European Networks (including road, rail, inland and sea transport). This includes physical infrastructure as well as access to the Information Society. It also promotes co-ordinated preparation for the development of accessibility networks and the support of multi-modality. This objective can be achieved through co-ordinating the promotion, planning and operating of primary and secondary transportation networks, the development of strategies tackling the "digital divide" and the improvement of framework conditions for multi-modal platforms.

3.18.7 Budget

European Territorial Cooperation is financed through the European Regional Development Fund (ERDF) and Instrument for Pre Accession (IPA). The total budget of the programme is € 245 million and the Community assistance through the European Regional Development Fund (ERDF) amounts to € 206 million.

The duration of projects must not exceed 36 months.

3.18.8 More information

Southeast Europe Transnational cooperation Programme

www.southeast-europe.net

3.19 MED Programme

3.19.1 Introduction

The MED Programme is financed by the European Union as an instrument of its regional policy and of its new programming period.

The partnership is enlarged by the participation of Mediterranean countries which are candidates or potential candidates to the European Union.

3.19.2 Duration

2007-2013

3.19.3 Objectives

- To improve the area's competitiveness in a way that guarantees growth and employment for the next generations (Lisbon strategy).
- To promote territorial cohesion and environmental protection, according to the logic of sustainable development (Goteborg strategy)

According to the global objectives of Med and the orientations defined by the European Union, especially in the ERDF regulations, four priority axes have been determined.

3.19.4 Eligibility of WBC

The programme covers the coastal and Mediterranean regions of nine EU Member States. Beyond the eligible regions, the participation of non-eligible Med areas is possible but limited. In addition, the Med programme has invited Mediterranean countries candidates or potentially candidates to the European Union. With the starting of the programme, its cooperation area includes **Croatia** and **Montenegro**.

Med programme covers the following areas:

Cyprus: the entire country

France: 4 regions - Corse, Languedoc-Roussillon, Provence Alpes Côte d'Azur, Rhône-Alpes

Greece: the entire country

Italy : 18 regions : Abruzzo, Apulia, Basilicata, Calabria, Campania, Emilia-Romagna, Friuli-Venezia Giulia, Lazio, Liguria, Lombardy, Marche, Molise, Umbria, Piedmonte, Sardinia, Sicily, Tuscany, Veneto.

Malta: the entire country

Portugal: 2 regions - Algarve, Alentejo

Slovenia: the entire country

Spain: 6 autonomous regions - Andalusia, Aragon, Catalonia, Balearic islands, Murcia, Valencia - and the two autonomous cities - Ceuta and Melill

United-Kingdom: 1 region of economic programming - Gibraltar

3.19.5 Fields/Areas of funding

The programme MED has defined specific priorities, an eligible space and implementing structures, especially Joint Technical Secretariat (JTS).

Each axis is composed of several specific objectives.

Axe 1: Strengthening innovation capacities

- Objective1.1: Dissemination of innovative technologies and know-how.
- Objective1.2: Strengthening strategic cooperation between economic development actors and public authorities

The other axes are:

Axe 2: Environmental protection and promotion of a sustainable territorial development

Axe 3: Improvement of mobility and of territorial accessibility

Axe 4: Promotion of a polycentric and integrated development of the Med space

Between 2007 and 2013, transnational cooperation in Med programme will essentially be based on previous cooperation areas, drawing Medocc and Archimed areas together. It also associates Cyprus, and Slovenia, Member states since 2004.

3.19.6 Budget

More than 250 billion euros

3.19.7 More information

Transnational Cooperation Mediterranean

<http://www.programmemed.eu/index.php?id=13360&L=1>

3.20 European Investment Bank - EIB

3.20.1 Introduction

The INNOVATION 2010 programme was set up by the European Investment Bank (EIB) to respond to the Lisbon Agenda and support Europe's competitiveness, innovation potential and knowledge-based economy.

3.20.2 Duration

2000 -

3.20.3 Objectives

The i2i programme centres on three objectives:

- ✓ Education and training: the modernisation of IT equipment of i.e. universities is supported
- ✓ Research and development: the i2i programme finances (1) public RTD programmes with focus on investment which involves cooperation with Community programmes or international public research centres, (2) private sector participation in public research, (3) the establishment of centres of RTD excellence to push the development of science and (4) intangible investments i.e. research expenditure and patents, particularly for SMEs within the framework of global loans
- ✓ **ICT networks** (see Fields/Areas of funding)

3.20.4 Eligibility of WBC

EIB support through the i2i programme is given to all Western Balkan Countries.

3.20.5 Conditions for funding

Financing is facilitated through

- ✓ Senior loans
- ✓ Risk-sharing or structured loans through the Structured Finance Facility (SFF)

3.20.6 Fields/Areas of funding

(1) ICT projects in broadband and multimedia networks, (2) the modernisation and extension of existing networks, (3) the establishment of physical and virtual infrastructure

3.20.7 Budget

The EIB aims to mobilise 50 million euro over the current decade.

3.20.8 More information

<http://www.eib.org/projects/topics/innovation/index.htm>

Information and Communications Technology Networks, including Audiovisual

<http://www.eib.org/projects/topics/innovation/i2i-information-and-communications-technology-networks/index.htm>

3.20.9 Corresponding to the following needs

- ✓ Upgrading of research infrastructure *****
- ✓ Upgrade of information and e-infrastructure and internet connections **
- ✓ Enhancement of RTD capacities of industry and SMEs **
- ✓ Support of mobility of WBC ICT Researchers *

3.21 LIFE LONG LEARNING Programme (LLL)

3.21.1 Introduction

The European Commission has integrated its various educational and training initiatives under a single umbrella, the Lifelong Learning Programme:

Comenius for schools

Erasmus for higher education

Leonardo da Vinci for vocational education and training

Grundtvig for adult education

3.21.2 Duration

2007-2013

3.21.3 Objectives

The general objective of the Programme is to contribute through lifelong learning to the development of the EU as an advanced knowledge society, with sustainable economic development, more and better jobs and greater social cohesion, while ensuring good protection of the environment for future generations. In particular, it aims to foster interchange, cooperation and mobility between education and training systems within the EU so that they become a world quality reference.

The objectives mentioned above are pursued through the implementation of four specific programmes, completed by transversal measures and a new programme (Jean Monnet) focusing on European integration.

Comenius (School education)

Among many other aspects, as regards the specific topic of ICT, projects for school education networks are funded.

Erasmus (Higher Education)

It shall address the teaching and learning needs of all those in formal higher education and vocational education and training at tertiary level, whatever the length of their course or

qualification may be and including doctoral studies, and the institutions and organisations providing such education and training.

Leonardo da Vinci (Vocational Education and Training)

It addresses ICT in the context of vocational education and training covering this sector.

Transversal programme

The transversal programme incorporates four key activities, policy cooperation in lifelong learning within the Community; promotion of language learning; **development of innovative ICT-based content, services, pedagogies and practice for lifelong learning**; and dissemination and exploitation of results of actions supported under the programme and previous related programmes, and exchange of good practice.

Jean Monnet

Jean Monnet is the European Community programme for improving the understanding of European integration. The objective of the Jean Monnet Programme is to promote knowledge on European integration on a world-wide level.

3.21.4 Eligibility of WBC

The programme is open to all Western Balkan countries, but they need to associate to the programme which has not yet been done by all of them. Countries eligible are the 27 Member States and Norway, Iceland, Liechtenstein Turkey, **Croatia** and **FYR of Macedonia** (in other WBC preparations for association are ongoing).

The European Commission has announced the addendum to the Call for Proposals 2009 (DG EAC/31/08) of the Lifelong Learning Programme (LLP), which allows the Republic of Croatia and the Former Yugoslav Republic of Macedonia to participate in the Lifelong Learning Programme under the preparatory measures phase. The addendum is limited to setting the conditions relevant to applicants established in the Republic of Croatia and in the Former Yugoslav Republic of Macedonia. Their participation is limited to a restricted number of actions, clearly indicated in the text of the addendum. The preparatory measures are funded by the IPA funds (Instrument of pre-accession).

3.21.5 Conditions for funding

Participants can be:

- pupils, students, trainees and adult learners;
- staff involved in any aspect of lifelong learning; people in the labour market;
- learning providers;
- the persons and bodies responsible for systems and policies concerning any aspect of lifelong learning at local, regional and national level;
- enterprises, social partners and their organisations at all levels, including trade organisations and chambers of commerce and industry;
- bodies providing guidance, counselling and information services relating to any aspect of lifelong learning;

- associations working in the field of lifelong learning, including students', trainees', pupils', teachers', parents' and adult learners' associations;
- research centres and bodies concerned with lifelong learning issues;
- and non-profit organisations, voluntary bodies, NGOs.

3.21.6 Fields/Areas of funding

Depending on the different sub-programme, LLL funds activities such as mobility but also pilot projects.

The Programme, as per the Commission's initial proposal shall comprise support for the following actions:

- mobility of people in lifelong learning in Europe;
- bilateral and multilateral partnerships;
- multilateral projects designed to improve national education and training systems; unilateral and national projects;
- multilateral projects and networks;
- observation and analysis of policies and systems in the field of lifelong learning, the establishment of reference material, including surveys, statistics, analyses and indicators, action to support transparency and recognition of qualifications and prior learning, and action to support cooperation in quality assurance;
- operating grants to support certain operational and administrative costs of organisations active in the field covered by the Integrated Programme; and other initiatives in line with the objectives of the Integrated Programme('Accompanying Measures').

3.21.7 Budget

The budget allocation for the Lifelong Learning programme stands at 6.970 billion euro.

3.21.8 More information

European Commission Lifelong Learning Programme website

http://ec.europa.eu/education/programmes/newprog/index_en.html

Education, audiovisual and culture executive agency

http://eacea.ec.europa.eu/llp/index_en.php

3.21.9 Corresponding to following needs

- ✓ Upgrade of information and e-infrastructure and internet connections *
- ✓ Enhancement of regional RTD cooperation *****
- ✓ Support mobility of WBC ICT researchers *
- ✓ Support of transformation of universities from teaching to research institutions *****

3.22 TEMPUS IV

3.22.1 Introduction

In the new phase of the Tempus programme, stronger emphasis is placed on promoting reforms in convergence with the Bologna process and the Lisbon Agenda, with regional priorities structured around the main components of the EU higher education modernisation agenda, a stronger policy dialogue with national authorities and a new focus on partnerships between universities and enterprises. A Decision allocating 19.55 million euro for all the Western Balkans was adopted under IPA 2007¹⁸.

The Tempus programme funds cooperation projects in the areas of curriculum development and innovation, teacher training, university management, and structural reforms in higher education. It puts special emphasis on the mobility of academic and administrative staff from higher education institutions, both from the EU and the partner countries.

3.22.2 Duration

2007-2013

3.22.3 Objectives

The specific objectives of Tempus are as follows:

- To promote the reform and modernisation of higher education in the Partner Countries;
- To enhance the quality and relevance of higher education to the world of work and society in the Partner Countries;
- To increase the capacity of higher education institutions in the Partner Countries and the EU, in particular their capacity to co-operate internationally and to continually modernize, and to assist them in opening up to society at large, the world of work and the wider world in order:
 - to overcome inter-country fragmentation in the area of higher education and inter-institutional fragmentation in countries themselves;
 - to enhance inter-disciplinarity and trans-disciplinarity between university faculties;
 - to enhance the employability of university graduates;
 - to make the European Higher Education Area more visible and attractive in the world;
- To foster the reciprocal development of human resources;

¹⁸ Commission Decision C(2007)5280 of 5.11.2007.

- To enhance mutual understanding between peoples and cultures of the EU and the Partner Countries.

Tempus also contributes to preparing the pre-accession countries of the Western Balkans for their participation in the EU's Lifelong Learning Programme

3.22.4 Eligibility of WBC

All WBC are eligible to participate in activities under the Tempus programme.

Altogether, there are four groups of eligible countries:

- ✓ 27 Member States of the European Union;
- ✓ **6 countries of the Western Balkans region, as well as Kosovo (UN Resolution 1244);**
- ✓ 16 countries in the Southern and Eastern neighbouring area of the European Union and the Russian Federation;
- ✓ Central Asian countries.

Institutions from the following five countries may participate in Tempus projects as partners, but only on a self-financing basis: Turkey and the EFTA countries (Iceland, Liechtenstein, Norway and Switzerland).

3.22.5 Conditions for funding

Tempus finances three types of Actions:

- ✓ Joint Projects based on multilateral partnerships between higher education institutions in the EU and the Partner Countries aimed at exchanging knowledge and know-how between EU universities and institutions in the Partner Countries and between Partner Country institutions themselves in certain cases. Joint Projects are implemented at institutional level. They aim to help develop curricula, enhance university governance and address issues relevant for Higher education and society. Joint Projects may include small scale mobility activities of short duration for students, academic staff, researchers, university administrators and companies.
- ✓ Structural Measures seek to contribute to the development and reform of education institutions and systems at national level in the Partner Countries. They can address issues linked to the reform of governance structures and systems (qualification systems, quality assurance, etc.) or enhancing the links between higher education and society. Structural Measures can include studies and research, conferences and seminars, training courses, policy advice and dissemination of information.
- ✓ Accompanying Measures comprise of dissemination and information activities, such as thematic conferences, studies and activities aiming at the identification and exploitation of good practice, stakeholder consultations, etc.

Joint Projects and Structural Measures are implemented through regular Calls for Proposals, while Accompanying Measures are launched through Calls for Tender or Framework Contracts.

Every year, the Calls for Proposal contain all the necessary information on how to apply for funding and the criteria that need to be met in order to obtain funding.

3.22.6 Fields/Areas of funding

No specific areas are addressed in the programme.

3.22.7 Budget

The Tempus budget allocated to the Western Balkan countries comes from IPA funds. In general 80 % of the Tempus operational budget is allocated to Joint European Projects, 17 % to Structural and Complementary Measures and 3 % to Individual Mobility Grants. Project funding ceiling by project type:

- ✓ Joint European Projects (JEPs) have a duration of two or three years with a maximum budget of 300 to 500.000 euro (depending on their duration) that has to be co-funded for at least 5 % of its total amount.
- ✓ Structural Measures have a duration of one year with a maximum budget of 150.000 euro that has to be co-funded for at least 5 % of the total amount.
- ✓ Complementary Measures have a duration of one year with a maximum budget of 150.000 euro that has to be co-funded for at least 5 % of the total amount.

3.22.8 More information

Education, Audiovisual and Culture Executive Agency

http://ec.europa.eu/education/programmes/tempus/index_en.html

Tempus

http://eacea.ec.europa.eu/tempus/index_en.php

3.22.9 Corresponding to following needs

- ✓ Upgrading of research infrastructure **
- ✓ Enhancement of regional RTD cooperation ****
- ✓ Support of mobility of WBC ICT researchers *
- ✓ Support of transformation of universities from teaching to research institutions ****
- ✓ Institution building **

3.23 ERASMUS MUNDUS (sub-programme to 3.21)

3.23.1 Introduction

The European Commission manages the budget and sets priorities, targets and criteria for the Programme. Furthermore, it guides and monitors the general implementation, follow-up and evaluation of the Programme at European level. The Education, Audiovisual and Culture Executive Agency (EACEA) is responsible for the implementation.

The programme started in 2004 to promote European higher education as a centre of excellence in the world.

3.23.2 Duration

The Erasmus Mundus Programme 2009-2013 is open to higher education institutions and to any organisation active in the field of higher education and research as well as to students, doctoral candidates, teachers, researchers and university staff (academic and/or administrative) from any part of the world.

3.23.3 Objectives

The programme enables European and third-country universities to join forces in joint programmes or collaborative partnerships, and to grant scholarships to European and third-country students for an international study experience.

3.23.4 Eligibility of WBCs

The Erasmus Mundus Programme 2009-2013 is open to higher education institutions and to any organisation active in the field of higher education and research as well as to students, doctoral candidates, teachers, researchers and university staff (academic and/or administrative) from any part of the world.

Applicants must be HEIs located in an eligible applicant country (i.e. a Member State of the European Union, an EEA-EFTA State, Turkey, the **Western Balkan** countries or Switzerland) and must be recognised as HEIs by the relevant authorities of the country in which they are located. For the purpose of the Erasmus Mundus Programme and for the applicant countries concerned, a HEI is deemed as being recognised if it has been awarded an Erasmus University Charter under the Lifelong Learning Programme. If an applicant has not been awarded an Erasmus University Charter, the Agency will check with the Erasmus Mundus National Structure¹⁷ concerned whether the institution in question corresponds to the definition of HEI given in Article 2 of the Programme Decision.

3.23.5 Conditions for funding

Conditions of funding depend on the type of organisation. The funding opportunities are the following:

(A) Higher education institutions organised into consortia/partnerships can participate in:

- Consortia to develop and implement joint masters/doctoral programmes (Action 1);
- Partnerships (Action 2);
- Consortia to develop and implement promotion projects (Action 3).

(B) Other bodies

1) Other public or private bodies active in the field of education and research can participate in:

- Consortia to develop and implement joint masters/doctoral programmes (Action 1).
- - Consortia to develop and implement promotion projects (Action 3).

Enterprises and other employers can participate in:

- Consortia to develop and implement joint doctoral programmes (Action 1).

Erasmus Mundus National Structures can participate in:

- Consortia to develop and implement promotion projects (Action 3).

2) Other bodies which could be particularly relevant for the objectives and activities of the programme

Associates partners from the eligible countries can be involved in the Partnerships (Action 2).

They play an active role in the action but they are not beneficiaries and may not receive funding from the grant.

(C) Students and academics

Students in higher education can receive scholarships for:

- Undergraduate studies (Action 2);
- Masters studies (Actions 1 and 2);

Doctoral candidates can receive fellowships for:

- Doctoral studies (Actions 1 and 2);
- Post-doctoral studies (Action 2);

Teachers and researchers can receive fellowships for:

- Teaching and research periods (Actions 1 and 2);

Other academic staff can receive scholarships / fellowships under Actions 1 and 2

3.23.6 Fields/ Areas for funding

The programme covers joint doctoral programmes, increased financial support for European students, as well as collaborative partnerships with specific world regions to the benefit of all partners involved.

- The support of joint programmes of outstanding academic quality at Master's and Doctoral level, including a scholarship scheme for high-calibre EU and third-country students and academics.

- The promotion of partnerships between European and third-country universities in specific world regions as a basis for structured co-operation, transfer of know-how, exchange and mobility at all levels of higher education.
- The support of measures which will help to enhance the world-wide appeal of Europe as an educational destination.

3.23.7 Budget

493.69 Million euro for Actions 1 and 3 (from the EU's Education Budget)

About 460 Million euro for Action 2 (from different external relations instruments)

3.23.8 More information

Education, Audiovisual and Culture executive Agency

http://eacea.ec.europa.eu/erasmus_mundus/programme/about_erasmus_mundus_en.php

European Commission – DG Education and Training – Erasmus Mundus programme

http://ec.europa.eu/education/external-relation-programmes/doc72_en.htm

3.23.9 Corresponding to following needs

- ✓ Measures against brain drain / brain waste **
- ✓ Support of mobility of WBC ICT Researchers **
- ✓ Support of research career development *

3.24 UNESCO

3.24.1 Introduction

Science is an instrument for stimulating dialogue; it creates bonds of cooperation across borders and between peoples. UNESCO's strategy is to promote scientific cooperation for peaceful purposes.

3.24.2 Duration

There is no official time-limit given to the support of UNESCO.

3.24.3 Objectives

Based on several policy initiatives and statistical analyses of the RTD situation in WBC, UNESCO set strategic objectives to support science in SEE through:

- ✓ Electronic connectivity between academic SEE institutions
- ✓ Research infrastructures
- ✓ Human potential in research
- ✓ Thematic regional networks of research centres and laboratories

Activities include training workshops, conferences, exchange visits, mobility grants, investment in RTD infrastructure, etc.

The overall aim is to reconstruct scientific cooperation in SEE, increase RTD capacity and support the involvement into pan-European scientific cooperation programmes.

3.24.4 Eligibility of WBC

UNESCO supports activities in all WBC.

3.24.5 Conditions for funding

UNESCO's actions are based on not-refundable grants, which cover all expenses necessary to implement the activities above.

3.24.6 Fields/Areas of funding

No thematic restrictions are applied.

3.24.7 Budget

Concrete financial information is not known.

3.24.8 More information

UNESCO: Natural Sciences

<http://www.unesco.org/science>

UNESCO Office Venice

<http://portal.unesco.org/en/ev.php->

[URL_ID=1314&URL_DO=DO_TOPIC&URL_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=1314&URL_DO=DO_TOPIC&URL_SECTION=201.html)

3.24.9 Corresponding to following needs

- ✓ Upgrade of research infrastructure *****
- ✓ Upgrade of information and e-infrastructure and internet connections *****
- ✓ Enhancement of regional RTD cooperation *****
- ✓ Support of mobility of WBC ICT researchers *
- ✓ Support of transformation of universities from teaching to research institutions *****

3.25 Bilateral S&T Cooperation Programmes

3.25.1 Introduction

In order to contribute to stability in the region and to the integration of the Western Balkan countries into the European Research Area, international development promotion programmes, particularly over the past five years, have begun to re-launch the initiation and development of multilateral, bilateral and regional scientific and technological cooperation in the WBC. Important roles have been played by both international organisations and bilateral agreements with Western countries.

3.25.2 Duration

Bilateral agreements are usually concluded for a specific duration. Implementation through calls for proposals depends on the specific agreement (some agreements are not implemented at all; some have irregular or regular calls, etc.).

3.25.3 Objectives

Bilateral agreements aim to increase cooperation between two specific countries concluding the agreement.

3.25.4 Eligibility of WBC

All WBC are involved in numerous bilateral and multilateral projects, for an overview see Tab. 1 and Tab. 2:

✓ Albania

Albania negotiated bilateral protocols with the Former Yugoslav Republic of Macedonia and Slovenia in 2006, complementing the already established bilateral collaboration with Croatia, Germany, Greece, Italy, Montenegro, Poland and Romania.

✓ Bosnia and Herzegovina

The bilateral cooperation with Slovenia and Montenegro was launched in 2009. Bosnia and Herzegovina also negotiated protocols with Germany.

✓ Croatia

In Croatia the bilateral collaborations was established with Austria, France, Germany, Greece, Hungary, Italy, Slovenia, Turkey, and with WBC in particular with Albania, FYR of Macedonia , Montenegro and Serbia.

✓ FYR of Macedonia

In the Former Yugoslav Republic of Macedonia, project cooperation was established for the first time with Albania, Bulgaria, China, Croatia, Cyprus, France, Germany, Japan, the Russian Federation, Slovenia, Serbia, Switzerland, Turkey and UK. Cooperation with Austria, Bosnia and Herzegovina, Israel, Montenegro, Spain and the United States will also be initiated.

✓ Montenegro

Montenegro signed S&T bilateral agreements with Austria, Albania, Bosnia and Herzegovina, Croatia and Slovenia. In the near future, cooperation with Belgium, Bulgaria, France, Germany, Hungary, Italy, Poland, Romania, Switzerland, will also be initiated. The agreement with Serbia has been adopted by both governments. It is expected that the signing date will be defined soon. Also, negotiations with Russian Federation are well underway.

✓ Serbia

Serbia has ongoing active bilateral programmes with Austria, China, Cyprus, Croatia, France, Germany, Israel, Italy, the Former Yugoslav Republic of Macedonia, Norway, Hungary, the Russian Federation, Greece, Slovenia, Slovakia and Turkey. New bilateral agreements have been concluded with the Centre National de la Recherche Scientifique (CNRS) of France and the German Academic Exchange Service (DAAD) of Germany. Further bilateral agreements with Belarus, Bulgaria, Japan, Romania, Ukraine and the United States are in preparation.

✓ Kosovo under UN Security Council Resolution 1244

Bilateral agreements are not yet concluded. With Austrian assistance a 3 year reform project¹⁹ was started.

¹⁹ See <http://www.aei-austria-kosovo.com/>

Tab. 1 provides a summary of bilateral agreements between the WBC and countries from the European Union (EU27) and WBC²⁰. It also underlines the importance of International dimension in Tab. 2 which provides a summary of bilateral agreement between the WBC and the rest of the world.

	Albania	Bosnia and Herzegovina	Croatia	FYR Macedonia	Montenegro	Serbia
Albania	-	(p)	X	X	X	
Austria	(p)		X	X	X	X
Belgium			(p)		(p)	
Bosnia and Herzegovina	(p)	-	(p)	(p)	X	(p)
Bulgaria		(p)	(p)	X	(p)	(p)
Croatia	X	(p)	-	X	X	X
Czech Rep;						(p)
Cyprus				X		X
France			X	X	X	X
Germany	X	X	X	X	(p)	X
Greece	X	(p)	X			X
Hungary		(p)	X		(p)	X
Italy	X	(p)	X		(p)	X
FYR Macedonia	X	(p)	X	-	(p)	X
Montenegro	X	X	X	(p)	-	(p)
Poland	X				(p)	
Portugal						(p)
Romania	X	(p)	(p)	(p)	(p)	(p)
Serbia		(p)	X	X	(p)	-
Slovak Rep.						X
Slovenia	X	X	X	X	X	X
Spain				(p)		(p)
UK				X		

(p) agreement in preparation X agreement in force

Tab. 1: Bilateral S&T Agreements between WBC and EU Member States and other Western Balkan countries

20 Based on SEE-ERA.NET White Paper on Gaps, Overlaps, and Opportunities in View of the Extension of Bilateral RTD Programmes and Initiatives towards Multilateral Approaches. Published in Transition Studies Review, Volume 14, Nr. 2, 2007. See D11 Needs offers Matrix, 2008 and WBC INCO-NET project web portal news 2008, update WINS-ICT 2009.

	Albania	Bosnia and Herzegovina	Croatia	FYR Macedonia	Montenegro	Serbia
Argentina						
Belarus						(p)
China				X		X
Cuba						
India						
Israel				X		X
Japan				X		(p)
Norway						X
Russian Fed.				X	(p)	X
Switzerland				X	(p)	X
Turkey	X	X	X	X		X
Ukraine						(p)
US						(p)

(p) agreement in preparation X agreement in force

Tab. 2: Bilateral S&T Agreements between WBC and international countries

3.25.5 Conditions for funding

Conditions of funding depend on the specific bilateral agreements. Usually only funding for mobility is provided.

3.25.6 Fields/Areas of funding

Fields / Areas of funding depend on the specific bilateral agreements. Some define priority areas, others are thematically open. Usually SME participation is not considered and the funding is limited.

3.25.7 Budget

Budget depends on the specific bilateral agreements. Usually amounts are rather small.

3.25.8 More information

Information on bilateral agreements is usually provided either on the website of your local Ministry for Science or the Ministry for Foreign Affairs.

3.25.9 Corresponding to following needs

- ✓ Upgrading of research infrastructure ***
- ✓ Identification and concentration on priority research areas ***
- ✓ Support of mobility of WBC ICT researchers ****

3.26 National Unilateral S&T Cooperation Programmes

3.26.1 Introduction

National, unilateral S&T programmes are designed to foster cooperation between the initiating country and the Western Balkan. Different aspects of cooperation are supported, like project preparation, common RTD projects, organisation of conferences and seminars, exchange of staff etc.

Following national funding programmes are discussed below:

Switzerland - SCOPES: Research, institutional partnerships, participation in international scientific conferences in Switzerland as well as preliminary and valorisation grants are available for scientists coming from WBC under the SCOPES programme (Scientific Cooperation between Eastern Europe and Switzerland).

Switzerland – RRPP: The Regional Research Promotion Programme (RRPP) provides funding for research projects in the social sciences conducted by researchers from partner institutions in the Western Balkans, thereby fostering social, economic and institutional transition reforms in both individual countries and the region. ICT is not directly in the focus, as the umbrella topic is defined as “Political, Social and Economic Change in the Western Balkans”.

Germany: the programme “International Cooperation in Education and Research - Central, Eastern and South Eastern European Region” provides funds for preparatory projects in the areas of applied research and development and in education, with the aim of preparing submissions under current BMBF funding programmes. In addition, the programme supports the preparation of projects within the thematic priority areas of the EU's Seventh Research Framework Programme and other EU programmes that are relevant to research. It also supports the development of joint research bases that build on existing collaborations.

Norway: the Norwegian cooperation programme with WBC (2006-2009) aims to initiate research collaboration, develop and fund collaboration between universities, university colleges and research institutions in the Western Balkans and corresponding Norwegian institutions. At the moment, there are no available funding opportunities for new projects. New possibilities for receiving financial support through the programme will be announced in due time. As the thematic focus used to be on Good governance and democracy building, and Environmental protection, management of natural resources, and marine issues, it is not discussed further at the moment in respect to the reports focus on ICT.

3.26.2 *Duration*

The duration of projects funded by national, unilateral programmes vary according to donor country strategy.

Switzerland - SCOPES: A call for SCOPES 2009-2011 has been launched in December 2008; the first projects will be able to start next autumn, a second call for proposals is planned for 2010.

Switzerland – RRPP: The RRPP implementation phase lasts from July 2008 to June 2011. The programme started in Bosnia & Herzegovina and FYR of Macedonia, while all countries of the region should be included by 2011. The consolidation phase will start in 2011. At this point, the ownership of the programme should be transferred to the region.

Germany: currently no call is open

3.26.3 *Objectives*

Following national funding programmes exist:

Switzerland – SCOPES: The SCOPES programme boosts scientific co-operation between research groups in Switzerland and Eastern Europe as well as supporting institutional partnerships with scientific establishments in the target regions.

Switzerland – RRPP: With a focus on the younger generation of researchers, it provides research grants for regional and national transition-relevant projects. The programme offers methodological and thematic colloquia and mentoring, and facilitates regional communication and cooperation. RRPP focuses on 1. provision of research grants for projects that deal with issues related to the transition process in individual countries and in the region as a whole; 2. provision of methodological colloquia and thematic trainings; 3. enabling and strengthening regional interaction and cooperation.

Germany: By giving the BMBF's funding programmes an international outlook and linking them to the corresponding funding programmes in the partner countries, and by focussing on key areas of mutual interest - particularly in subject areas that are addressed in the Federal Government's High-Tech Strategy - bilateral cooperation at a European level is to be expanded and added value is to be generated at both a bilateral and a European level.

3.26.4 *Eligibility of WBC*

Programmes are targeted towards RTD collaboration with all WBCs.

Conditions for funding (type, procedures)

Switzerland - SCOPES: New for partner countries is the division into two categories: a first group (**West Balkan States**, South Caucasus and Central Asia as well as Moldavia and the Ukraine) and a second group (Eastern European members of the EU as well as **Croatia** and Russia). Bilateral projects are only possible with partners in the first group. Tri- and multilateral partnerships can be launched with countries from both categories, whereby at least half of the Eastern partners must be from the first category.

Switzerland – RRPP: Social scientists from Western Balkan countries are the main target group of RRPP, the RRPP supports the development of research in the social sciences in the

Western Balkan countries Albania, Bosnia and Herzegovina, Kosovo (UN Resolution), FYR of Macedonia, Montenegro and Serbia.

Germany: Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Croatia, Montenegro, Kosovo (UN Resolution) and Serbia are eligible (as well as Poland, Estonia, Latvia, Lithuania, Hungary, the Czech Republic, Romania, Slovakia, Slovenia and Bulgaria)

3.26.5 Conditions for funding

Switzerland - SCOPES: The following instruments are included: Joint Research Projects, Institutional Partnerships, Conference Grants, Preliminary and Valorisation Grants. There are no specific thematic requirements. However, the projects must, besides having scientific quality, show potential for application and development possibilities (capacity building) for the Eastern European partner(s).

Switzerland – RRPP: RRPP launched a call for proposals and also supports specific centers in the region.

Germany: The BMBF Programme "International Cooperation in Education and Research - Central, Eastern and South Eastern European Region" has the aim of supporting the preparation of projects in applied research and development and in education under the current funding programmes of the BMBF. These BMBF **Specialist Programmes** include in particular: **Electronics and electronics systems, Information society, Microsystems technology, Nanotechnology, Optical technologies, Production research, Materials research, Security research, Framework Programme - Research for Sustainability "FoNa", The Earth System, Socio-ecological research, Health research, Biomedical Research, Biotechnology, Economic sciences for sustainability**

EU Research Programmes: Support is also given to the preparation of projects in the field of applied research related to the following thematic priorities of the "Cooperation" programme of the EU's Seventh Research Framework Programme and to other EU programmes which are relevant to research (including Information and Communication Technologies)

New Projects: Funding will be provided for measures for the initiation and planning of projects whose funding is to be applied for under a BMBF specialist programme or an EU programme. These measures include preparatory missions, meetings of experts, thematic workshops, short-term feasibility studies (of up to 4 months) and pilot studies (of up to 12 months).

Integration in existing projects: Funding can be given to measures such as preparatory missions, meetings of experts and workshops for the integration of partners from CEE/SEE countries in BMBF-funded projects that are already running, provided that this leads to a significant increase in the value of these projects.

Joint Research Bases: By establishing "Joint Research Bases", closer links are to be forged between the staff, organization, and financing of university and research institutions in the partner countries and German university and research institutions as well as companies that are active in research, as a rule on the basis of existing cooperation schemes. The project

partners are to establish an organizational structure in order to jointly develop their research potential and thus introduce more dynamic product and process innovations in the interest of the countries involved. Innovative small and medium-sized enterprises are to be involved in the joint research bases.

Funding will be provided to measures for the development of concepts (including organizational model, research planning, acquisition of third party funding) for the establishment of joint research bases. These measures include preparatory missions, meetings of experts, workshops with German and foreign partners and other preparatory activities.

3.26.6 Fields/ Areas for funding

Switzerland - SCOPES: SCOPES is open for all scientific disciplines

Switzerland – RRPP: RRPP is open for Social Sciences, topics as regards ICT have to be approached from a social scientific view only and suit the umbrella topic.

Germany: depend on the sub-programme see above, among others: New technologies, Preparatory grants for projects in the FP7 Specific Programme ICT (see chapter 3.2), etc.

3.26.7 Budget

Switzerland - SCOPES: A total of CHF 16 million are available for the programme.

As before, research costs will only be covered for the Eastern European side. However, the co-ordination funding on the Swiss side will be increased, and the amounts per project depend upon the number of partners.

Switzerland – RRPP: Funding up to CHF 25'000 may be granted for national projects and up to CHF 100'000 for regional projects per year, and shall contribute to cover costs for salaries, equipment and field work, in the field of Social Sciences.

Germany: The grant may amount to a maximum of €50,000 for the preparation of particularly complex projects and joint research bases.

3.26.8 More information

Switzerland - SCOPES:

Swiss National Science Foundation

<http://www.snf.ch/E/international/abroad/scopes/Pages/default.aspx>

Switzerland – RRPP:

<http://www.rrpp-westernbalkans.net>

Germany:

International Bureau of the Federal Ministry of Education and Research- Germany

<http://www.internationales-buero.de/de/2296.php>

Norway:

The Norwegian Cooperation Program on Research and Higher Education with the countries on the Western Balkans (2006-2009)

<http://www.forskningsradet.no/westbalkan>

<http://www.forskningsradet.no/servlet/Satellite?c=Page&cid=1228296457225&pagename=westbalkan%2FHovedsidemal>

3.26.9 Correspondence to needs

- ✓ Enhancement of regional RTD cooperation ****
- ✓ Identification and concentration on priority research areas ***
- ✓ Support of mobility of WBC ICT Researchers **
- ✓ Specific support to basic research **

3.27 National Unilateral Programmes for Innovation

3.27.1 Introduction

There has been only one case identified of national unilateral programme for innovation: the International Consortia - Strategic RDI cooperation with South-Eastern and Eastern Europe within the scope of COIN – Cooperation & Innovation – which is a joint initiative launched by the **Austrian** Federal Ministry for Transport, Innovation and Technology (bmvit) and the Federal Ministry of Economy, Family and Youth (BMWFI). It builds upon the previous programme CIR-CE.

COIN contributes towards fostering Austria's innovation performance by the better and broader transposition of knowledge into innovation. The "Cooperation and Network" line encourages technology transfer within entrepreneurial cooperation schemes, thus raising the level of innovation within businesses and strengthening their cooperation capacities. It focuses on output-oriented cooperation projects to develop and improve innovative products and processes. International cooperation with Eastern and South Eastern Europe is a focus only in SOME of the calls (it was in the 2nd call but it is not in the 3rd call).

3.27.2 Duration

A new call is open in October 2009, but international cooperation is not targeted. Further calls are to be expected.

3.27.3 Objectives

COIN aims to enhance the competitiveness and innovativeness of Austrian companies and invites intermediaries, research institutes and companies to apply in two different funding lines: "Aufbau" (no international activities) and "Kooperation und Netzwerke" (with international activities targeted in some calls).

3.27.4 Eligibility of WBC

Programmes are targeted towards innovation collaboration with all WBCs (and beyond).

3.27.5 Conditions for funding

Are set in the specific call. Targeting international cooperation participation (and coordination) by Austrian institutions is compulsory. Partners from one or more Eastern or South Eastern European institutions will be funded.

3.27.6 Areas/Fields of funding

The calls are thematically open, projects with ICT focus have already been funded.

3.27.7 Budget

Depending on the call – several million euro in federal funds (Federal Ministry of Economy, Family and Youth and Federal Ministry for Transport, Innovation and Technology) are available.

3.27.8 More information

Coin Programme

<http://www.ffg.at/content.php?cid=769>

Funding line Cooperation and Networks

<http://www.ffg.at/content.php?cid=968>

International Projects funded in the second call

<http://www.ffg.at/content.php?cid=969>

3.27.9 Correspondence to needs

- ✓ Enhancement of regional RTD cooperation **
- ✓ Support of mobility of WBC ICT Researchers **
- ✓ Specific support to applied research *****
- ✓ Strengthen connection between basic and applied research *****
- ✓ Enhancement of RTD capacities of industry and SMEs ****

3.28 World Bank

3.28.1 Introduction

The World Bank funds several projects in the region on economic and institutional regime, education and skills, and Information and Communication Infrastructure, and the innovation system.

3.28.2 Duration

An end involvement of the World Bank in the region is not specified.

3.28.3 Objectives

The Worldbank provides policy analysis, research and publications, learning events, etc.

The World Bank has been screening the situation of RTD in WBCs to take appropriate steps.

The study published defined several key challenges:

- Little private sector participation in innovation
- Weak innovation/technology absorption
- Low political priority to STI, limited funding
- Neglect of STI systems and extensive brain drain
- Marginal position of the region vis-à-vis EU

Based on these factors, support strategies are defined:

- Support for RTD infrastructure
- Capacity building for FP participation
- STI policy articulation and priority setting
- Establishing quality indicators and benchmarking STI capacity
- Improving quality and relevance of tertiary education (UG and research degrees)
- Fostering good governance and institution building in STI
- Partnering with regional networks

3.28.4 Eligibility of WBC

A pilot project in Croatia for S&T support was launched in 2008. Also, activities in FYR of Macedonia were supported. Further projects and studies with other WBCs are planned.

3.28.5 Conditions for funding

The World Bank sets initiatives according to its S&T strategies for WBCs.

3.28.6 Fields/Areas of funding

No thematic restrictions are applied.

3.28.7 Budget

The Croatian S&T project allocates 40 million euro to support of RTD infrastructure, support to applied research, etc.

3.28.8 More information

World Bank: World Bank Institute

<http://web.worldbank.org/WBSITE/EXTERNAL/WBI/0,,pagePK:208996~theSitePK:213799,00.html>

3.28.9 Corresponding to following needs

- ✓ Support for regional infrastructure ***
- ✓ Enhancement of regional RTD cooperation ****
- ✓ Support of transformation of universities from teaching to research institutions **

3.29 NATO Science for Peace and Security Programme**3.29.1 Introduction**

The programme aims to link science and society through projects in security, environmental sustainability and other defined priorities of its Partner nations. The SPS Programme enables NATO to demonstrate its commitment to practical, visible projects with tangible output and to contribute to security, stability and solidarity among nations, by applying the best technical expertise to problem solving.

3.29.2 Duration

Ongoing programme

3.29.3 Objectives**Grant mechanisms:****a) Collaborative grants in priority research areas**

Advanced Research Workshops (SPS ARWs): grants to organise expert workshops where an intense but informal exchange of views at the frontiers of a subject aims at identifying directions for future action.

Advanced Study Institutes (SPS ASIs): grants to organise high level tutorial courses to convey the latest developments in a subject to an advanced-level audience

Advanced Training Course (SPS ATC): designed to enable specialists in NATO countries to share their expertise with trainees from Partner and Mediterranean Dialogue countries

Collaborative Linkage Grants (SPS CLGs): to pool ideas and resources on research projects, and create specialist networks

Science for Peace projects (SPS SFPs): grants to collaborate on multi-year applied R&D projects in Partner or Mediterranean Dialogue countries

Reintegration Grants (SPS RIGs): to allow young scientists from Partner countries working in NATO countries abroad to return and reintegrate into the research communities of their home countries

b) **Computer Networking and Electronic Communication** support for Partner Countries

Advanced Networking Workshops (SPS ANWs): grants to enable workshops to be organized in Partner countries to harmonize network policy at a national and international level, to enable the training of qualified network managers and to convene expert meetings to enhance the use of electronic communication.

Networking Infrastructure Grants (SPS NIGs): grants to enable research institutions in Partner countries to improve their telecommunication facilities and to enhance the use of such facilities

3.29.4 Eligibility of WBC

All WBCs are so-called “NATO Partner Countries“, which are eligible to participate in the NATO SPS activities but are not NATO Members.

3.29.5 Conditions of funding

Participation rule: 1 researcher from NATO country, 1 from eligible partner country

Projects can be submitted always throughout the year. Three deadlines are set each year to meet the three review sessions of the scientific advisory panels.

3.29.6 Fields/Areas of funding

With the exception of Computer Networking Support, all other activities funded under the Science for Peace and Security (SPS) Programme must address **Key Priorities** that fall under two broad categories:

- 1) Defence against Terrorism: rapid detection of chemical, biological, radiological nuclear (CBRN) agents, physical protection against CBRN, decontamination of CBRN agents, etc.
- 2) Scientific Collaboration to counter other threats to security:
 - Environmental security with implications for economic, cultural and political instability
 - Water resources management
 - Food security
 - **Information security**
 - Human and social dynamics
 - Conducting regional studies including cross-border activities, etc.

Technology transfer to address partner country in priorities: for example in FYR of Macedonia these include Information technology (as well as food security, human and societal dynamics), in Montenegro, Information and communication security is identified together with environmental security, human and societal dynamics, food security.

Computer Networking Grants support a more generalized need in Partner Countries than is represented by the Key Priorities.

The objective of the **Computer Networking Support** is to advance electronic communications in Partner countries. Grants are provided to enable workshops to be organized in Partner countries to harmonize network policy at a national and international level, to enable the training of qualified network managers and to convene expert meetings to enhance the use of electronic communication. The **Networking Infrastructure Grants** provide assistance to Partner country research institutions in purchasing equipment that will improve the level and the quality of telecommunication facilities.

3.29.7 Budget

The amount of funding of many of the funding types is decided on a case-to-case basis. In case of the reintegration grants, a yearly salary between 20.000 – and 25.000,- euro is foreseen, for a period of three years. SFP projects range between 200.000 – 300.000,- euro funding.

3.29.8 More information

NATO: Science of Peace and Security- General Information on the Programme:

<http://www.nato.int/science/>

NATO: Science of Peace and Security: Grant mechanisms:

http://www.nato.int/science/nato_funded_activities/grant_mechanisms.htm

3.29.9 Corresponding to the following needs

- Upgrade of information and e-infrastructure and internet connections *****
- Enhancement of regional RTD cooperation **
- Identification and concentration on priority research areas ***
- Support of mobility of WBC ICT Researchers *
- Specific support to basic research *****

4 CONCLUSIONS

The present report has focused on the correspondence between specific ICT RTD needs of the WBCs and international funding programmes allowing the participation of WBC themselves and set these two components into a matrix (see page chapter 1.5 on page) showing the correspondence level as well as the availability of budget.

The result of such an exercise is the development of a **handbook** providing practical and precise information to universities and research institutes, ICT industry stakeholders, WBC and EU policy makers, and to other supporting organisations for identifying the best research funding instruments, offering ad-hoc information on the RTD founding sources, and for developing strategies and initiatives intended to improve the EU-WBC research cooperation by properly addressing the needs and hindering factors.

The **objective** of the exercise was **to understand** to which extent are the **Western Balkans ICT RTD needs covered by existing funding programmes**, where the main gaps lay and which are the areas for improvements after analysis of the programmes objectives, budget and funding conditions.

Hereinafter a brief result summary per WB ICT RTD need perceived is presented comprising also some recommendations for better addressing that needs in future and thus support the ICT WB research and business community.

Renewal and upgrading of research infrastructures

This is one of the most virulent needs of almost all WBCs, specifically in Albania and Bosnia and Herzegovina. As international donor support focused more on the upgrading of infrastructure in general, renewal of RTD facilities, industry and university laboratories were mostly neglected.

The future will show how much funds of **FP7/Research Potential** (in particular for WBC FP7-2010-5 (see chapter 3.5) and RTD infrastructure can be used to improve the situation in WBCs. Also, the **IPA** programme is responding to the need of upgrading RTD infrastructure in the necessary extent. The **i2i** programme's objectives refer to this need, enough capital is also available but as financing is carried out through loans and credits it is difficult for mainly the smaller countries in the Western Balkans to guarantee payback to use **i2i support**. Promising financial support comes from **World Bank** initiatives, both of which focus their funding also on the upgrading of RTD infrastructure.

In the WBC, dialogue on **innovation infrastructures** such as technology parks, incubators and Enterprise Europe Network (EEN) **must be developed** with a view to respective scenario development for future action.

Upgrading of information- and e-infrastructure and internet connection

Despite the strong need to catch up with ICT developments, to get connected to virtual libraries and e-journals and to offer appropriate information sources for the national RTD community; the programmes do not reflect this in their objectives strong enough. The **NATO SPS** offers financial support for computer networking and electronic communication. Also, **UNESCO** aims to improve electronic connectivity amongst SEE research institutions. Unfortunately, the intended GEANT connection within the SEEREN2 project did not work out properly in all WBCs, since some of the countries were not able to financially carry the continuation of the connection. Here, IPA could provide funds, which is the hope of many policy makers in the region. **Linking to the European information network GÉANT**, including access to scientific electronic journals, electronic databases, and libraries, **should be a top priority**.

Enhancement of regional RTD cooperation

Scientific collaboration amongst scientists as well as coordination of policy-makers from different WBCs for the sake of strengthening the international position of WBCs creates bonds and can contribute to long-lasting stability in the region. In many fields, the regional aspect is also an important factor (such as transport networks, environmental hazards, etc.). This has been recognised and is reflected in some major funding programmes, which require the involvement of actors from different WBCs: the **FP7 SP Capacities** - International Cooperation programme (which supports SEE-ERA.NET, SEE-ERA.NET PLUS and WBC-INCO.NET), the **SEE-ERA.NET PLUS** programme, and the European Territorial Cooperation Objective (INTERREG IV) (transnational programmes) have a regional focus. As these **funding programmes offer strong financial support, regional cooperation will be fostered even more**. Coordination by the Regional Cooperation Council (RCC) and the Steering Platform on Research for the Western Balkan countries will also help to attract and coordinate further support (e.g. through IPA or EU Member States). Projects such as WBC-INCO.NET support the regional cooperation on several levels and also managed to set regional research priorities. In the field of ICT (**FP7 SP Cooperation**) projects such as WINS-ICT and ICT-WEB-PROMS (as well as previous projects such as SCORE, IS2WEB, SEE-INNOVATION, etc.) have to be highlighted. SEEREN, SEE-GRID and their follow-up projects play an important role. Nevertheless, regional cooperation also requires initiative from the countries in the Western Balkans. Willingness to cooperate cannot only be pushed from outside but must develop also amongst the WBCs themselves in order to have a strong voice in the international RTD arena. Support for IPA towards the development of a regional research strategy under the umbrella of the Regional Cooperation Council could be an important tool to further enhance regional cooperation.

Identification and concentration on priority research areas

The identification of strengths in certain RTD areas is necessary for WBCs with respect to the limited national funds and resources available. The WBCs have recognized this fact and have

prioritized certain areas (ICT, Life Sciences, Sustainable Development, Water Resources Management, etc.). As the **FP7 SP Cooperation** programme and all ten thematic areas are open for participation of WBCs, it is a very good opportunity to make use of this important funding programme and engage in projects in the key areas of interest. Despite generally low participation in FP6, WBCs should use the opportunity now and focus on their strengths in the respective areas. Regional research priorities have also been identified in WBC-INCO.NET project which are now called for in the **SEE-ERA.NET PLUS** call. **Other programmes (COST, EUREKA,) also offer the possibility to engage in specific RTD areas**, but funding for RTD activities themselves is not given. For partner countries of the NATO SPS, RTD activities in key areas receive strong financial support. In bilateral S&T agreements, signatory countries collaborate in RTD areas of mutual interest, but budgets are usually small and limited to mobility rather than to actual RTD activities. Building on the tradition of **bilateral programmes, new instruments should be developed (twinning between MS and WBC with IPA and SF)** and implemented in such a way as **to meet the systemic needs** of the integration process.

Measures against brain drain/brain waste

General improvement of the economic and political situation, positive future prospects and stronger investment in RTD in general is required in order to decrease the numbers of researchers to leave their countries or seek fortune in other professions. Therefore, all funding programmes can contribute to ameliorate the situation but cannot prevent brain drain and brain waste directly. The **FP7 SP People** Programme should be well exploited to receive fellows as host countries, grants can be provided for returning researchers from diaspora as incoming researchers. Also grants provided through the FP7 SP Capacities **REGPOT** include the possibility to hire returning researchers.

Support of mobility of WB ICT researchers

After years of international isolation and disruption of international scientific contacts, WBCs' researchers are in strong need for exchange and transfer of knowledge through increased international mobility. Usually, programmes covered in this report provide financing for researchers' travels to meetings and conferences. Also, grants for short-term and in some cases also long-term stays (e.g. FP7 People, JRC, COST) are given. Still, the obtainment of visa can remain an obstacle for researchers from WBC to travel to EU countries, but progress for visa-free travel is constantly made. **The FP7 SP People should pay more attention to the needs of the region.** One option is to introduce sur-place fellowships within the Marie Curie scheme, linking WB scientists to leading S&T institutions in the EU Member States. In addition, there is a strong need for **special training elements**, in particular with reference to science management, which could be integrated into the existing mobility schemes of the People Programme. In particular, industrial PhDs from the Western Balkan countries should be invited to join the fellowship schemes of the People Programme (such as ITN and IRSES) and ERASMUS MUNDUS.

Support of transformation of universities from teaching to research institutions

Many universities have not succeeded in making the transition to research institutions and remain pure “colleges” of teaching. With the Bologna Process, this transition is required in order to harmonise with the European education area. **TEMPUS** funds are of respective size to support the modernization and restructuring of universities in WBCs. **UNESCO** and **World Bank** and Life Long Learning initiatives also recognized the need for support to implement Bologna rules.

Specific support to basic research

Per definition, basic research is the foreground for RTD development and source of new findings. Therefore, support in this area is of crucial importance for WBCs to strengthen their RTD capacity and performance. **FP7** (mainly SP Ideas and SP People programme) **offers strong funding for basic research**, but as these programmes are highly competitive, WBCs have difficulties to get involved in these international projects. The **SP Capacities REGPOT** offers the possibility to strengthen the research base of excellent research institutions.

Another possibility is applying for projects under the **NATO SPS**, which provides extensive funding for basic research activities in specific areas of mutual interest. Although **COST** is specifically designed for basic research on the European level, no funding is available for the RTD activity itself. **SEE-ERA.NET PLUS** funds basic research in two specific topics of interest (including ICT) with one specific call.

Concluding, **basic research in WBC needs stronger support from international programmes, helping to step on their own feet in order to become competitive**, be able to get a piece of the big FP7 cake and to be internationally more visible and connected. Also here, **IPA** could play a path-preparing role, as have **PHARE** funds done in Poland and other eastern European Member States.

Specific support to applied research

Applied research drives economies and contributes to the welfare of countries. **FP7** (SP Cooperation mainly, but also to some minor extent SP People and Capacities) cover the field of applied research (mainly in a top down approach focussing on defined challenges). Applied research remains still weak in WBCs. With the new **CIP** programme funds are offered to strengthen applied research and boost RTD output of WBCs. Time will show how much WBC SMEs and industry will engage in this programme. Also, the **EUREKA** programme is open for WBC participation (**EUROSTARS** currently only for Croatia), but financial support depends on national funds, limiting the positive effects of the programme. The **COIN** programme by the Austrian Federal Ministry of Economy, Family and Youth offers a sound financial basis for innovation projects, which foster applied research (provided there are open calls which are only irregular). National priority setting and support to strengthen applied research and the business sector absorption capacity are needed.

Strengthen connection between basic and applied research

Disrupted ties between the various components of the RTD system impede the development and progress of the whole system. Unfortunately, **international programmes do not operate along this need yet**. The **FP7 People IAPP** (Industry Academia Partnership Pathway) should be better disseminated and used in the WBC. **FP7 SP Capacities Regions of Knowledge** programme funds specific clusters for research cooperation. **COIN** also supports cooperation between research centres, intermediaries and companies. Some other programmes can be exploited to this end even if the need is not explicitly covered.

Enhancement of RTD capacity of industry and SMEs

The innovative capacity of the business and industry sector in many WBCs is rather weak, only Croatia is advanced in terms of scientific output of the industry sector. Often, policy makers in WBCs lack the understanding of the necessity of a strong innovation system. Also, international programmes do not respond to this need to necessary extent. Although in the **CIP programme** strong financial support is offered and it is recommendable for WBCs' business sector to thoroughly engage in the programme, the acceptance is not yet very high. Also in FP7 participation of SMEs is encouraged, although the possibility is not yet fully used in the region. **FP7 SP Capacities** runs a specific programme **Research for SMEs** allowing SMEs to contract research. Again, the **COIN** programme and **EUREKA/Eurostars** are the only one really focusing on this need with respectable funds. The **integration of innovative SMEs into bilateral collaborative research schemes** should be considered.

Implementation of EU standards and harmonisation

Implementation of EU standards ranges from adapting the *aquis communautaire* to using project management and auditing standards in EU projects. Therefore, all international EU programmes can support this need. **IPA** and **JRC** specifically support the implementation of EU standards for Candidate Countries and Potential Candidate Countries.

Support of research career development

The research profession has suffered image loss and many young researchers either leave the country or stop pursuing the research profession in search for better future working prospects. Specific programmes to raise the appreciation of this profession and specially support young researchers are of national concern mostly. Probably this is the reason, why international programmes are rare to cover this need, mainly the financially strong **FP7 SP People and SP Ideas** programme support the human resource aspect of RTD.

Support to institution building

A strong institutional basis, capable of reacting to and absorbing international trends is necessary for the RTD system in WBCs. Here again IPA is challenged to come up with strong strategies and practical support for institutional set up in WBCs. The **FP7 SP Capacities International Cooperation** programme supports coordination in S&T policy between EU and

WBCs and hence contributes to institution building. Also through **CIP** and **European Territorial Cooperation** institutions in the WBC are enabled to support innovation activities.

In general, international funding programmes cover all needs. Major **obstacles** remain that access to the funds is often difficult especially for those WBCs, which are smaller, have lower research capacity, inappropriate and/or devastated RTD infrastructure and cope with international isolation. Hence, participation in competitive programmes, such as FP7, which offer the biggest amount of financial support, is still impeded and the opening of all thematic areas for WBC participation is enough. Still, the visa problem and bureaucratic hurdles may prevent WBC researchers to take part in some activities, e.g. **the FP7 Marie Curie actions** of the People programme.

Concerning **IPA**, expectations in respect to support for RTD in WBC have not been fulfilled yet. More engagement and support from this side is still required.

Efforts have to be undertaken **from national as well as international side** in order to help the RTD system in WBCs to step on its feet and have the chance to develop and become competitive for the prosperity of the region, for the stability and for the integration into the European RTD family.

ANNEX 1: LIST OF ABBREVIATIONS

AC	Accession Countries
AMRES	Academic Network of Serbia
BERD	Business expenditure in R&D
BIHARNET	Academic and Research Network of Bosnia and Herzegovina.
BMWFI	Federal Ministry of Economy, Family and Youth
bmvit	Federal Ministry for Transport, Innovation and Technology
bn	Billion
CARDS	Community Assistance for Reconstruction, Development and Stabilisation Programme
CARNeT	Croatian Academic and Research Project
CBC	Cross Border Cooperation
CC	Candidate Countries
CF	Cohesion Funds
CHF	Swiss Francs
CIP	Competitiveness and Innovation Framework Programme
CIR-CE	Co-operation in Innovation and Research with Central and Eastern Europe (now integrated to COIN), Austrian funding programme
CIS	Centre of Information System (Montenegro)
CNRS	Centre National de la Recherche Scientifique (France)
COBIB.CG	Online Union Bibliographic/Catalogue Database (Montenegro)
COBISS	Co-operative Online Bibliographic System & Services
COIN	Cooperation and Innovation (Austrian funding programme)
COST	European Co-operation in the Field of Scientific and Technical Research
CP	Collaborative Projects (project type in FP7)
CROSBİ	Croatian Scientific References
CSA	Coordination and Support Actions (project type in FP7)
DAAD	German Academic Exchange Service
DCI	Instrument to finance EU's development cooperation activities
DCECI	Development Cooperation and Economic Cooperation Instrument
DG	Directorate-General (of the European Commission)
DG EAC	Directorate-General for Education and Culture
DG RTD	Directorate-General for Research and Technological Development
DIS	Dedicated Implementation Structure
EACEA	Education Audiovisual and Culture Executive Agency
EAFG	European Agricultural Fund for Guarantee
EAFRD	European Agricultural Fund for Rural Development

EBRD	European Bank for Reconstruction and Development
EC	European Community
ECHO	European Commission's Humanitarian Aid Office
EEA	European Economic Area
EEN	Enterprise Europe Network
EFF	European Fisheries Fund
EFTA	European Free Trade Association
EIB	European Investment Bank
EICTA	European ICT Industry Association
EIF	European Investment Fund
EIP	Entrepreneurship and Innovation Programme
ELLECTRA-WEB	European Electronic Public Procurement Application Framework in the Western Balkan Region (project)
ENISA	European Network and Information Security Agency
ENPI	European Neighbourhood and Partnership Instrument
ERA	European Research Area
ERA-NET	European Research Area Network (project type in Framework Programmes)
ERAWATCH	Project that provides information on European, national and regional research policies, actors, and programmes in the EU and beyond (http://cordis.europa.eu/erawatch/)
ERC	European Research Council
ERCIS	European Research Center for Information Systems
ERDF	European Regional Development Fund
ERG	European Reintegration Grants (project type in FP7)
ESF	European Social Fund
ESF	European Science Foundation
ESFRI	European Strategy Forum on Research Infrastructures
ESPON	European Spatial Planning Observation Network
EU	European Union
EU27	The 27 member countries of the EU
EUREKA	European Research Coordination Agency (Pan-European research and development funding and cooperation organisation)
FP	Framework Programme
FP6	6th EU Framework Programme on Research, Technological Development and Demonstration Activities (2002-2006)
FP7	7th EU Framework Programme on Research, Technological Development and Demonstration Activities (2007-2013)
FYR of Macedonia	Former Yugoslav Republic of Macedonia
GDP	Gross Domestic Product

GEANT	European multi-gigabit Computer Network for Research and Education Purposes
GREAT-IST	FP6 project
GRNET	National Research and Education Network of Greece
HITRA	Croatian Programme for Innovative Technological Development
HEIs	Higher Education Institutions
IAPP	Industry Academia Partnership Pathway
ICT	Information and Communication Technology (also a sub-programme of the FP7 Specific Programme on Cooperation)
ICT-WEB-PROMS	Promoting ICT Cooperation Opportunities and Policy Dialogue with the Western Balkan Countries (FP7 project)
IDABC	Interoperable Delivery of European eGovernment Services to public Administrations, Business and Citizens
IEE	Intelligent Energy Europe (part of CIP programme)
IEF	Intra-European Fellowships for Career Development
IMG	Individual Mobility Grant
INCO	Specific International Scientific Cooperation Activities
INCO-NET	International Cooperation on Science and Technology Network (project type in FP7)
INIMA	Institute of Informatics and Applied Mathematics
IPA	Instrument for Pre-Accession Assistance
IPTS	Institute for Prospective Technological Studies
IRSES	International Research Staff Exchange Scheme
ISIS	Infra Structure for broadband access in wireless/photronics and Integration of Strengths in Europe (FP project)
IST	Information Society Technologies (Programme in FP6)
IS2WEB	Extending Information Society Networks to the Western Balkan Countries (FP6 project)
IT	Information Technologies
ITN	Initial Training Network (project type in the FP7 SP People)
i2i programme	Idea to Innovation Programme
JEPs	Joint European Projects
JRC	Joint Research Centre
LEADER	Liaison entre actions de développement de l'économie rurale
LIFE+	L'Instrument Financier pour l'Environnement, Financial Instrument for the Environment
LLL	Life Long Learning Programme
MARNET	Macedonian Academic and Research Network
MESA	Macedonian E-Society Association
MIPD	Multi-annual Indicative Planning Document (as part of the Instrument for Pre-Accession IPA)

MREN	Montenegrin Research and Education Network
MS	Member State
NATO	North Atlantic Treaty Organisation
NATO SPS	NATO's Science for Peace and Security Programme
NCP	National Contact Point
NGO	Non Governmental Organisation
NMS	New Member States
NoE	Networks of Excellence (project type in FP6 and FP7)
NOK	Norwegian Krone
PCC	Potential Candidate Countries
PESC	Physical and Engineering Sciences
PHARE	Poland and Hungary: Aid for Restructuring of the Economies
PSP	Policy Support Programme
RCC	Regional Cooperation Council
RRPP	Regional Research Promotion Programme
RTD	Research and Technological Development
RCUB	Computer Centre of Belgrade University
RDI programme	Research Development and Innovation programme
RTD	Research and Technological Development
RTDI	Research, Technological Development and Innovation
SAA	Stabilisation and Association Agreements
SARNET	Republic of Srpska's academic Research Network
SC	Scientific Council
SCM	Structural and Complementary Measures
SCOPEs	Scientific Co-operation between Eastern Europe and Switzerland
SCOPUS	Agreement for National Access to the Electronic Scientific Databases
SCORE	Strengthening the Strategic Co-operation between the EU and Western Balkan region in the field of ICT Research (FP6 project)
SEE	South-East Europe
SEE-ERA.NET	Southeast European ERA-Net (FP6 project)
SEE-ERA.NET PLUS	Southeast European ERA-Net PLUS (follow-up project in FP7)
SEEFIRE	South-East Europe Fibre Infrastructure for Research & Educational
SEE-GRID	South Eastern European GRid-enabled eInfrastructure Development
SEEREN	South Eastern European Research and Education Network
SEE-Science.EU	Information Office of the Steering Platform on Research for the Western Balkan countries (FP6 project)
SFF	Structured Finance Facility
SME	Small and Medium Enterprises
STI	Science, Technology and Innovation
S&T	Science and Technology

TRISTAN-EAST	Training of IST Multipliers and Awareness Nurturing in the 3rd Countries of EAST and South East Europe (FP6 project)
UK	United Kingdom
UMTS	Universal Mobile Telecommunications System
UN	United Nations
UNDP	United National Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSCR	United Nations Security Council Resolution
URBACT	Connecting Cities Building Success
USAID	United States Agency International Development
WBC	Western Balkan Countries (Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro, Serbia, and Kosovo (UN Resolution 1244))
WBC-INCO.NET	Coordination of Research Policies within the Western Balkan Countries (FP7 project)
WiMAX	Worldwide Interoperability for Microwave Access
WINS-ICT	Western Balkan Countries Inco-Net Support in the field of ICT (FP7 project)
xDSL	digital subscriber lines

ANNEX 2: ACKNOWLEDGEMENTS

Thanks to the information on programmes in the web, extensive data could be provided here. This deliverable is based on the outcome of several studies, sources for the initial report, series of updates by WINS-ICT partners, etc.

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Academy of Sciences of Albania: <http://www.akad.edu.al/>

Brain Gain Albania: www.braingain.gov.al

Government Electronic Network : <http://www.govnet.undp.org.al/>

Government Network: <http://www.keshilliministrave.al>

Ministry of European Integration: <http://www.mie.gov.al/>

Public Procurement Agency-E-Procurement System: <http://app.gov.al>

Support to Pilot e-Government Services for Government of Albania :

<http://www.eservices.undp.org.al/>

Albanian Agency for Business and Investment <http://www.albinvest.gov.al/>

ISSETI <http://www.isseti.org/>

Bosnia & Herzegovina

Ministry of Civil Affairs - Bosnia and Herzegovina <http://www.mcp.gov.ba>

Federal Ministry of Education and Science: <http://www.fmon.gov.ba/>

Ministry of Science and Technology - Republic of Srpska <http://www.vladars.net>

Agency for Information Society of Republic of Srpska www.aidrs.org

Agency for Development of Small and Medium-sized Enterprises in Republic of Srpska

<http://www.rars-msp.org>

EXIT Consulting Ltd. <http://www.exitcentre.com>

Informatical Associations of Republic of Srpska <http://www.pmfbl.org>

Ministry of Science and Technology, Centre for Project Management - Republic of Srpska

<http://www.cpm-rs.info>

USAID BiH Cluster Competitiveness Activity <http://www.usaidcca.ba>

Faculty of Information Technologies: <http://www.fit.ba>

Croatia

Ministry of Science, Education and Sports - Croatia: <http://www.mzos.hr/>

CARNET- Croatian Academic and Research Network <http://www.carnet.hr/en>

Croatian ICT Cluster Initiative <http://www.cro-ict.net/>

Croatian Institute of Technology (CIT) <http://hit.hit.hr>

National Competitiveness Council <http://nvk.multilink.hr/>

National Foundation for Science, Higher Education and Technological Development of the Republic of Croatia <http://www.nzz.hr/>

HITRA Croatian Innovative Technological Development Programme

<http://www.carnet.hr/referalni/obrazovni/en/ppod/HITRA>

Croatian Chamber of Economy <http://www.hgk.hr>

Croatian Employers' Association - National Centre for Clusters <http://www.hup.hr>
Centre for SME and Entrepreneurship Policy <http://www.cepor.hr/>
Croatian Academy of Sciences and Arts <http://www.hazu.hr>
Croatian Agency for SMEs <http://www.hamag.hr/>
Rudjer Boskovic Institute <http://www.irb.hr>
Institute of International Relations: <http://www.imo.hr>
Ivo Pilar Institute of Social Sciences: <http://www.pilar.hr>

Former Yugoslav Republic of Macedonia

Ministry of Education and Science - FYRo Macedonia <http://www.mon.gov.mk/>
Information and Communication Technologies Chamber of Commerce Skopje
<http://www.masit.org.mk>
Information Agency: <http://www.sinf.gov.mk/>
MESA - Macedonian E-Society Association: <http://www.mesa.org.mk>
Macedonian Academy of Sciences and Arts <http://e20.manu.edu.mk>
Macedonian Academy of Sciences and Arts - ICEIM Research Center
<http://e20.manu.edu.mk/icei/>
Agency for Foreign Investments of the Republic of Macedonia
<http://www.investinmacedonia.com>
Open Society Institute <http://www.soros.org.mk>

Montenegro

Ministry of Education and Science - Montenegro <http://www.gov.me/eng/minprosv/>
MREN-Montenegrin Research and Education Network <http://www.mren.ac.me/index.php>
Agency for International Scientific, Educational, Cultural and Technical Cooperation
<http://www.gov.me/eng/zamtes>
Montenegro Business Alliance <http://www.visit-mba.org/>
University of Montenegro <http://www.ucg.cg.ac.yu/eng/>
COBISS.CG (Co-operative Online Bibliographic System and Services)
http://vbcg.vbcg.me/cobiss/cobiss_cg-en.htm

Serbia

Ministry of Telecommunications and Information Society - Serbia <http://www.mtid.sr.gov.yu>
Ministry of Science and Technological Development - Serbia <http://www.nauka.gov.rs>
Belgrade Open School - Centre for Research of Information Technologies www.bos.rs
AMRES- Academic Network of Serbia <http://www.amres.ac.rs/>
National Information Technology and Internet Agency, Republic of Serbia :
<http://www.rzii.gov.rs/>
RCUB, Computer Centre of Belgrade University : <http://www.rcub.bg.ac.rs/>
Republic Telecommunication Agency, Republic of Serbia: <http://www.ratel.rs/>
Mihajlo Pupin Institute <http://www.imp.bg.ac.rs/>
Serbian Academy of Sciences and Arts <http://www.sanu.ac.rs>
University of Belgrade - Faculty of Electrical Engineering www.etf.bg.ac.rs

Kosovo (under UN Resolution 1244)

Ministry of Education, Science and Technology <http://www.masht-gov.net>

Programme Websites

Austrian Research Promotion Agency
<http://www.ffg.at/content.php?cid=968>

COIN - Cooperation and Innovation
<http://www.ffg.at/content.php?cid=983>

CIP Competitiveness and Innovation Programme
http://ec.europa.eu/cip/index_en.htm

CIP Entrepreneurship and Innovation Programme
http://ec.europa.eu/cip/eip_en.htm

Competitiveness and Innovation Programme Workprogrammes
<http://ec.europa.eu/cip/cipwp.htm>

COST
<http://www.cost.esf.org/>

COST Actions in the field of ICT
http://www.cost.esf.org/domains_actions/ict/Actions

COST ICT domain
http://www.cost.esf.org/domains_actions/ict

Cross-Border Cooperation Programme Serbia and Bosnia and Herzegovina 2007-2013
http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=33

Cross-Border Cooperation Programme Bulgaria - Serbia
http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=25

Cross-Border Cooperation Programme Serbia and Croatia 2007-2013
http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=32

Cross-Border Cooperation Programme Serbia-Montenegro 2007-2013
http://www.evropa.gov.rs/Evropa/PublicSite/CBC/NP_Programme.aspx?Id=7

DG Research:
<http://ec.europa.eu/research/index.cfm>

Education, Audiovisual and Culture executive Agency
http://eacea.ec.europa.eu/llp/index_en.php
http://ec.europa.eu/education/programmes/tempus/index_en.html
http://eacea.ec.europa.eu/tempus/index_en.php
http://eacea.ec.europa.eu/erasmus_mundus/programme/about_erasmus_mundus_en.php

EIP Work Programme (latest version 2009, check for updates)
http://ec.europa.eu/cip/docs/consolidated_eip_wp_may2009.pdf

Enterprise Europe Network
http://www.enterprise-europe-network.ec.europa.eu/index_en.htm

ESF Standing Committee for Physical and Engineering Sciences (PESC):
<http://www.esf.org/research-areas/physical-and-engineering-sciences.html>

Eurostars Programme
<http://www.eurostars-eureka.eu>

European Commission Lifelong Learning Programme
http://ec.europa.eu/education/programmes/newprog/index_en.html

European Commission: Joint Research Centre
<http://www.jrc.ec.europa.eu>
<http://ec.europa.eu/dgs/jrc/index.cfm?id=1630>,

European Research Council
<http://erc.europa.eu/index.cfm>

European Strategy Forum on Research Infrastructures on CORDIS
<http://cordis.europa.eu/esfri/home.html>

European Territorial Co-operation
http://ec.europa.eu/regional_policy/cooperation/index_en.htm
http://ec.europa.eu/regional_policy/cooperation/crossborder/index_en.htm
http://ec.europa.eu/regional_policy/cooperation/transnational/index_en.htm

Framework Programme 7 on CORDIS
http://cordis.europa.eu/fp7/home_en.html

FP7 CORDIS Call Finder
<http://cordis.europa.eu/fp7/dc/index.cfm>

FP7 CORDIS ICT Results service
<http://cordis.europa.eu/ictresults/index.cfm?section=home&tpl=home>

FP7 CORDIS Information and Communication Technologies (ICT)
<http://cordis.europa.eu/fp7/ict/>

FP7 Capacities on CORDIS
http://cordis.europa.eu/fp7/capacities/home_en.html

FP7 Cooperation Programme on CORDIS
http://cordis.europa.eu/fp7/cooperation/home_en.html

FP7 Ideas Programme on CORDIS
http://cordis.europa.eu/fp7/ideas/home_en.html

FP7 Marie Curie Actions:
http://cordis.europa.eu/fp7/mariecurieactions/home_en.html

FP7 People on CORDIS:
http://cordis.europa.eu/fp7/people/home_en.html

FP7 Summary of legislation on FP7:

http://europa.eu/legislation_summaries/research_innovation/general_framework/index_en.htm

ICT-Policy Support Programme

http://ec.europa.eu/information_society/activities/ict_psp/about/index_en.htm

ICT PSP Work Programme 2009 latest version 2009 (check for updates)

http://ec.europa.eu/information_society/activities/ict_psp/documents/ict_psp_wp2009.pdf

ICT-PSP Work Programme

http://ec.europa.eu/information_society/activities/ict_psp/about/themes/index_en.htm

Information and Communications Technology Networks, including Audiovisual

<http://www.eib.org/projects/topics/innovation/i2i-information-and-communications-technology-networks/index.htm>

International Bureau of the Federal Ministry of Education and Research

<http://www.internationales-buero.de/de/2296.php>

IPA Adriatic CBC Programme

<http://www.adriaticpacbc.org/>

IPA financial planning

http://ec.europa.eu/enlargement/how-does-it-work/financial-assistance/planning-ipa_en.htm

http://ec.europa.eu/enlargement/pdf/mipd_multibeneficiary_2008_2010_en.pdf

http://ec.europa.eu/regional_policy/index_en.htm

IPA general information:

http://ec.europa.eu/enlargement/how-does-it-work/financial-assistance/instrument-pre-accession_en.htm

EUREKA

<http://www.eureka.be>

NATO: Science of Piece and Security

<http://www.nato.int/science/>

NATO: Science of Piece and Security: Grant mechanisms

http://www.nato.int/science/nato_funded_activities/grant_mechanisms.htm

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<http://www.forskningsradet.no/westbalkan>

<http://www.forskningsradet.no/servlet/Satellite?c=Page&cid=1228296457225&pagename=westbalkan%2FHovedsidemal>

SEE ERA-NET project

www.see-era.net

SEE-ERA.NET report: National systems of research and development in Western Balkan Countries

SEE-ERA.NET: Report on the RTD needs of the West Balkan Countries

SEE-ERA.NET report: National RTD programmes for Southeast Europe

SEE-ERA.NET Pilot Joint Research projects

<http://www.see-era.net/pjc/index.html>

SEE-ERA.NET PLUS call

<http://plus.see-era.net/pjc/index.html>

Southeast Europe: Transnational cooperation Programme

<http://www.southeast-europe.net>

Swiss National Science Foundation

<http://www.snf.ch/E/international/abroad/scopes/Pages/default.aspx>

UNESCO

<http://www.unesco.org/science>

UNESCO Office Venice

<http://portal.unesco.org/en/ev.php->

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UNESCO Science policy series: Guidelines for a Science and Research Policy in BiH

UNESCO Science policy series: Science, technology and economic

Transnational Cooperation Mediterranean

<http://www.programmed.eu/index.php?id=13360&L=1>

World Bank: World Bank Institute

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ERCIS – European Research Center for Information Systems:
<http://www.ercis.org/ERCIS/en/index.php>
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Any many more

Documents and News available through **wbc-inco.net** project <<http://www.wbc-inco.net>>

Documents and News available through **The Southeast European Era-Net Project** <<http://www.see-era.net/>>

Documents and News available through **SCORE** project <www.score-project.eu>

ANNEX 3: GRAPH DISPLAYING EUROPEAN FUNDS



