

Project number 226160 – BS-ERA.NET

## **BS - ERA.NET**

### **Networking on Science and Technology in the Black Sea Region**

**Instrument:** Coordination and Support Actions (Coordinating type)

#### ***Deliverable 1.5***

#### **Position Paper on future RTDI co-operation in the Black Sea region**

Due date of deliverable: month 18

Actual submission date: month 21

Start date of project: 1 January 2009

Duration: 3 years

**Lead beneficiary for this deliverable: DLR**

Project co-funded by the European Commission within the Seven Framework Programme (2007-2013)

**Dissemination Level: PU**

**PU** = Public

**PP** = Restricted to other programme participants (including the Commission Services).

**RE** = Restricted to a group specified by the consortium (including the Commission Services).

**CO** = Confidential, only for members of the consortium (including the Commission Services)

## Content

|  |          |
|--|----------|
| <b>1. Introduction</b>   | <b>3</b> |
| <b>2. Commission: Black Sea Synergy – A new regional cooperation initiative and the Eastern Partnership.....</b>                         | <b>4</b> |
| <b>3. BSEC: Declaration of the Ministers Responsible for Science and Technology and Second Action Plan (2010-2014).....</b>              | <b>6</b> |
| <b>4. Good Practice examples in bilateral and multilateral R&amp;D Funding Programmes targeting the Black Sea Region.....</b>            | <b>8</b> |
| <b>5. Policy recommendations: Objectives and instruments for strengthening S&amp;T cooperation with and in the Black Sea region.....</b> | <b>9</b> |

## 1 Introduction

As Bulgaria and Romania, two Black sea littoral states, joined the European Union in 2007, the EU became part of the Black Sea Region. This region includes Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia and Ukraine. The European Union has already made major efforts to stimulate democratic and economic reforms, to project stability and to support development in the Black Sea area through wide-ranging cooperation programmes. Three EU policies are relevant in this context: the pre-accession process in the case of Turkey, the European Neighbourhood Policy (with five eastern ENP partners also being active in Black Sea cooperation) and the Strategic Partnership with the Russian Federation. Moreover, the EC has contributed to a whole range of sectorial initiatives of regional relevance.

The EU provides further instruments to strengthen the networking and coordination in the region such as the projects "BS-ERA.NET" and "INCO.NET EECA"<sup>1</sup>. INCO-NET EECA aims at enhancing the bi-regional S&T policy dialogue, looking for coordination with other EU policies. The objective of BS-ERA.NET is to develop and strengthen the coordination of public research programmes conducted at national and regional level and to provide a framework for mutually open national and regional research programmes, leading to concrete cooperation in the frame of a Black Sea Research Programme (BSRP). One task of the BS-ERA.NET is the elaboration of a position paper on future cooperation in RTDI (Research, Technology, Development and Innovation) in the Black Sea Region in order to support the development of policy recommendations for the cooperation in and with the region.

Future RTDI cooperation in and with the Black Sea Region will be visualised from different perspectives corresponding to separate sections of this document. The last chapter will present an overlay of the previous sections and will discuss and lead to recommendations with regard to on future RTDI co-operation in the Black Sea region. The initial sections are based on currently developed policy initiatives and reports such as:

- the "Black Sea Synergy – A new regional cooperation initiative and Eastern Partnership" by the European Commission (2007) and the "Second BSEC Action Plan on Cooperation in Science and Technology (2010 – 2014)" adopted by the Science Ministers of the BSEC Member states in April 2010;
- the Declaration of the Ministers Responsible for Science and Technology of the BSEC Member States (Black Sea Economic Cooperation), of Sofia, 9 April 2010;
- the result of an analytical approach to identify Good Practice examples in bilateral and multilateral R&D Funding Programmes targeting the Black Sea Region within the BS ERA.NET project
- A White paper published in the frame of the EU-funded project SEE-ERA.NET on overlaps, gaps and opportunities in view of the extension of bilateral RTD Programmes and initiatives towards multilateral approaches.

---

<sup>1</sup> INCO.NET EECA: S&T International Cooperation Network for Eastern European and Central Asian Countries

- An analysis of the EU-Bi-regional and Intraregional RTDI Initiatives and a comparison with initiatives in the Black Sea Region done in the Work package 1 (D1.3) of the Black Sea ERA.NET project

## **2 Commission: Black Sea Synergy – A new regional cooperation initiative and the Eastern Partnership<sup>2</sup>**

The Black Sea Synergy as being a part of the European Neighbourhood Policy is an initiative launched in 2008 of the European Commission complementary to the policies of the pre-accession strategy with Turkey, the Eastern Partnership and the Strategic Partnership with Russia. It focuses political attention at the regional level and invigorates on-going cooperation processes. The primary task of Black Sea Synergy is the development of cooperation within the Black Sea region and also between the region as a whole and the European Union. This initiative is open to all partner countries in the wider Black Sea Region who want to participate and in particular includes institutions that are active in the Region like the BSEC and the Black Sea Commission.

This fully transparent and inclusive initiative is based on the common interests of the EU and the Black Sea region and takes into account the results of consultations with all Black Sea states. A Report on the first year of implementation of the Black Sea Synergy was adopted on 19.06.2008<sup>3</sup>. Black Sea Synergy is intended as a flexible framework to ensure greater coherence and policy guidance. Black Sea Synergy would focus on those issues and cooperation sectors which reflect common priorities and where EU presence and support is already significant:

- Democracy, respect for human rights and good governance;
- Managing movement and improving security;
- The “frozen” conflicts;
- Energy;
- Transport;
- Environment;
- Maritime Policy;
- Fisheries;
- Trade;
- Research and Education Networks;
- Science and Technology (S&T);
- Employment and social affairs; and
- Regional Development.

---

<sup>2</sup> Commission of the European Communities: COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT BLACK SEA SYNERGY - A NEW REGIONAL COOPERATION INITIATIVE. Brussels, 11.04.2007, COM(2007) 160 final

<sup>3</sup> COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT REPORT ON THE FIRST YEAR OF IMPLEMENTATION OF THE BLACK SEA SYNERGY Brussels, 19.6.2008 COM(2008) 391 final

Almost temporal and geographical in parallel to the Black Sea Synergy the Eastern Partnership was initiated in May 2009. Besides of the European Union the post-Soviet states Azerbaijan, Armenia, Belarus, Georgia, Moldova and Ukraine are included. The Eastern Partnership aims to foster the political association and the economic integration of above countries by improving the political and economic relations with the EU. Both initiatives Eastern Partnership and Black Sea Synergy have assisted to develop cooperation between the European Union and the Black Sea Region.

In the area of Science and Technology, efforts to consolidate the potential of the Black Sea countries and to establish stronger links with the scientific community of the EU were spearheaded by the INCO Programme of the 6<sup>th</sup> Framework Programme for Science, Technology and Development (2002-2006). This programme was aimed at Bulgaria, Romania and Turkey as well as eastern ENP partners. The Framework Programme included additional and substantial cooperation with the latter, particularly through the INTAS Programme which focused on cooperation between the EU and Eastern Europe and Central Asia.

The Commission intends to promote capacity-building and S&T policy dialogue with the Black Sea countries, in particular through the new instruments available under the 7<sup>th</sup> Research Framework Programme (FP7). It will ensure the inclusion of specific research activities and topics of mutual interest in FP7 Work Programmes and will promote synergies between FP7-funded activities and other appropriate EC financial instruments.

With regards to RDTI cooperation between the Black Sea Region and the European Union the Black Sea Synergy initiative has launched the Environmental Partnership in March 2010. This was established to find cooperative approaches for protection of the Environment as challenges that is faced in Black Sea Region. In particular five possible areas were suggested:

- (i) Addressing environmental problems in the so-called “hot-spots”,
- (ii) Integrated coastal zone management,
- (iii) Protection of the biodiversity,
- (iv) Eco- innovation as an important driver for sustainable development, and
- (v) Effective monitoring and data collection<sup>4</sup>.

The interconnection of the National Research and Education Networks (NRENs) to the pan-European research backbone GEANT has been achieved for all the European Union Member States, EC Candidate Countries and the majority of the Black Sea Countries. In addition through the BSI network the Black Sea Countries Georgia, Armenia and Azerbaijan are connected. There is mutual interest in providing high-speed connectivity between research and education communities and in promoting legal and regulatory harmonisation of these countries' frameworks with the EU framework. Furthermore, there is a need to promote the deployment of broadband infrastructure and the introduction of online services in the field of e-Government, e-Business, e-Health and the use of ICT in education and research.

---

<sup>4</sup> European Neighbourhood Policy: Launch of the Environmental Partnership of the Black Sea Synergy, Brussels 15-16 March 2010, Environment Commissioner Janez Potočnik

The Tempus programme will serve as a useful instrument for establishing cooperation projects between universities in the EU and Black Sea region, focusing on higher education reform.

### 3 BSEC: Declaration of the Ministers Responsible for Science and Technology and Second Action Plan (2010-2014)

BSEC (Black Sea Economic Cooperation) is an international organization currently including 12 Member States around the Black Sea and in the Balkan Peninsula, namely: the Republic of Albania, the Republic of Armenia, the Republic of Azerbaijan, the Republic of Bulgaria, Georgia, the Hellenic Republic, the Republic of Moldova, Romania, the Russian Federation, Serbia, the Republic of Turkey, and Ukraine<sup>5</sup>.

Among several initiatives of BSEC a very important one was the adoption by the Ministers responsible for Research of the BSEC member states, in September 2005, of the “BSEC Action Plan on Cooperation in Science and Technology”. The Action Plan identifies key topics for intervention that need to be addressed as a matter of priority in order to activate the scientific and technological potential of the BSEC member states and to enhance cooperation among them and with the European Union.

In April 2010 the Ministers responsible for Science and Technology of the Organisation of the Black Sea Economic Cooperation (BSEC) Member States met in Sofia. The aim was to assess and develop cooperation in the fields of scientific research and technological development of the Black Sea region and to update the Action Plan of 2005 by the Second BSEC Action Plan on Cooperation in Science and Technology (2010-2014)<sup>6</sup>.

In the Declaration of the Ministers Responsible for Science and Technology of the BSEC Member States (Sofia, April 9, 2010), the Ministers declare their commitment:

- **To further strengthen** regional cooperation in the fields of scientific research and technological development as a major driving force of dynamic and sustainable economic growth and prosperity for the peoples of the region;
- **To invest** all best efforts in the enhancement of the regional dimension of the cooperation among the BSEC Member States in the agreed areas of action and specific activities, i.e.:
  - (i) human resources;
  - (ii) capacity building;
  - (iii) research infrastructure; and
  - (iv) innovation,

<sup>5</sup> <http://www.bsec-organization.org>

<sup>6</sup> Second BSEC Action Plan on Cooperation in Science and Technology (2010-2014), April 9, 2010, Sofia

- **To ensure** that the cooperation within the BSEC through benchmarking activities, exchange of good practices, sharing experiences, etc. become instrumental and thus boost the development and implementation of national future-oriented Science and Technology policies.
- **To initiate** joint actions directed toward better utilisation of the existing human and material resources, research infrastructure and administrative capacities through improved access to knowledge, training activities and research programmes, enhanced transnational mobility of scientists and regular exchanges of information and publications, bilateral and regional networking, fellowships and joint scientific events;
- **To seek** innovative ways for combining allocated public expenditure on research and development with private investment, including public-private partnerships for funding specific projects involving transnational cooperation and for disseminating relevant information about procedures for accessing other available financial resources (EU and UN programmes, IFIs, specialised foundations, etc.);
- **To promote** a dynamic dialogue among stakeholders in the science and technology community – research organisations, industry, user groups – in order to ensure their cost effective and result-oriented interaction for the purpose of converting scientific discoveries into innovative, commercially viable products and processes;
- **To encourage** the mobility of students, academic staff and researchers across the BSEC region within the framework of appropriate programmes;
- **To develop** joint research and training programmes between Scientific Institutions and Universities of the BSEC Member States in compliance with their priorities;
- **To facilitate** closer cooperation in the fields of science and technology with other partners and international organisations and to encourage co-funding schemes in order to formulate and implement regional research projects and to generate new synergies, in particular with the activities carried out under EU programmes and initiatives; [...].”

In parallel to the Declaration, the Ministers adopted the “Second BSEC Action Plan on Cooperation in Science and Technology (2010-2014), April 9, 2010, Sofia”. The purpose of the Second Action Plan is to renew the commitment of the BSEC Member States to cooperate in the development of S&T and to reconfirm the broader policy orientations for such cooperation. In addition, it proposes and highlights a number of more specific initiatives and tools.

The aim of the Second BSEC Action Plan is to:



- Re-confirm the political will for cooperation in S&T among the countries of the BSEC region and also enhance the cooperation with the EU, contributing therefore to the opening of the European Research Area;
- Define the most promising fields and priorities for collaboration in research and innovation among the BSEC countries extending also to other New Independent States (“broader BSEC”);
- Sketch out an early version of a structured cooperation mechanism at the BSEC regional level in the sphere of Science and Technology and procedures for interaction with the relevant departments of the European Commission.

This includes to reconfirm the broad policy orientations and the set objectives in the fields of Human Resources, Capacity building, Research infrastructures and Innovation and to underlay them with priority policy orientations.

The implementation of concrete actions will be facilitated by specific initiatives and tools that build on the political commitment for increased cooperation among the BSEC Member States and that take into consideration the capabilities available in the region. Measures to achieve the set goals are:

- MoUs (Memoranda of Understanding);
- Black Sea Sectorial Partnerships;
- Optimal use of PDF (Project Development Fund);
- Synergies and support to multilateral horizontal projects;
- Bilateral Cooperation Programmes;
- Other specific initiatives (e.g. thematic Workshops, brokerage events).

#### **4 Good Practice examples in bilateral and multilateral R&D Funding Programmes targeting the Black Sea Region**

Within the scope of the analytical work package of the Black Sea ERA-NET project, existing R&D programmes targeting the Black Sea Region were identified and analysed in different tasks and documents. The programmes listed below can serve as good-practice examples and be a basis of future RTDI co-operation in the Black Sea Region and moreover have impact to the design of a Black Sea Regional Program. Details of those RTDI funding programmes can be found in D1.2 “Portfolio Analysis of research programmes targeting the BSR”:

- 1) The EU-funded SEE.ERA-NET and SEE.ERA-NET PLUS projects. Here bilateral inter-governmental cooperation programmes of 14 Partner countries were opened and a joint funding instrument was launched.
- 2) Two programmes of the Central European Initiative (CEI) and the European Union, showing how to exploit synergies between multilateral programmes (the CEI S&T Programme CERES and Framework Programme 7) in order to reduce fragmentation and increase funding.



- 3) The programme of the German Federal Ministry of Education and Research (BMBF/IB) Intensified Cooperation (IntenC): Promotion of German-Turkish Higher Education Research. It is designed as a flexible bilateral agreement between programme owner and programme management agencies for the development of innovation cooperation schemes between Universities and for the initiation of joint research projects. The projects are evaluated separately in each country, followed by a joint agreement on projects to be funded.
- 4) The Programme for International Scientific Cooperation of CNRS in France. This programme allows for the creation of flexible bilateral agreements with a single programme owner (or research organisations). A similar programme exists also at CNR (Italy); it was used as basis for establishing bilateral agreements with Armenia, Georgia and Moldova and as result of the short-term visit of delegations of those countries to Italy. Existing bilateral agreements of CNR include those with the Bulgarian Academy of Science and with TUBITAK (Turkey).
- 5) Two programmes of the DFG (German Research Foundation): Initiation and Enhancement of Bilateral and Multilateral Programmes, and International Research Training Groups. The first one is interesting because of its flexible mechanisms in establishing initial bilateral cooperation, while the second one is interesting from the point of view of providing access to research know-how and equipment in German universities.

## **5 Policy recommendations: Objectives and instruments for strengthening S&T cooperation with and in the Black Sea region<sup>7</sup>**

When defining policy recommendations for future S&T cooperation with the Black Sea Region, other similar initiatives should be considered such as SEE-ERA.NET (South-East European Era.Net)<sup>8</sup>. This is a networking project aimed at integrating EU Member States and Southeast European countries in the European Research Area by linking research activities within existing national, bilateral and regional RTD programmes. In the frame of one of its Work Packages, a White Paper was elaborated offering strategic recommendations for further activities of both the SEE-ERA.NET consortium and other major stakeholders throughout Europe. Building on each other's strengths and common interests, and acknowledging recent challenges faced by the integration process, the authors address the national and transnational framework for S&T cooperation; they also propose concrete joint action through the setting up of a Regional RTD Programme.

In addition experiences obtained in the scientific and technological development in other regions may help in developing strategies for the Black Sea region. These Regions could be the Euro-Mediterranean Region (RTD Cooperation in MoCo), the Western Balkan countries

<sup>7</sup> Source: Rost et al. 2007: White paper on overlaps, gaps and opportunities in view of the extension of bilateral RTD Programmes and initiatives towards multilateral approaches. Published in the frame of the EU-funded project SEE-ERA.NET.

<sup>8</sup> <http://www.see-era.net/doc/important>

and the Joint Baltic Sea Research Programme. An analysis of the EU-Bi-regional and Intraregional RTDI Initiatives and a comparison with initiatives in the Black Sea Region was done in the work package 1 (D1.3) of the Black Sea ERA.NET project. This comparison and the analysis show that all of them are well established initiatives with sustainable governance structures and regular meetings and a secretariat. Furthermore, they are all supported by the European Commission.

Having a closer look at the objectives of the SEE-ERA.NET White Paper and the analysis done in the Black Sea ERA.NET project comparable approaches can be followed and proposed while considering the Black Sea Region. The following objectives should be considered:

- i. Establishment of a bi-regional policy dialogue platform EU – Black Sea Region<sup>9</sup>

A formal bi-regional policy dialogue platform EU – Black Sea Region, does not exist. Such a Platform involving representatives of the respective research administration organisations could be very beneficial for the S&T cooperation in general and, moreover, for the launching of a joint call i.e a region program for the Black Sea Region that demands an increased coordination and commitment.

Since the establishment of such a Platform is currently not envisaged, synergies with the existing structures and in particular with the BSEC Working Group on cooperation in S&T, could be an option to be explored. The BS-ERA.NET consortium already made a first step in opening the collaboration and exchanging information with two main initiatives:

- ERA.Net RUS (by fulfilling in close collaboration some of the project activities, such as exchanging and collecting information on the national R&D programmes);
- BSEC (by involving the Deputy Secretary General of the BSEC PERMIS in the project activities as a member of BS-ERA.NET Advisory Board).

Other possible synergies will be analysed and developed during the project lifetime:

- Information of the BSEC Working Group on cooperation in S&T about the envisaged launching of a joint call;
- Meeting of Joint BSEC Working Group on cooperation in S&T / BS-ERA.NET / joint call stakeholders at the margin of the formal Working Group or BS-ERA.NET meetings.

For the exploration of such synergies and possible joint actions, close coordination with the BSEC Country Coordinator for S&T should be established. Since during the next four years, the Hellenic Republic and Turkey will act as Country Coordinators for S&T through research administrations/institutions that are also partners in the BS-ERA.NET project (GSRT and TUBITAK respectively), such coordination can be highly facilitated. In addition, the

---

<sup>9</sup> Deliverable 1.3 Analysis of EU-Bi-regional and Intraregional RTDI Initiatives and Comparison with Initiatives in the Black Sea Region, Black Sea ERANET <http://www.bs-era.net>

International Centre for Black Sea Studies, another BS-ERA.NET partner, in its capacity as BSEC related body can be instrumental in the development of synergies.

## **ii. Improving human capacity building and international mobility**

An important component of research capacity of any institution is availability of the Human Resource. Capacity building in Human Resources requires training institutions and investments in education in schools and universities. Training for youth and adults and has been recognized as being a central element in developmental and internalisation of scientific progress. It directly affects the ability to do research, cooperation in research and the presentation and propagation of achievements. In the context of strengthening S&T cooperation between the Black Sea Region and the European Community by supporting international mobility following initiatives are proposed:

- a-** With respect to international inward and outward mobility, it should be commonly acknowledged that encouraging brain circulation is an opportunity for the Black Sea Countries as well. It is essential that Black Sea Countries scientists can move freely within the growing European Research Area and outside Europe. The host countries should support access for Black Sea researchers by simplifying their visa regimes. In addition, the framework for researcher mobility could be improved by introducing inward and outward oriented fellowship programmes, including return fellowships for expatriate scientists from the Black Sea Countries and by launching bilateral or multilateral project oriented exchange programmes.
- b-** A stimulating environment for visiting scientists to the Black Sea Region would improve visibility of scientific achievements and potential to the international community. Particular emphasis should be given to student and graduate scientists..
- c-** As women are currently under-represented in the field of scientific research promoting measures specifically aimed at encouraging women to take part in research and for the enhancement of women's career prospects are necessary. Awareness should be given in implementing equal opportunities for women in science and research.

## **iii. Fostering innovation potential in the Black Sea Countries through academia-industry relationships**

Cooperative work between research oriented industries and academic sector is a very efficient way to foster, accelerate and diversify the development of novel technological solutions and products. In the Black Sea Countries this relationship is poorly developed at present. A common understanding and a relationship of trust between the academia and industry partner is essential to develop such partnerships. This type of research activities can strengthens the position of both partners with particular emphasis on small and medium sized companies (SME). Whereas the Academia need to prove to industry that it is capable of

solving the specific problems of industry or of opening new markets. This is the only motivation for the private sector to increase its investment.

#### **iv. Integration of the Black Sea Countries into the European Research Area**

As described above a number of European instruments already exist for fostering S&T cooperation with the Black Sea Countries. Additional below strategies could be considered:

- a- Additional bilateral or multilateral funding schemes with coordinated calls should be developed by interested EU Member States and the Black Sea Countries. Here the EU ERA-NET or ERA-NET plus scheme might be applied.
- b- Even outside the scope of bilateral or multilateral funding schemes, the joint peer review of project proposals remains important as a way of evaluating and benchmarking scientific performance in the Black Sea Countries and for improving the knowledge of European standards in science management.
- c- At a more operational level, and in particular with regard to the Good practice programmes given in section 4 the exploration of participation of the BSEC Project Development Fund (PDF), the BSEC Hellenic Development Fund and of the Black Sea Trust (BST) in a joint call e.g. a region program for the Black Sea Region.

#### **v. Establishing new mechanisms to allow the docking of Black Sea institutions to established European consortia and networks**

A key target must be to incorporate S&T institutions and innovative companies in the Black Sea Countries into the European science and innovation community. Assistance should be given to allow possible project partners from Black Sea Countries to have access to on-going S&T and innovation projects. Particular attention should be given to those consortia which are funded within the EU Framework Programme for Research and Technological Development, EUREKA and COST.