



Annex III to BS/STM/R(2010)1

SECOND BSEC ACTION PLAN ON COOPERATION IN SCIENCE AND TECHNOLOGY (2010-2014)

A. Introduction

The impact of Science and Technology on the sustainable economic development and prosperity is widely recognized. In this respect, the BSEC Member States, based on their rich and long-lasting tradition in S&T, are devoting particular attention for the further development and strengthening of that field, both at national level and in the Organization as a whole. The purpose of the present second Action Plan is therefore to **renew the commitment** of the BSEC Member States to cooperate in the development of S&T and to **reconfirm the policy orientations** for such cooperation, taking into consideration the developments in the policy landscape in the BSEC, but also building on the achievements of the Action Plan 2005 – 2009. Furthermore, the second Action Plan in addition to the reconfirmation of broader policy orientations proposes and highlights a number of more **specific initiatives and tools** the use of which will provide tangible results, increasing at the same time the visibility of its interventions in the eyes of the wider community.

B. Broader landscape

The second Action Plan on Cooperation in Science and Technology (2010-2014), pursue the Action Plan on Cooperation in Science and Technology 2005-2009 which was adopted by the Ministers Responsible for Research of the BSEC Member States (Athens, 27 September 2005) and takes also into consideration the Mid-term Report on the implementation of the Action Plan 2005-2009 approved at Ministerial level (Istanbul, 31 October 2007) and the Assessment of the BSEC Action Plan on Cooperation in Science and Technology 2005-2009.

Since the adoption of the Action Plan 2005-2009 there have been a number of important developments in the policy landscape in the Black Sea region that have significant implications for regional and bi-regional cooperation in various fields including Science and Technology.

Within the BSEC one important development has been the establishment of the ad-hoc Group of Experts on BSEC-EU Interaction and the adoption of the Working Paper 'BSEC-EU Interaction: The BSEC Approach' by the BSEC Committee of Senior Officials upon authorization by the Council of Ministers of Foreign Affairs of the BSEC Members States.

At the same time, the European Commission has communicated in quick succession two key policy documents that define the EU's strategy towards the wider Black Sea area, namely the 'Black Sea Synergy – A new regional cooperation initiative' COM (2007) 160 and the 'Eastern Partnership' COM (2008) 823/4.

In both the BSEC Working Paper and the EC Communication on the 'Black Sea Synergy', Science and Technology is identified as a priority field for the development of mutually beneficial bi-regional BSEC-EU cooperation.

In parallel to the aforementioned developments at political level, at operational/project level significant initiatives are under implementation aiming at an enhanced cooperation among the countries of the wider Black Sea region with EU Member States in the field of S&T. Two such projects are the EU funded 'S&T International Cooperation Network for Eastern European and Central Asian Countries' (*IncoNet EECA*) and 'Networking on Science and Technology in the Black Sea region' (*BS-ERA.NET*) that started at the beginning of 2008 and 2009 respectively. A third one, the SEE ERA NET+ project under FP7 EU, focuses on the strengthening the networking among the S&T stakeholders of the South-East European countries. The BSEC Member States constitute the most organized nucleus among the large number of countries involved in the aforementioned projects. In this respect, the BSEC Member States should promote the development of synergies between the organization's own activities and the ones foreseen in the projects, including the formulation of proposals for mutually beneficial joint actions.

C. Reconfirmation of Policy Orientations

In the course of the past four years progress has been observed along the lines drawn in the Action Plan 2005-2009. However, since most of the set objectives constitute long term goals, there is a need to reconfirm the most pertinent ones, taking into account the broader landscape and the achievements so far, in the fields of *Human resources*, *Capacity building*, *Research infrastructures* and *Innovation*.

Human resources

The countries of the BSEC region have a long tradition and notable accomplishments in the fields of scientific research and technological development. As the serious adversities that some of them faced in the past years are gradually surpassed, there is a need to strengthen, stimulate and exploit the remarkable long lasting expertise and creative potential as assets for national and regional development. In this respect, the following policy orientations should be addressed in priority:

1. Further promotion of the crucial social role of the experts involved in science and technology for a knowledge-based sustainable development;
2. Enhancement of the performance of local research personnel through a stable working environment, mobility schemes, exchange of scientists, and mutual participation in scientific events;
3. More incentives to young researchers to pursue careers in RTD locally in order to avoid further brain-drain. In that respect the following could be envisaged:
 - a. The Organisation of Summer Schools in different Member States of BSEC on a regular basis with participation of invited prominent scientists and

experts in order to contribute to career development of young researchers could be envisaged. In addition, a Regional Scientific Competition for Youth can be organized, aiming at attracting the young generation into scientific activities.

- b. Launching a long-term targeted programme (TP) in support of mobility and career development of young researchers citizens of BSEC Member States utilising the research infrastructure and expertise of the best laboratories in this region. For this purpose, the establishment of networks of laboratories (NOLs) of the BSEC Member States as a common facility for the research conducted with wide participation of young researchers and responding to the priority domains of the BSEC could be beneficial.
 - c. Promoting and strengthening the science education, taking into account the actions promoted at national level as well as at regional and international level.
4. Training of policy makers and research administrators on the more efficient organization of national research systems.

Capacity building

Over the past 15 years in most of the BSEC Member States in-depth re-organization of the research systems and structures have taken place, in order to accommodate the needs of a changing environment. In this context, there is now a need to assess the progress, to consolidate the achievements and to address any weaknesses. The cooperation within the BSEC can be instrumental in this process through benchmarking activities, exchange of good practices, sharing experiences, etc. that will enrich the development and implementation of national future-oriented S&T policies. Considering that developing national science and education policies plays an essential role in the building of sustainable knowledge-based societies, the BSEC should also act as a platform for dialogue, cooperation and exchange of information and experience between decision-makers and the scientific community of the region.

Actions promoting and strengthening education and capacity-building in science and technology will be enhanced through the involvement of competent institutions in the BSEC Member States, such as the national academies, research councils and foundations active in the establishment of the knowledge-based society. An increased attention to the synergy between research and higher education should be promoted and the interdisciplinary communication enhanced. A special focus should be placed on highly skilled researchers mobility issues, encouraging, on the one hand, international mobility of talents and, on the other, mitigating the negative effects of 'brain drain'. Cooperation and coordination at regional and international level will be essential and to this end, synergies should be explored, particularly with the EU. In this respect the following activities could be considered:

1. Implementation of region-wide studies assessing the performance and potential of the research systems of the region, including the comparative assessment of the impact of the national research programmes;
2. Encouraging the assessment of the efficiency and impact of existing bilateral cooperation schemes among the BSEC Member States and beyond;
3. Promotion of policies and incentives for an increased participation of the private sector in the research systems of the region;
4. Implementation of evaluation procedures for research centres and institutes based on internationally accepted standards;
5. Promotion of the regulatory compatibility among the BSEC Member States in line with international standards through the review of the existing legal and administrative dispositions concerning the protection of intellectual property rights;
6. Harmonisation of the existing national standards and certification systems in the BSEC Member States by progressively abiding to the International Standard Organisation (ISO) norms;
7. Considering introducing a regional system of national contact points designed for the analysis of the activity of the units cooperating in the BSEC framework and to provide timely information on the on-going and planned research activities that are open and beneficial to cross-border cooperation and/or co-financing;
8. Supporting the operation of research centres that have undertaken to coordinate activities for the entire BSEC region in specific domains such as water quality, seismological research, etc. for the implementation of evaluation studies, road maps, etc.
9. Setting up an electronic database regarding the institutional profiles of research institutions from BSEC countries interested in bilateral/multilateral cooperation with partners from the Black sea region.

Research infrastructure

The renewal or upgrading of the research infrastructures remains an essential need in most of the BSEC Member States. Complementary to the imperative national financial investments, financing through public/private partnerships and/or external sources of funding should be further promoted. In addition, the following initiatives that possess stronger regional characteristics need to be considered with particular attention:

1. The elaboration of multinational infrastructure development projects of regional importance resulting in shared utilisation of modern infrastructure, including pilot regional facilities in BSEC Member States, by pooling the resources of several participating countries or research institutions as well as international sources of funding;
2. Enlarging, strengthening and ensuring the sustainability of the interlinking of national research and education electronic networks of the BSEC Member States to the European gigabit network GEANT/GEANT-2 and to other European *e*-infrastructures (such as *e*-Science, Grids, etc.).

Innovation

The optimum exploitation of the research results and in particular their transformation into innovative products and processes is considered as a key priority in all the BSEC Member States due to its direct positive impact on economic growth and prosperity. All the BSEC countries already devoted particular efforts to the development of innovation-related structures such as innovation relay centres, science and technology parks, incubators, etc. In this context, sharing experiences and good practices within the BSEC will consolidate the efforts, increase their impact and accelerate the achievement of the goals. To this end there is a need for:

1. Analytical comparative assessment of the performance of innovation-related structures for the identification of best practices.
2. Networking of innovation units at a regional level and with similar international structures, including those in the EU, to intensify the exchange of information and best practices.
3. Multilateral schemes, preferably in the BSEC regional format, for the training of specialist and managerial personnel involved in innovation structures.
4. Initiation of feasibility studies for the development of new innovation structures and identification of resources available and required to that end with the participation of relevant BSEC Related Bodies such as the Black Sea Trade and Development Bank and the BSEC Business Council.

D. Specific initiatives and tools

In order to increase the efficiency and impact of the second Action Plan, in addition to the proposed and jointly agreed broad policy orientations there is also a need to focus on more specific initiatives and tools that will facilitate the implementation of concrete actions in the field of S&T. Such initiatives should:

- Build on the political commitment for an increased cooperation among the BSEC Member States that has been expressed already in the 'BSEC Action Plan for cooperation in S&T' (2005-2009).
- Take into consideration the capabilities available in the region.

Among such initiatives the following could attract a particular attention and efforts from the BSEC Member States:

MoUs

The BSEC Member States should explore the possibility of preparing MoUs to promote cooperation in the specific field of S&T. The MoUs should focus on pertinent and realistic activities with a clear effective value for BSEC S&T regional cooperation. The MoUs should be discussed at the level of the BSEC Working Group on Cooperation in S&T. However, the participation of Member States in MoUs should be flexible allowing a variable geometry in their implementation.

Black Sea Sectoral Partnerships

The development of sectoral partnerships constitutes a new tool that is currently under consideration in the BSEC. Such partnerships could be instrumental for S&T related activities and therefore need to attract particular attention since they provide a

framework for the co-financing of selected activities and could constitute the basis for the attraction of external additional funds through the involvement of International Financial Institutions (IFIs).

Key elements that need to characterise such partnerships include: Project- or programme-driven endeavours; Open and voluntary participation; Appropriate funding arrangements; Flexible functioning.

Such sectoral partnerships could be the most appropriate scheme for the support of S&T related multilateral activities that involve already national funding (e.g. electronic networking) since through the partnership additional funds could be secured.

Optimal use of the PDF

The PDF constitutes a BSEC initiative with major political and practical visibility and impact. This fund has been successfully used by the BSEC scientific community and the role of the BSEC Working Group on Cooperation in S&T was instrumental in that process.

In order to further increase the impact of the S&T related activities supported by the PDF the scientific community should be oriented to submit proposals with increasingly evident the multiplier effect of the action. The Working Group should allocate specific importance to the multiplier effect parameter of the action in the selection process of the proposals.

Synergies and support to multilateral horizontal projects

Several multilateral horizontal projects are under implementation supported by external funding sources, among which the European Community's Seventh Framework Programme for Research and Technological Development (FP7) has a prominent place, and involving many BSEC Member States. These projects are highlighting on one hand the dynamic of the research community in the BSEC Member States and, on the other hand, the interest of external funding institutions for the region.

The BSEC Member States and the Organization as a whole should seek to maximize the synergies among the aforementioned projects and should provide the necessary support in terms of e.g. sharing of data and good practices, participation in relevant events, etc. in a mutually beneficial way. An intensified information flow between the projects' coordinators and the BSEC Member States through PERMIS could be instrumental in this respect.

Bilateral cooperation programmes

The numerous bilateral cooperation programmes constitute an undeniable capital of the BSEC Member States and of the Organization as a whole. Despite the incontestable national prerogatives on their strategy and content, such programmes should be further promoted and an increasing awareness on their functioning should be encouraged.

Moreover, new type of activities should be investigated among which their opening to a third BSEC country or their evolution to tri-lateral cooperation could constitute

challenging objectives. The Working Group, PERMIS and ICBSS could play a catalytic role in this process.

Other specific initiatives

Organization of thematic workshops that would gather the most prominent scientists from BSEC countries, assisted by colleagues from European Commission, in order to identify regional research priorities and challenges faced by Black Sea region.

Organization of brokerage events at different venues across BSEC countries, in order to connect scientists coming with innovatory achievements that can be exploited by the business sector.

Improvement of science communication that would seek, on one hand, to disseminate to public opinion, and political leaders – the scientific results achieved by the BSEC countries, and, on the other hand, to emphasize the role of science and technology in the general development process of modern societies.

E. Sources of Funding

It is not envisaged at this stage to have a dedicated budget at the BSEC level allocated to the implementation of the second Action Plan. The funding for relevant activities will be provided on a project-by-project basis from the currently available national and international financing schemes or a combination of them. In order to facilitate the access to, and rational use of, the existing sources of funding, the following measures are recommended:

- i) Encouraging the national authorities in the BSEC Member States to provide adequate information, training and advisory services for the proper preparation and presentation of project proposals by research centres, institutes, teams or individual scholars, with a view to assist their submission for funding according to internationally accepted standards and procedures.
- ii) Promoting the dissemination of relevant information concerning the operation of the BSEC Project Development Fund and the technical requirements for accessing various sources of funding (the European Community Framework Programme for Research and Technological Development, other financial instruments for sub-regional and bilateral activities under EU programmes, development aid programmes administrated by various United Nations agencies, the World Bank and other IFIs, bilateral assistance schemes, private foundations, etc.), with the support of national contact points and information multipliers, to prospective users throughout the BSEC region;
- iii) Considering joint programs by partner countries allocating funds to virtual or real common pots;
- iv) Supporting joint calls implemented through ERA-Net projects relevant for the region.

F. Implementation and Monitoring

The BSEC Working Group on Cooperation in S&T, as a permanent subsidiary body of BSEC, shall monitor the implementation of the second Action Plan and submit regular progress reports to the BSEC Committee of Senior Officials, the Council of Ministers of Foreign Affairs and to the Ministers responsible for Science and Technology of the BSEC Member States. The practical steps envisaged to that end could include the following:

- i) Whenever necessary and practicable, at the initiative of the Country Coordinator and the Chairmanship-in-Office, to convene an ad-hoc meeting of high level officials to review the implementation of the second Action Plan and to prepare an interim report for the Working Group meeting, proposing also new activities if appropriate.
- ii) The Working Group will engage, on a regular basis, in exchanges of information and practical cooperation with other BSEC Working Groups in related spheres of activity in order to provide better coordination and to create new synergies for the implementation of the second Action Plan.
- iii) The European Commission in its capacity as Observer to the BSEC shall be invited to attend the meetings of the Working Group on Science and Technology in order to exchange views and identify synergies between the second Action Plan and the EU RTD Framework Programmes and other EU instruments.

G. Duration and Revision of the Action Plan

The duration of the second Action Plan shall be 4 years. It is subject to revision by the Meetings of the Ministers responsible for Science and Technology, to be endorsed by the Council of Ministers of Foreign Affairs of the BSEC Member States.

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