Doc.: GA37/LC37/REP/11

REPORT^{*}

THE ROLE OF PARLIAMENTS IN PROVIDING LEGISLATIVE SUPPORT FOR ENHANCING SCIENTIFIC AND TECHNOLOGICAL PROGRESS

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^{*} Text considered by the Thirty-Seventh Meeting of the Legal and Political Affairs Committee in Chisinau on 12 April 2011 and adopted by the Thirty Seventh General Assembly in Kyiv on 2 July 2011.

I. INTRODUCTION

The Legal and political Affairs Committee at its Thirty Sixth Meeting in Brussels on 13 October 2010 decided to evaluate scientific and technological progress in the BSEC member states from the viewpoint of the parliamentary contribution to this process.

In this respect, the Thirty Seventh meeting of the Committee in Chisinau on 12-13 April 2011 is dedicated to the issue of "The role of parliaments in providing legislative support for enhancing scientific and technological progress" with a view to elaborate the Report and the Recommendation for the discussions at the Thirty Seventh Plenary Session of the General Assembly in Kyiv in July 2011.

The PABSEC has attributed substantial attention to the issue of development of science and technology throughout the years of the Assembly activities and has adopted respective reports and recommendations¹ emphasizing the importance of ensuring the long term sustainability of research and promotion of stronger relationships between science and innovation systems.

The Heads of State and Government underlined in the Declaration on the Occasion of the Fifteenth Anniversary Summit of 25 June 2007, that "deepening cooperation in the priority areas of common interest such as environmental protection, trade, transport, tourism, energy, telecommunications, science and technology and combating terrorism would yield tangible outcomes to improve the quality of the daily lives of peoples in the area".

To this effect, the Ministers Responsible for Science and Technology of the BSEC Member States adopted the Declaration in Sofia on 9 April 2010, which stresses that "science and technology are major assets for sustainable social and economic development and the BSEC Member States, based on their rich and long-lasting tradition, are willing to devote particular attention for the further development and strengthening of that field, both at national level and in the Organization as a whole". The Declaration entrusts the BSEC "to work towards strengthening 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".

The Report benefited from the contribution by the national delegation of Azerbaijan, Bulgaria, Georgia, Greece and Romania. In addition, the reference material has been obtained by the PABSEC International Secretariat through the related Internet sources.

- II. THE ROLE OF PARLIAMENTS IN PROVIDING LEGISLATIVE SUPPORT FOR ENHANCING SCIENTIFIC AND TECHNOLOGICAL PROGRESS
- 1. Science and technology are essential components for overall progress in the societies. Enhancement of scientific and technological progress in a wide variety of fields paves the way towards many brilliant inventions and discoveries. Endless number of investigations and innovations applied in practice nowadays make life easier and comfortable.

¹ Report and Recommendation 45/2000 on Development of Communications in the Black Sea Region; Report and Recommendation 60/2002 on Globalization: Challenges and Prospects for the PABSEC Member-States; Report and Recommendation 66/2002 on Information Society: the Role of New Technologies; Report and Recommendation 71/2003 on Black Sea Informational Alliance; Report and Recommendation 92/2006 on Strengthening the legislative framework for protection of intellectual property; Report and Recommendation 95/2007 on Cooperation in the field of high technologies among the BSEC Member States.

- 2. Science and technology advance at an amazing rate becoming the most important factor in the development of national economy in the whole world. The spread of new knowledge, products and processes derived from scientific and technological progress transforms social structures, modes of behavior and attitudes of mind. Scientific progress serves the interests of society, helps to increase the well-being of people and develops public education. The spread of the new technologies makes inroads into cultures and lifestyles. Expansion of information networks and internet enable more and more people all over the world to communicate and rapidly transmit the information. In recent years scientists have achieved great success in the development of physics, chemistry, biology, etc. The use of technology in agriculture has increased productivity. Achievements in medical research and modern health care play immense role in improving people's lives. Technological advancements have driven the developments in the different modes of transport.
- 3. Science impacts all fields of human life and growth of knowledge lead to an even greater influence on human activities. Scientific knowledge offers possibility not only of improving the conditions of life but also of radically changing it. Globalization has given rise to new patterns of networking that are changing the way in which knowledge is created, diffused and applied. Global science and technology networks and platforms facilitate expansion of scientific and technological knowledge and information.
- 4. The advancements in science and technology have both the positive and negative effects. Rapid scientific progress has raised a number of problems in the sphere of ecology, safety and security that are a matter of greater concern nowadays. Results of the scientific and technological progress may be turned both for peace or criminal and terrorist purposes. There is no doubt that unstable political climate, unresolved and protracted conflicts, declining living standards, continuous border disputes and acute security concerns deprive the region from fully benefiting from the economic cooperation process and scientific and technological progress.
- 5. Greater international cooperation in science and technology is vital to meet a broad range of global challenges related to sustainable development and enhanced safety and security. In this regard, international scientific and technological cooperation ensuring efficient and transparent mechanisms for increasing use of public-private partnerships to promote science-based innovation becomes important. Modern research generates vast quantities of highly diverse data, and it is a challenge today to manage, analyze and share these data in a way that optimizes scientific benefits, avoids duplication of effort, and takes maximum advantage of information and communication technologies.
- 6. The national parliaments of the BSEC member states place particular importance upon the review, update and modernization of the existing legislative framework and enactment of necessary legislation compatible to the international standards in the field of science and technology meeting the challenges of contemporary society. Strengthening policies to enhance awareness and public understanding of science; improving the quality of scientific teaching; encouraging mobility between the public and private research sectors and broadening opportunities to pursue scientific and technological studies; identifying and sharing good practice approaches to the development of improved methodologies for the assessment of economic and societal impacts; reviewing the effect of various forms of intellectual property protection for software on access to software-related knowledge and follow-on innovation; identifying successful policy measures for increasing participation in

scientific and technological education; reinforcing the capability to make science and technology more appealing and attractive from the early stages of education; strengthening institutional framework for the management of digital research and scientific data; promoting explicit, formal institutional rules on the responsibilities of the various parties involved in data-related activities; strengthening innovation and knowledge-generation capacities to entrench science and technology; paying due attention to national legal requirements concerning national security and privacy; promotion of sustainable development through the application of science and technology by strengthening national innovation policies and programs are among the priorities on national agenda. The respective national laws and regulations are administered and enforced by the specialized national agencies and offices with supervision of the relevant ministries.

- 7. In *Albania* the responsibilities for universities, research centers and research institutes are distributed among several ministries and the Academy of Science. The Ministry of Education and Science of Albania is responsible for strategic planning and legislative aspects of science and technology, the development of national programs, technological development and international scientific cooperation. A significant part of the Directorate of Scientific Research is devoted to bilateral scientific and technical cooperation. This includes the exchange of scientists and students, but also of documentation and information. It provides help for joint research projects and for the participation in conferences and seminars. Effort has been made to create an academic communications network and IT system in Albania, and other modern technologies are gradually being invested in. The legal framework is provided through the Law on Science; the respective governmental decisions, decisions of the Council of Scientific Policy and Technological Development and the Ministerial regulations. The priorities in science and technological development are determined in the Science, Technology and Innovation National Strategy of Albania for 2009-2015.
- 8. Armenia has a long tradition of science, technology, and education. Armenian institutions of higher education continue to modernize their structures and curricula. Successful economic development based on science and technology requires more than merely identifying research and technologies that seem to have economic potential in more mature market economies. It will require building the chains that have the capacity to finance, develop, and market those promising technologies. The handful of successes to date and the long menu of areas of potential interest for the future are encouraging, as is the resourcefulness of Armenian scientists in establishing and maintaining linkages with the international scientific community. The Law on Scientific and technical activity, public authorities and users of research results; establishes principles of formation and implementation of state policy in the sphere of scientific and technical activity. It also established legal status of the subjects of scientific and technical activity, main objectives, directions and principles of the state policy in science and technology; powers of the governing bodies in the science; legal status of scientific organizations.
- 9. The *Azerbaijan* National Academy of Sciences is a high-ranking state institution that performs science and technical development policy. The Academy of Sciences coordinates and manages all research Institutions and higher educational establishment activity. Its main objective is a development of fundamental and applied researches in the realm of natural,

technical, social and humanitarian sciences in order to generate innovative knowledge and accelerate social and economic improvements in the country. Scientific achievements made a tremendous impact on the formation of Azerbaijan democratic state. Academy activity is ramified into several scientific branches along with effective research structures. Each science division includes research and research-service institutions, purpose-oriented councils, commissions, committees, scientific Societies and relevant science editorial boards. Academy of Sciences embraces 66 establishments including 48 research institutes, 9 design and technology offices, 2 regional research centers, 4 museums, 2 observatories, 3 pilot-experimental plants and a research center "Azerbaijan National Encyclopedia". In 2009 new law on Education was enacted. By the Decree of the President of 4 May 2009 National Strategy on development of science in the Republic of Azerbaijan for 2009-2015 and the National Program on the Implementation of the National Strategy on development of science in the Republic of Azerbaijan for 2009-2015 were adopted. The Foundation for development of science is established under the President of the Republic, which issues grants with the aim to assist in realization of most topical scientific projects.

- 10. In *Bulgaria* the Ministry of Education and Science is responsible for research and development and educational policies. The National Science Fund, an autonomous agency of the Ministry, plays a leading role by financing research projects on a competitive basis, projects mostly developed through public research institutes, or in cooperation with business firms. It also supports the activities of international collaboration. The Ministry of Economy is involved in the development of the high-technology sectors. The Bulgarian Small and Medium Sized Enterprises Promotion Agency provides support to SMEs. It has been running the National Innovation Fund, established in 2005 to finance pre-market phase product development, primarily for firms collaborating with public sector research institutions.
- 11. Policy making and funded functions in *Georgia* are mainly concentrated in the Ministry of Education and Science and Georgian National Science Foundation. Actually research is performed in public universities (focus of private universities is on education rather than on research) and scientific-research institutes and in less extent in non-governmental organizations. Georgian Academy of Sciences is the advisory body and plays a leading role in setting of national research and development priorities. The continuing changes Georgia's research system encompass: optimization of the number and the profile of scientific-research institutes and their integration into the university system, elaboration of new funding models of science and technological institutes and around 20 private institutes mainly of medical profile. Scientific and technological activities are also performed by 6 accredited universities. The Law on science and technology and their development regulates the scientific and technology Zones; Law on Development of Science and Education Infrastructure; Law on Further Development of High Technologies.
- 12. Since the foundation of the academy of Athens, a lot has been done in the field of science and technology in *Greece*. Besides the academy of Athens, Greece has five big scientific research institutes. Association of Greek Chemists and Greek Mathematical Society in Athens are the two main specialized scientific research institutes. Nine colleges offer advanced scientific and technical tanning. The Ministry of Research and Technology and the Greek Research and Technology Network helps in the research and development of the communication and

Information technologies throughout Greece. The General Secretariat for Research and Technology (GSRT) of the Ministry of Development provides practical parties with more specific and in-depth information about Science and Technology in Greece. The GSRT of the Ministry of Development: supports through its programs, the research activities of both the country's scientific research institutes and those of its productive industry; promotes the transfer and dissemination of advanced technologies throughout the country; contributes to the reinforcement of the country's research manpower; promotes cooperation with other countries and international organizations on research and technology issues; establishes new institutes and technological centers; supports the dissemination of research and technology information throughout the country and internationally by means of advanced IT systems and networks; encourages activities aimed at raising awareness of the general public about research and technology issues. The Greek universities show significant research performance both in projects aiming at strengthening the competitiveness of enterprises, as well as projects addressing social issues. There are five Science and Technology Parks in Greece: Science and Technology Park of Crete, Thessaloniki Technology Park, Science and Technology Park of Epirus, Scientific Park in the city of Patra, and Technology Park of Thessaly. Innovation Relay Centers in Greece provide business services, aiming to facilitate transnational technology transfer including assistance in accessing innovation financing, organization of technology brokerage events, and expert guidance in other key issues.

- 13. In *Moldova* the reform in science began in 2004. The Code on Science and Innovation was ratified by Parliament marked a turning year in the development of science and innovation in the country. It introduced two most essential changes in the role of the Academy of Sciences which became the sole public institution of national importance in the field of science and innovation, the plenipotentiary coordinator of the scientific and innovational activities, the supreme scientific forum and scientific adviser to the public authorities. The Academy of Sciences is authorized with the Government's competence in the field of scientific research. The Agency on Innovation and Technology Transfer (AITT), created according to the Code on Science and Innovation and authorized with functions on implementing innovation and technology transfer policies and strategies, promotes the development of innovations are developed by the Government and scientific community in the person of the Academy of Sciences in accordance with the strategic directions of activity in this field.
- 14. Scientific and technological policy in *Romania* is overseen by the Ministry of Education and Research, which has responsibility over the design and implementation of research and innovation policies. The National Council for Science and Technology Policy is a high-level governmental coordination body in charge of articulating research and innovation policies with other social and economic objectives. In addition, there are several specialized agencies responsible for specific areas of intervention and advisory bodies; a number of centers or infrastructures oriented towards technology transfer have been instituted in recent years. The legislative framework includes: Decision 787/2005 on the approval to set up the Romanian Office for Science and Technology near the European Union; Government Decision No. 1449/2005 on the statute of the National authority for Scientific Research; Government Ordinance No.57/2002 on scientific research and technological development; Law no. 150/2000 on approving Government Ordinance no.62 on setting up the Management Center for Financing Higher Education and University Scientific Research. The National Strategy for

Research and Development of Romania defines the state policy aiming at achieving national interest objective in scientific field. It promotes the EU Strategic guidelines regarding the European territorial cooperation by means of implementing joint operational programmes within the EU borders (with Hungary and Bulgaria) and along the EU external borders (with Serbia, Ukraine – Moldova, Hungary – Slovakia –Ukraine, the wider Black Sea area), the trans-national cooperation operational programmes for South Eastern European Space (SEES) and the EU inter-regional cooperation programmes.

- 15. Scientific and technological organizations in *Russia* are divided into four main sectors, depending on the industry and their main functions: governmental sector organizations, which provide support to government institutions, working for the society as a whole; business enterprise sector organizations, which support companies producing goods and services for sale; higher education sector organizations engaged in highly skilled professionals training at higher education institutions; private non-profit sector organizations, including private companies which do not operate for profit. The state budget remains the biggest source of funding for Russian science. Scientific and technological progress is formulated as priority in the Science and Innovation Development Strategy of the Russian Federation. The priority science and technology areas define the general trends capable of providing new technologies and facilities. It includes information and telecommunications; nanotechnologies; rational management of nature; power engineering and energy saving; transport, aviation and space systems; safety and terrorism counteraction; prospective armaments, military and special equipment. In 2010 the President named the five priorities for modernization of Russia's economy: nuclear and information technologies, space, biomedical research and energy efficiency. The main federal decision-making bodies in the sphere of Science, technology and innovation are the Governmental Commission for High Technologies and Innovation now led by the Prime Minister, and the President-led Commission for Modernization and Technological Development. The Committee for Education and Science at State Duma submits draft federal laws to the committees, commissions and delegate associations of the State Duma, to the President of the Russian Federation, the Government of the Russian Federation and the legislative and executive bodies of the constituent entities of the Russian Federation. The Russian Federation supports scientific and technological cooperation with foreign countries on the basis of existing international agreements of the Russian Federation, international scientific programs and projects, and promotes the expansion of the scientific and technological cooperation of researchers and research organizations.
- 16. In *Serbia* the Ministry of Science and Environmental Protection has the main responsibilities regarding the formulation of scientific and technological policy, within the Law of Science. In its activities, the Ministry supports firstly basic research activities, to which the biggest share of its budget is allocated. Other areas of focus are technological development and technology transfer, international cooperation, human resources, and activities devoted to building the Information Society, with a focus on academic networking, Information technology infrastructure and e-government. The more recent interest in the development of innovation policies is reflected in the new Law of Innovation. The international cooperation activities have focused mostly on rebuilding bilateral agreements and on the participation in multilateral programs, with particular attention being given to the EU Framework Programs.
- 17. The Supreme Council for Science and Technology (SCST) is the highest policy-making body in *Turkey* chaired by the Prime Minister with the decision-making power for national science,

technology and innovation policy. SCST is composed of its permanent council members of Ministers of State, National Defense, Finance, National Education, Health, Agriculture and Rural Affairs, Industry and Trade, Energy and Natural Resources, Environment and Forest, Chairman of Council of Higher Education, Undersecretary of State Planning Organization, Undersecretaries of Treasury and Foreign Trade, Chairman of Turkish Atomic Energy Authority, President of TUBITAK and a Vice President, General Director of Turkish Radio and Television, Chairman of Union of Chambers and Commodity Exchanges of Turkey, and a member to be appointed by a university to be designated by the Council of Higher Education with other relevant stakeholders that are invited to the meetings with advisory capacity. In total, over one hundred different actors from the governmental bodies, higher education and business enterprise sectors are represented in SCST meetings. Its function is to assist the government in the determination of long-term science and technology policies; to identify the priority areas in research and development; prepare related plans and programs, to set the procedures for establishment of centers of private institutions, and monitoring and evaluating their activities; to provide coordination among sectors and institutions in programming and implementation stages. With an aim to increase technology development capability, innovation culture, and competitiveness of Turkish companies, institutions like TUBITAK, Ministry of Industry and Trade, Small and Medium Enterprises Development Organization (KOSGEB), and the Technology Development Fund of Turkey (TTGV) deploy policies that provide finance to the research and development activities. The establishment of Technology Parks in the framework of the Law on Technology Development Zones strengthens links between the private sector and the research community. Turkey attaches considerable importance to enhancing international cooperation in science and technology sphere.

- 18. Science in *Ukraine* is concentrated in scientific institutions, representing academic, field, university and industry sectors of science. The Ministry of Education and Science of Ukraine (MESU) is the central executive authority in Ukraine, governed and coordinated by the Cabinet of Ministers of Ukraine, which implements government policy in the fields of education, science and technology research and development, identifies the main directions, ensures national science and education integration into the global system. MESU launches national science and technological programs. Other ministries and state committees of Ukraine incorporate in their infrastructure a department in charge of science, technology and innovation, in particular the Ministry of Industrial Policy, Ministry of Agrarian Policy, Ministry of Health, Ministry of Economics, Ministry of Environment, Ministry of Fuel and Energy, Ministry of Transport and Communication and others. Objectives and priorities of scientific and technological development have been implemented through the system of state scientific and technical venture programs. Priority areas of science and technology development are: fundamental research into most important problems of natural sciences and humanities; new biotechnologies and methods; new computerized tools and technologies for information society; new technologies and resource saving technologies in power engineering, industry and agriculture.
- 19. The BSEC countries have a long tradition and tangible accomplishments in the fields of scientific research and technological development, yet there is a need to strengthen, stimulate and exploit the long lasting expertise and creative potential as assets for national and regional development. In most states in-depth reorganization of the research systems and infrastructure have taken place in order to accommodate the existing needs. Yet, upgrading of research

infrastructures remains an essential need in most of the BSEC member states. The cooperation between the states become rather instrumental through bilateral activities, exchange of good practices, sharing experiences, etc. that enrich development and implementation of national science and technology policies. Actions strengthening education are enhanced through involvement of competent institutions, such as the national academies, research councils and foundations active in the establishment of the knowledge-based society.

- 20. To this end, the BSEC states have concluded bilateral agreements among themselves related to development of the legislation in the field of science and technology. As an example, Albania has concluded the Science and technological cooperation agreement with Greece; Georgia has science and cooperation agreements with Greece, Bulgaria, Ukraine; Moldova has bilateral agreements with Azerbaijan, Russia and Ukraine. Ukraine has concluded the respective agreements on cooperation in science and technology with Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania and Russia.
- 21. Parallel to the development of the national system in promoting scientific and technological progress the multilateral cooperation between the Black Sea states has been enlarged in the BSEC framework. BSEC acts as a platform for dialogue, cooperation and exchange of information and experience between decision-makers and the scientific community of the region. The keen interest of the BSEC states in this sphere is proved by a number of Meetings of the Ministers Responsible for Science and Technology. The last Ministerial Meeting was held in Sofia on 9 April 2010, which adopted the Joint Declaration and the Second Action Plan on Cooperation in Science and Technology (2010-2014), which pursues the Action Plan on Cooperation in Science and Technology of 2005.
- 22. The BSEC Action Plan on Cooperation in Science and Technology (2010-2014) serves as a means of achieving the goals set forth in the 2010 Declaration of the Ministers Responsible for Science and Technology of the BSEC Member States and as a practical expression of the renewed commitment to regional cooperation in the fields of science and technology. The Action Plan reconfirms the priorities of human resources, capacity building, research infrastructures and innovation. The Action Plan envisages following policy orientations in human resources: further promotion of social role of the experts involved in science and technology for a knowledge-based sustainable development; enhancement of performance of local research personnel through a stable working environment, mobility schemes, exchange of scientists, and mutual participation in scientific events; more incentives to young researchers in order to avoid further brain-drain; training of policy makers and research administrators on the more efficient organization of national research systems. In capacity building following activities are envisaged: 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; promotion of policies and incentives for an increased participation of the private sector in the research systems of the region; implementation of evaluation procedures for research centres and institutes based on internationally accepted standards; 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; harmonization of the existing national standards and certification systems in the BSEC Member States by progressively abiding to the International Standard Organisation (ISO) norms; 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; 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, etc.; setting up an electronic database regarding the institutional profiles of research institutions from BSEC countries. In research infrastructure following initiatives are envisaged: elaboration of multinational infrastructure development projects of regional importance resulting in shared utilization of modern infrastructure, including pilot regional facilities in the member states, by pooling the resources of several participating countries or research institutions as well as international sources of funding; enlarging, strengthening and ensuring the sustainability of the interlinking of national research and education electronic networks of the member states to the European gigabit network GEANT/GEANT-2 and to other European e-infrastructures. In innovation sphere: analytical comparative assessment of the performance of innovation-related structures for the identification of best practices; 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; multilateral schemes, preferably in the BSEC regional format, for the training of specialist and managerial personnel involved in innovation structures; initiation of feasibility studies for the development of new innovation structures and identification of resources available and required to that end. The Action Plan also stresses importance of preparing MoUs to promote cooperation in the specific field of science and technology should be discussed at the level of the BSEC Working Group on Cooperation in Science and Technology.

23. The International Centre for Black Sea Studies, in close cooperation with the BSEC and its related bodies, works for promoting the principles of sustainable development, innovation, and good governance that could strengthen the area and lead to the creation of a dynamic hub with multiplying effects in the wider Black Sea region. Among its priorities are activating and enhancing human capital in knowledge networks; promoting good governance by fostering cooperation with NGOs and civil society actors; supporting involvement in Knowledge and Innovation Networks; establishing training programmes in line with the proposed new axes of priorities; presenting best practices in research and innovation; and strengthening relations with educational institutions and young researchers that will be introduced to subjects concerning the Black Sea area and that will collaborate with the ICBSS in numerous ways; promoting a policy and target-oriented framework for the region's sustainable development prospects, with a particular emphasis on trans-regional cooperation, cross-border cooperation, trade, transport, and new investments, thus making parallel use of key policies such as "green entrepreneurship", "green transportations", etc.; Moving towards a "Green Black Sea" is a new perspective, characterised by a focus on development, culture, as well as economic and social prosperity, one that goes beyond the traditional approach and makes the concept of sustainable development, innovation, and governance the driving force. The ICBSS participates in the deliberations of the BSEC decision-making, related, and subsidiary bodies, mainly in a consultative role. Upon specific mandates the ICBSS drafts policy documents (ministerial declarations, action plans, background papers), coordinates the work of ad hoc Groups of Experts and on BSEC-EU Interaction as well as on security and stability related issues. It is also actively involved in permanent BSEC Working Groups. The ICBSS regularly reports on these activities to the BSEC Council of Ministers of Foreign Affairs. As an independent research and training institution, the ICBSS exploits synergies with its institutional role and develops complementary activities, including the elaboration and publication of research papers and studies, the organization of a variety of scientific events, the management of research projects on a contract basis, as well as networking activities. The Program includes: the ICBSS Annual Conference: an international forum for focused debate between policy makers and researchers; The ICBSS Annual Lecture: an open event with expert guest speakers; The International Black Sea Symposium: an interactive learning environment for young professionals; The Black Sea Research Network: a multidisciplinary system of research institutes; The ICBSS Outreach Program: engaging leading experts and local stakeholders in debates on regional affairs; Project management: specifically with regard to EU co-funded regional projects on science and technology.

- 24. European Cooperation in the field of Scientific and Technical Research (COST) is the first and is the widest European network for the coordination of nationally funded research activities. It is based on an inter-governmental framework for cooperation agreed following a Ministerial Conference in 1971. Bulgaria, Greece, Romania, Serbia and Turkey are members to COST. Starting from a limited number of scientific domains, COST has now grown into a system for research collaboration covering 35 European states. The mission of COST is to strengthen Europe in scientific and technical research through the support of European cooperation and interaction between European researchers. It aims to maximize European synergy and added value in non-competitive and pre-normative research. The funds provided by COST support the coordination costs of the research networks, while the research is funded nationally. COST is primarily funded from a specific part of the EU RTD Framework Programs. As a precursor of advanced multidisciplinary research, COST has a very important role in building the European Research Area (ERA), anticipating and complementing the activities of the Framework Programs, acting as a "bridge" spanning the scientific communities of the whole Europe, increasing the mobility of researchers across Europe and fostering the establishment of large Framework Program projects in many key Scientific Domains such as: 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; individuals, societies, cultures and health; information and communication technologies; transport and urban development.
- 25. Coordinated efforts at national and international levels are to be strengthened in order to contribute to the advancement of scientific research and innovation; to enhance the use of existing national and international instruments and promote mutually beneficial collaboration between governments, civil society, business and industry in order to increase confidence in the application of science and technology for sustainable development.

Role of the national parliaments

26. The national parliaments, as the legitimate representatives of the people, bear constitutional responsibility to protect the electors' interests. It is their duty to add voice to the concerns and aspirations to contribute to the global processes in scientific and technological development through exchange of views and discussion on the main challenges and prospects facing particular countries and the region.

- 27. It is a crucial task of the national parliaments to oversee government action in the field of promoting scientific and technological progress with particular emphasis on enhancement of education and research in order to timely enact appropriate and adequate legislation. It is also important to further promote legal approximation of respected legislation with the EU and international standards.
- 28. Parliaments have to carefully set funding priorities in science, technology and innovation in order to promote, stimulate and improve research to meet the national priorities and strategic objectives and encourage partnerships.
- 29. Parliamentarians should also make maximum use of the available legal mechanisms to mobilize public awareness in order to make the benefits of the scientific and technological progress widely understood and supported. Popularization of science helps people to get familiarized with the benefits of science in their daily life and attract their support for scientific programs. Therefore, popularization of science should be an essential element in the formulation of science and technology policy.
- 30. Parliaments should take an active role in the ratification of international instruments pertinent to sustainable development on the basis of scientific and technological progress and to incorporate their provisions in national legislation.
- 31. The Parliamentary Assembly of the Black Sea Economic Cooperation has to provide support to the actions undertaken by the BSEC to expand multilateral cooperation in the sphere of science and technology and commend the activities of the BSEC Working Group on Science and Technology.

III. CONCLUDING REMARKS

- 32. Science and technology are probably the most debated topics in contemporary society. Science and society coevolve. Societies shape scientific and technological change that, in turn, shapes societies. Advances in technology enhance social progress and economic, political and social developments influence the role that science and technology play.
- 33. Knowledge is one of the main resources for social and economic development. In this context, science and technology, through the production of new knowledge, the training of highly qualified personnel, and its impact in the development of technological innovations, take a central role in the future competitiveness of the countries. Societies whose governments recognize the dependence of the development of successful new technologies on broadly supported basic research become economically prosperous.
- 34. Science is a multi-layered complex system. It is important that new areas in science and technology with high impacts on present and future sustainable societies, such as ICT, nanotechnology, space technologies, sustainable agriculture, biomedical technologies, biotechnology, renewable energy and clean production are promoted.
- 35. Scientific and technological progress has immediate and enormous influence on global economies and international relations. Scientific research increasingly defines material futures by identifying many potential technological opportunities and the challenges to social and governmental institutions in converting those opportunities into real-life advantages.

- 36. Strong government leadership is needed, including a long-term budgetary commitment, for upgrading the science and technology base. It is important to increase research funds for the institutes and programs.
- 37. Although the success of national efforts depends decisively on the policies undertaken by the scientific and research institutions within the national borders, bilateral cooperation also plays important supportive role. Through the exchange of information, experience and expertise the countries can efficiently deal with challenges. A well-functioning interface between the innovation and science systems is more necessary than ever to reap the economic and social benefits from public and private investments in research, ensure the vitality and quality of the science system, and improve public understanding and acceptance of science and technology and the importance of innovation.
- 38. PABSEC sees its role primarily in enhancing legislative framework and facilitation of transfer of respective international standards to the member countries in the sphere of science and technology. The PABSEC at its meetings discusses priority issues related to multilateral economic cooperation in the Black Sea region calling for fostering and strengthening the national and regional capacities. Identification of new science and technology policy choices on the basis of cooperation with relevant regional and international organizations is important.
- 39. Many of the major science and technology advances offer remarkable opportunities and challenges to social institutions. In an increasingly globalized world science and technology enterprise has to come with the assurance of political and economic stability because innovation can operate only when long-term goals can be realized. Since these opportunities have global impact, successful innovation increasingly depends on international science and technology cooperation.
- 40. The scientific and technological progress brings both the positive and negative consequences. While scientific and technological developments provide ever increasing opportunities to better the conditions of life of peoples and nations, in a number of cases they give rise to social problems, as well as threaten the safety and security of individuals.
- 41. Yet, the universal language of science and the rationality of the scientific methods have the potential to ensure that countries hold a strong position in the field of scientific and technical research for increasing cooperation and prosperity. The 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 activities promoting cooperation and development.
- 42. Despite controversy over science and technology, the advantages societies received from scientific and advancements are immeasurable. Scientific innovation offers people a chance to achieve prosperity. With each new discovery with the new technological power it brings, comes new responsibility to address global problems.