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FORTY FIFTH PLENARY SESSION OF THE PABSEC GENERAL ASSEMBLY

ECONOMIC, COMMERCIAL, TECHNOLOGICAL AND ENVIRONMENTAL AFFAIRS COMMITTEE

REPORT*

"The Role of New Technologies in the Development and Strengthening of the Information Society in the BSEC Member States"

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I. INTRODUCTION

1. Innovation in information technology (IT) has fuelled unprecedented economic gains in the last 30 years in emerging and developed markets alike. As countries and communities around the world seek to address the challenges of the current economic downturn, recent and near-term advances in technology can play an equally significant role. Innovation and economic growth require leadership from both the public and private sectors.
2. Governments can create a positive environment for IT-driven growth through policies that lead to investments in education, strategic use of IT to address societal challenges, and support for research and development (R&D). These investments and policies will not only provide short-term stimulus to local economies but also position both developed and developing economies to compete and succeed in the years ahead.
3. The information society is a new form, much more perfect, of the modern society, where the equal access to information together with a developed information and communications infrastructure contributes to a sustainable socio-economic development, to poverty decrease, to quality life improvement and to the global informational integration. The international practice demonstrates the positive impact of using the ITC in the modern society development, the expansion and the diversification of the population's access to information and high quality information services in such areas as: government, education, health, employment etc.
4. Taking into the account the role of Information Technologies in the global economy, as well as importance of the role of new technologies in the development and strengthening of information society in the BSEC Member States the 43rd Meeting of the Economic, Commercial, Technological and Environmental Affairs Committee held in Batumi on 29th September 2014 decided to consider the issue on "The Role of New Technologies in the Development and Strengthening of the Information Society in the BSEC Members States" as the main topic of the 44th Meeting of the Committee.
5. The present Report is based on the information provided by the national delegations of Azerbaijan, Bulgaria, Greece, Moldova, Romania, Russia, Serbia and Turkey, as well as the informational material obtained by the PABSEC International Secretariat from the relevant sources of the Internet and other publications.

II. NEW TECHNOLOGIES AND THEIR ROLE IN FLOURISHING THE INFORMATION SOCIETY

6. Driven by technological advancements and the acceleration of globalization, the world has quickly transformed into an information society as accompanied by a constant shrinkage. In parallel to these developments, BSEC Member States also faces a rapid evolution and change in every field. The goal of all IT projects conducted is to lend an information-oriented character to the society. Unequal and unfair access to information and communication technologies which callings as a digital divide is the biggest challenge facing today. Considering this phenomenon, the "Information Society for All" principle has been set as the key objective of the BSEC countries policies for Information Communication Technologies (ICT).
7. On the other hand, in order to manage the information society in the 21st century, a new management structure to be defined by the e-government transformation should be set up. At this point, thanks to the e-government practices, it will be possible to quickly develop solutions against the major issues of inefficiency, cumbersome composition of the state, distrust of citizens in the state, and life-ruining bureaucracy, and further to restore public confidence in the state.
8. With a view to enhancing and reinforcing the information society in BSEC member states, the following communication channels may be employed to implement e-government applications**. Web Portal:** All UN member states offer online services to their citizens. **E-mail:** E-mail is a common tool used to advise citizens and provide information in online services. **SMS:** The survey has revealed that, almost 80% of the UN member states omit the SMS channel in providing service. **Mobile Portal and Mobile Applications:** According to a survey by Ghana Open Data Initiative (http://data.gov.gh/about-us), there are 1.5 billion smart phone users worldwide, accounting for

almost 21% of the overall global population. In the light of these facts, it is argued that decision-makers should develop mobile web interfaces and mobile applications for smart device users. **Social Media:** The survey by Spain Open Data Portal (http://datos.gob.es) has revealed that, 90% of the companies listed in Fortune 500 have built their social networks as at the end of 2013. Even this survey itself shows that states should employ social media in service provision. **Kiosks:** Kiosks are often used to provide services to citizens, especially in areas where Internet is not commonly used.

9. **Public-Private Sector Partnership:** E-Government and IT projects are ideal for public-private sector partnership. The private sector can provide project finance and/or utilize its experience and competence in the field of technology for a more efficient project realization and management compared to the public sector. **Service Via Desk or Phone:** In addition to flourishing technologies, face-to-face desk service or phone service will remain to be the basic methods in service provision. This service mode will be required for citizens who cannot get adapted to new technologies or who prefer talking face-to-face.

III. INFORMATION TECHNOLOGIES AND NEW TECHNOLOGIES

10. IT industry has turned into a horizontal sector influencing all facets of the economic and social life. Growing digitalization of the life adds to dependence on IT products and services. The market fosters the emergence of new products and services in other industries, development of new and more efficient business practices, and boosting of productivity. In the IT industry; scale economy and technology-based competition are decisive factors in sharing out the added value yielded. IT industry represents the market seeing highest volumes of Research and Development (R&D) investments and venture capital.
11. While the share of IT industry in global economy was 1.5 trillion dollars in 2007, this jumped to circa 1.7 trillion dollars in 2011. This size corresponds to 2.5 % of the world economy. Hardware including communication equipment represents the biggest slice of the market distribution at 49 % followed by IT services at a slice of 33 % and package software at a slice of 18 %.
12. Due to high development costs, global package software market relying upon scale economy is dominated by global actors. The activities of local players in the package software market are limited to custom software development or to areas where proximity to customer is an essential asset. According to the UNCTAD data, the share of global IT service export in total service export has doubled over the last ten years to reach 5.7% in 2011.
13. Cloud computing brings in enhanced efficiency and user traffic in IT, and particularly allows to implement new initiatives without the need to high-volume IT investments. On the other hand, approaches to ensure identifiable and scalable cloud computing services as well as legal protection are underway. Developed countries build up a public-specific cloud service or outsource it from the private sector to migrate their public information systems to the cloud platform. Widespread use of cloud IT services in the public sector is also crucial for its synergistic role in settling the cloud IT market for SMEs. Cloud IT services represents the market that is expected to display the highest momentum of development in global IT services. Marking a size of 40 billion dollars in 2012, the market is expected to score 98 billion dollars by 2016 along with an average annual growth of 24 percent.
14. It is expected to see a shift of social life to digitization, and growth of the game market along with new-generation mobile devices as accompanied by growing market shares of online console games, mobile/tablet game and social gaming. Social and mobile games represent marketplaces with a low barrier to market penetration, and individual developers besides large-scale companies contribute to this market.
15. Scoring an annual growth of 48 percent during the 2008-2011 periods in parallel to the increase in the use of smart devices, the mobile applications market is estimated to maintain its roaring growth in the following period, with mobile applications accounting for the half of consumer software expenditures by 2016. Mobile application market also offers a platform that is increasingly becoming important for the advertising and e-commerce industries as well.

16. In the upcoming period of 10 years, data volume in digital media is expected to grow by 44 folds. Such large volume of data hosts a significant potential in terms of efficiency, cost, services delivery and product development. Indeed, OECD describes innovation based on big data as one of the new sources of growth. The big data market is expected to score an annual growth of almost 60 percent in coming years to reach a level of 53.4 billion dollars by 2016. In particular, demand to non-relational database systems as well as business intelligence and data analytics applications will grow. Developed countries are in search for solutions to qualified human resource required by big data volumes in education and employment policies, and reserve significant resources to R&D programs in this area.
17. The need to establish and restore trust, security and privacy in the Internet environment, and increasingly growing cyber security threats elevate the volume of resources allocated to this area and trigger new technologies, processes and business models. An increasing number of providers in the field of cyber security offer new products and services on distinctive areas such as mobile risk management, vulnerability check, digital identity and authorization management. In addition, new actors emerge in the field to offer services of controlling and beneficially organizing digital data of entities. Global expenditures for information security at the level of 38.3 billion dollars in 2012 are estimated to exceed 49 billion dollars in 2015.
18. ICT has been preserving its market share of 35-40 percent in overall patents applications over the last ten years. ICT market outdistances other markets also in terms of the volume of resources allocated to R&D efforts seeing a remarkable investment size of almost 300 billion dollars, representing nearly one fifth of the overall private sector R&D investments around the globe.

IV. KEY ORİENTATİONS DRİVEN BY INFORMATİON AND COMMUNİCATİON TECHNOLOGİES

19. Uses of IT in various fields and convergent technologies have brought to the forefront innovative solutions based on these technologies. ICT has a key role in developing solutions against major issues in the field of urban life, environment, education, healthcare, energy, etc., offering new services in a citizen-oriented approach, and in the process of transformation into an information-based low-carbon economy. Innovative solutions offered in these fields will constitute services not limited to a particular technology but built upon a combination of many advanced technologies. Another major phenomenon coming into prominence in the subsequent period is the qualified use of the large volume of digital data and facilitated access to such high-quality data produced.
20. Of the world population of around 7 billion people today, 52 percent lives in urban areas. Such rate of urbanization worldwide is in an upward tendency. Such rapid urbanization leads to major challenges in the high-quality and sustainable provision of major services such as housing, infrastructure, transport, education, healthcare and security. Developed countries implement smart city applications that facilitate the provision and monitoring of a wide range of services in cities, optimize such services and allow making decisions based on real-time information.
21. The living laboratory approach where the needs of citizens are determined through more effective channels, tailored ICT products and services are developed based on these needs and actually tested in real life is widely used in smart city applications. Countries collaborate in an attempt to exchange know-how and experiences on living laboratory practices. For example the European Network of Living Labs (Ekol) was established for this purpose in 2006.
22. Smart cities yield significant gains in environmental field as well. Also EUROCITIES, hosting major European cities as members, highlights the emphasis of the most liveable environment with least energy use for smart cities. In particular, smart electricity grids and smart buildings constitute major developments in this area. Global greenhouse gas emissions are estimated to rise by around 30 % during the 2010-2020 periods. As of 2012, global carbon emissions of the ICT market are estimated to account for 2-3 % of the overall global total, and such ratio progressively rises in the face of ICT getting more widely used. Expansion in the data volume and widespread use of cloud computing applications has augmented the demand to data centres. The share of data centres in total carbon emissions of the ICT market is expected to jump to 22 % in 2020 from 13 % in 2007.

23. Country objectives and legislation enactments in this field as a reflection of international trends on greenhouse gas emission direct companies towards ICT-supported solutions in optimizing their manufacturing processes and enhancing energy efficiency. Green IT stands as a key sector in combating climate change and elevating energy efficiency. According to a study by the Global e-Sustainability Initiative in 2008, IT may help to reduce global greenhouse gas emissions originating from all markets primarily including transport, building and energy by as high as 15 %. Energy efficiency to be brought by IT in all markets is estimated to yield a saving of almost 600 billion Euro by 2020. In addition, campaigns on the manufacturing of ICT products in an environment-friendly manner and minimizing adverse environmental impacts of economically-expired e-wastes come in prominence.
24. Another major role of IT as far as energy efficiency is concerned is the inclusion of energy derived from renewable sources into the power grid. Smart grid applications make a significant contribution to the process of including into the grid the scattered and intermittent energy derived from such sources in a planned and sustainable approach. Developed countries devise smart applications for efficient, continuous, reliable and high-quality utility services such as electricity, water and natural gas. EU has allocated a total resource of 5.5 billion Euros for the implementation of 300 smart applications for utility grids during the 2003-2012 periods.
25. In parallel to the rapidly growing population and increase in average life expectancy, countries face growing healthcare expenditures. While the global ratio of healthcare expenditures to GDP was 8.8 % in 1995, it has jumped to 10.4 % in 2010. And this is 17.2 % for North American in 2010. E-healthcare services particularly aimed at regulating growing healthcare expenditures, enhancing efficiency in healthcare services, making decisions based on data and analyses, and optimizing the quality and scope of services offered to citizens are perceived as a major priority around the globe.
26. Registering and exchanging healthcare records in developed countries has led to major developments in the field of tele medicine. With a view to cross-country sharing of electronic healthcare records and electronic prescriptions, the Pass Project hosting 23 European countries including also some BSEC Members State is being implemented. Tele-medicine practices offer valuable opportunities for cases where remote follow-up of chronic patients, providing healthcare services to low population regions and monitoring such services are costly.
27. The evolution of mobile technologies also transforms the healthcare trends. Patient data obtained from mobile devices are converted into electronic medical records so that healthcare services can be provided more efficiently at lower costs. During the 2010-2012 periods, the mobile health applications market grew by 13 folds. 30 percent of smart phone users are expected to use the mobile health application in 2015.
28. And by 2020, 50 billion devices are estimated to function in an interconnected network. Integration of sensors and latest chip technologies into many living and non-living entities in daily life, and communication between such devices (machine to machine communication) redefine the elements around us as a component of a living information system. Called as the Internet of Things, this framework offers valuable opportunities in the field of data analysis and automation. In data analysis, spatial and temporal tracking of an object or data, and sensor-based decision support systems are in the foreground. For example, through the cell phone signal and GPS data from vehicles, areas with highest human traffic can be monitored in real time, and business decisions can be made based on these data.
29. One important use of IT is disaster management. In various major areas such as pre-disaster planning, early warning systems, post-disaster damage assessment and organization of aid, big data applications based on sensors and mobile technologies, and GIS infrastructures are widely employed. In Japan, a disaster early-warning system based on satellite communications and sensors has been built; and accordingly fire prevention, information and evacuation mechanisms activated shortly before disasters such as earthquakes and tsunami have been developed. Initiatives to build up an effective management mechanism that provides immediate control at the time of a disaster are in progress around the globe with emphasis on efficient information sharing during and after the disaster.

V. CYBER SECURITY

30. Transformation into an information society and increase of the use of Internet has attached a considerably higher importance to information security and cyber security. In this respect, initiatives on this area have also been accelerated. In parallel, domestic actions have been initiated to take measures for 1) the protection of all services, operations and data - provided by public agencies via information technologies - and all systems employed for delivering the same, and 2) for the protection of confidentiality; and further to set up principles and procedures that should be satisfied by real and legal entities involved in the operation of critical IT infrastructures. To this end, strategy paper and action plans are elaborated, and provisions formulated to prevent cybercrime are enforced.
31. International goodwill agreements such as the memorandum of understanding on "Cooperation to Combat Cybercrime" or "Cyber Non-Aggression Convention" between BSEC member states are expected to play an active role in reducing the cybercrime. Exchanging with member states the domestic policies formulated, implemented and improved for the protection of countries against cybercrime, as well as sharing experiences through regular meetings in consideration of lessons learned, delivering trainings mutually and performing drills would be helpful in this process.
32. Nowadays the topic of information technology is inevitably associated with information security. On the one hand, computers have invaded and continue to permeate all spheres of human life. On the other hand, they can be a powerful weapon in the hands of hackers and terrorists. Their victims are usually financial institutions and businesses, but they can also target governmental institutions. Regardless of the affected areas – finance, business, and governmental institutions – the role and responsibility of the state to combat cybercrime has been growing tremendously. The fight is mainly at strategic and operational level.
33. Experts recognize that today in order to fight against cyberterrorism it is necessary to unite efforts of the whole international community and to create a Single Information Space for Cybersecurity.
34. It is important to elaborate international legal mechanisms to protect the information space of the BSEC Member States, as well as the development of effective means of informational influence of the BSEC countries on world public opinion.

VI. SITUATION IN THE BSEC MEMBER STATES

ARMENIA

35. The IT sphere has been recognized as one of the priority sectors of the Armenian economy already in 2000. The government of Armenia approved the concept of development of the IT sector in the Republic of Armenia in 2008. Today the IT sphere is one of the fastest growing sectors of the Armenian economy and paves the way towards the growth of the economy of the country, the increase of the level of competitiveness and productivity, creation of jobs that provide greater added value, as well as the increase of the country's rating. This sphere is highly profitable and attracts the foreign investments. The Government of the Republic of Armenia is ready to promote further development of the IT sector in Armenia.
36. According to the data of 1 January 2014 there are 380 companies operating in the field of telecommunications and information technologies out of which 225 are local companies and 155 are branches of foreign companies. The annual turnover of the IT industry is about 379.1 million USD out of which 133.4 million USD is exported. This figure includes programming and IT-services, as well as Internet services, with the exception of mobile Internet (figure does not include mobile services). The total number of specialists busy in this area is 11000. This figure includes programmists, IT professionals and internet-service providers, as well as technical and managerial personnel in the companies of telecommunication sphere (not including employees of «call-centers» and service personnel).
37. In Armenia operate such major transnational IT companies as "Synopsys", "Mentor Graphics", "National Instruments", "Microsoft", "VM Ware", "D-Link", etc. At the same time, the negotiations continue to attract other multinational companies in Armenia and to implement joint programs with them. In particular, in 2013 memorandums of understanding were signed with the multinational

companies like “IBM”, “GFI” and “Oracle”. At present the work continues to implement the programs envisaged by the above-mentioned memorandums. The preparatory work has already been started for the establishment of the newest IBM technologies and solutions center in Armenia.

38. Today there are 9 research centers and laboratories in Armenia operating in the field of ICT on the basis of partnership between the public and private sector, including Microsoft Innovation Center, Armenian-Indian Center for Excellence in the field of information and communication technologies, regional laboratory of mobile application development «mLabSCA», Armenian National Engineering Laboratories (ANEL) that provide opportunity to transfer new knowledge of technologies and train new skilled personnel.
39. The Government of the Republic of Armenia has developed and approved a legislative package aiming at the state support to the IT sector in Armenia in order to promote start-up companies in the IT sphere. Legislative package envisages that a new IT company gets the privilege in terms of taxation by paying 0 % income tax and will have to pay only 10 % of profit tax. It should be noted that the above tax incentives are quite effective in many other countries and do stimulate the development of the IT sector.
40. Starting with July 2011 the Republic of Armenia became a country-coordinator of the Working Group on information and communication technologies in the framework of the Black Sea Economic Cooperation. The meetings of the above mentioned Working Group were organized on 5 October 2012 in Yerevan and on 8 November 2014 at the Technology Center in Gyumri attended by the representatives of the BSEC member states, the BSEC Permanent International Secretariat, public-private sector in Armenia and journalists. The aim of these meetings was to promote cooperation among the BSEC member states countries through use of information technologies and to consider the possibility of elaboration and implementation of bilateral and multilateral projects.
41. In 2010 the Government of Armenia has approved the concept on formation of electronic society in Armenia in the framework of which the resprctive authorities have carried out activities aimed at providing computers to the population of the Republic of Armenia, increasing availability of the Internet services, introducing the e-government system in Armenia, increasing electronic services and ensuring cyber-security.
42. In 2010 the Government of the Republic of Armenia has introduced e-governance portal www.e-gov.am, which provides such services as electronic application for the license, electronic registration of organizations, electronic submission of accounting reports, receiving electronic visa, getting electronic signature, submitting public notifications through the Internet, browsing the state budget information, accessing judicial information system, using the state electronic payments system and state electronic auction system for alienable property sales by the Compulsory Enforcement Service, accessing legal information system of Armenia and other services.

AZERBAIJAN

43. According to the Development Concept “Azerbaijan 2020: a look into the future” one of the main pillars of such a development are information and communication technologies (ICT). ICT as a new sector of economy with a high rate of growth play the role of a leading force in achieving comprehensive socio-economic progress. In 2003, the country adopted the “National Information and Communication Technologies Strategy for the Development of the Republic of Azerbaijan (2003-2012)” and announced a global goal - the transition to an information society. In 2005 and 2010 several state programs were approved on development of communication and information technologies in Azerbaijan, tentatively called e-Azerbaijan with the aim to ensure the implementation of practical measures for the development of ICT.
44. The necessary legal framework was established and improved in order to provide the legislative framework for the enhancement of the information society in Azerbaijan. The important laws were adopted on “Telecommunications”, “Postage”, “Electronic signature and electronic documentation”, “Electronic Commerce”, “Obtaining Information”, “Personal Data”, “Biometric Information” along with other laws and regulations. Thanks to the work done during the past 10 years the ICT sector has become the leading and fastest growing sector of the economy. During this period of time the volume of the sector has been doubling every three years with an average annual growth rate of

almost 20-25 % overcoming 2.0 billion USD. The investments in this sector totalled to almost 3.0 billion USD, 80% of which was invested by local business structures and foreign investors. The Programme for the Development of Broadband Internet has been elaborated with the aim to develop national Internet infrastructure, to improve access to high speed Internet and to enhance the use of e-services in Azerbaijan.

45. On 8 February 2013 the first telecommunications satellite of Azerbaijan "Azerspace-1" was launched to orbit, which is one of the highest technical achievements of the country in the period of independence. Today satellite "Azerspace-1" successfully provides telecommunication services, Internet services, television and radio broadcasting services to the countries of Europe, Middle East, Central Asia and Africa.
46. The country is attributing serious attention to the formation of "electronic government". Simplification and transparency of the relations between officers and citizens with the use of ICT resources paves the way towards elimination of bureaucratic barriers. The necessary infrastructures for "electronic government" have been established including already operational portal of "Electronic Government". Information is exchanged with the population through the special infrastructure between the information systems of the government bodies and other e-services are also provided.
47. The State Agency for Citizens' Services and Social Innovation under the President of Azerbaijan and "ASAN service" centres (meaning in translation "easy service") subordinated to the State Agency were established with the aim to provide high quality services to all the citizens through more convenient, accessible single space using modern innovations. The State Register of Public Information Resources and Personal Data Information Systems were set up in accordance with the respective decrees and orders of the President of Azerbaijan with the view to regulate information resources and systems.
48. The State Agency for Special Communications and Information Security of the Special State Protection Service of the Republic of Azerbaijan and the Electronic Safety Centre under the Ministry of Communications and High Technologies of the Republic of Azerbaijan are operating in the country in order to improve activities in the respective areas as well as to ensure protection of information resources and systems of state bodies from possible threats, to increase nationwide awareness and education in the sphere of cyber security. Azerbaijan acceded to the International Conventions "On cybercrime" and "For the Protection of Individuals with regard to Automatic Processing of Personal Data" and improved the legislative framework in conformity with the requirements of these conventions.
49. The State Fund for Development of Information Technology and the High Tech Park were set up under the Ministry of Communications and High Technologies with the aim to develop in the country the competitive innovative ICT industry with high export potential. These new structures provide financial and organizational support for strengthening the economy, attraction of foreign investment and promotion of the production of ICT products in the country, organization of activities of new companies and innovative start-ups.
50. Azerbaijan is the initiator and an active implementing partner of many regional projects. Implementation of the "Trans-Eurasian Information Super Highway" project (TASIM), which was endorsed by the UN General Assembly resolutions (in 2009, 2012 and 2013), as well as the utilization of the possibilities of the Europe–Persia Express Gateway (EPEG), to which Azerbaijan is the party, will contribute to the development of appropriate telecommunications infrastructure that is necessary to prevent the "digital divide" in the wider Eurasian region.
51. Today important role is attributed to the high technologies in the country with a view to ensure the transition from the traditional economy to the new type economy - knowledge economy. With the aim to implement comprehensive and consistent measures for the development of this sphere the Ministry of Communications and High Technologies was created on the basis of the Ministry of Communications and Information Technology by the Order of the President of the Republic of Azerbaijan of 7 March 2014. The main task facing the new ministry is to develop and enhance the sector of competitive and export-oriented high-technologies. On 2 April 2014 the President of the Republic of Azerbaijan signed the Order on approving the National Strategy for Information Society

Development in the Republic of Azerbaijan for 2014-2020. With the adoption of the new National Strategy the next stage of the development of information society in Azerbaijan has started.

52. The main objective of the National Strategy is the further development of the information society in the country, efficient use of its creative possibilities for the development of citizens, society and state, sustainable progress of the country, the full application of ICT in public administration as well as their development as an economic sector, giving impetus to the development of socio-economic and cultural spheres.

BULGARIA

53. In recent years, Bulgaria has made considerable progress in the development and use of ICT. The number of the persons and companies using online services for personal or business purposes in order to obtain information and to interact with public institutions engaged in e-commerce has grown. Although slow the gradual introduction of the so-called information society expands the possibilities and conditions for development, overcomes the barriers to access to information and significantly enhances the mechanisms of integration and social inclusion of all socially and economically active groups.
54. The lines of action for development and broad application and use of ICT are enshrined in a number of strategic planning programming documents. The main ones are: National Programme "Digital Bulgaria 2015" defines the parameters (key actions, responsible institutions, deadlines, and budget) of the Information Society development in Bulgaria; National strategy for development of broadband access 2012 -2015 is updated and supplemented with a time horizon extended to 2020 and thematically focused to ensure provision of fast and ultra-fast Internet for all citizens and a National strategy for development of broadband access in line with the recommendations of the European Commission which covers and systematizes all activities, responsible institutions, indicative deadlines, financial resources and the appropriate instruments to guarantee the successful implementation of the strategic goals; National Broadband Infrastructure Plan for Next Generation Access. Models of sustainable investments and economic justification (NGA);
55. E-Governance Development Strategy 2014 - 2020 in Bulgaria, aimed at transforming the administration from a fragmented and bureaucratic structure into an integrated, efficient single system through the provision of modern high-quality public electronic services to citizens and businesses. Its main purpose is to outline the framework for all current and new activities in the field of E-Governance. The National Research Development Strategy 2020 defines ICT as one of the three priorities supporting research and technological development. The other two are health related technologies and eco and energy-saving technologies and also include ICT.
56. An Innovation Strategy for Smart Specialisation in Bulgaria (2014 – 2020) has been developed and awaits approval by the Council of Ministers focusing specifically on the measures to achieve smart, sustainable and inclusive digital growth based on the development of a balanced innovative ecosystem in the sphere of ICT using the ICT infrastructure for research and innovation – technology parks, business incubators, clusters, competence centres, e-infrastructure, etc., support for the growth of the ICT sector and support for the widespread deployment of ICT in priority industrial sectors, particularly in small and medium enterprises.
57. The Strategy for efficient application of information and communication technologies in education and science in Republic of Bulgaria (2014-2020) sets the main goals, objectives, and action lines for computerising the system of education and science in the Republic of Bulgaria by 2020 and establishes the basic principles, approaches and conditions for the successful realization of the computerising process.
58. Significant progress has been reported over the past four years in the development of e-governance however there are still many obstacles to the realization of its full potential. The Integrated Electronic Communication Network for the state administration and for the needs of national security (IECN) was created in 2012 which is the basic infrastructure of e-Governance. It was developed as a backbone network between the regional administrations which enables the transfer of information flows at high speeds and with guaranteed reliability.

59. ICT infrastructure for education and innovation is proposed by the Bulgarian Research and Education Network (BREN) to provide access for universities and research organizations to European and international research networks, the National Centre for Supercomputing Applications (NCSA) that is included in the Roadmap for national research infrastructure and needs investment support for further modernization and integration with European research infrastructures that act as platforms for the development of innovative companies and to promote the process of commercialization of research work. There are established ICT clusters: Foundation "Information and Communication Technologies Cluster", "Plovdiv ICT Cluster", and cluster "Mechatronics and Automation", Blagoevgrad.
60. The issues of cybersecurity in Bulgaria are governed primarily by the E-Governance Act. The act regulates the activity of administrative bodies when working with electronic documents, providing administrative services and exchanging electronic documents between administrative bodies. It also regulates the requirements to network and information security within the information systems of the administrative bodies and designates the state body responsible for the development and implementation of the policy in the field of network and information security.
61. The Ordinance on the general requirements to the interoperability and information security to the E-Governance Act includes sections that cover the organization of network and information security, the policies for network and information security, the protection against malware, the management of incidents in information security, etc. Articles related to network and information security are also included in the Law on Electronic Communications. They oblige the operators providing electronic communications to report to the national regulatory authority (Communications Regulation Commission) any incidents in the network and information security.
62. The current Bulgarian legislation in the field of ICT covers a number of legal acts, some of the more important are: Electronic Communications Act, E-Governance Act, Electronic Document and Electronic Signature Act, the special Commercial Register Act, E-Commerce Act, Protection of Personal Data Act and others, as well as separate provisions in specialized acts. There are many detailed regulations in the field of ICT. Most of them are harmonized with the current legal European framework.

GEORGIA

63. The Government of Georgia highlighted the importance of Innovation and Technology Development for economic growth; knowledge based economy was named as a driven machine of country development and advancement in the field of information and communication technologies was represents one of the top priorities of the country. The priorities have been defined in long-term governmental program "For Strong, Democratic and United Georgia" as well as in "Georgia 2020".
64. In order accelerate the process of obtaining leading position in Global indexes; build knowledge and innovation based economy; increase the export of intellectual property products, innovation and technology; increase the usage of local inventions and innovations; become regional ICT and innovation hub and provide high speed internet access throughout country – Legal Entity of Public Law (LEPL) Georgia's Innovation and Technology Agency (GITA) was established under Ministry of Economy.
65. GITA is contributing to create innovative ecosystem in the country by i) enhancing legal framework for innovation and technology, ii) creating infrastructure for innovation and iii) supporting innovation commercialization process.
66. In the field of new technology and main directions, GITA created infrastructure for innovation with high technology equipment. FabLabs – innovation enterprise laboratories have been created equipped with 3D printers, laser-cutters, printed circuit board printing micro-electronic tools and components, etc. At this moment there are 2 FabLabs with the direction of engineering and design. ILabs (innovation laboratories) – were also created with the direction of Game Development, Computer Graphics and Mobile Application, with close cooperation with private sector. The Labs are also equipped with high technology and soft in order to create demand oriented products. It's planned to expand and create more FabLabs, ILabs throughout the country with potential directions of the region.

67. In regard to the innovation commercialization, GITA has funded the innovative projects supporting the technology development. There were no fields pre-defined, the grants were open for everyone. Most of the won projects were in the field of agriculture, ICT, biotechnology, engineering, design.
68. GITA is also creating community innovation centres in the regions, to cover the whole country and raise awareness in the community. The centres will be equipped with computers and high technology based on demand. It will also have the co-working and maker spaces to build the idea by the high technology and sell on market. The Government of Georgia is strongly supporting the field development and expands the activities in this direction.

GREECE

69. In Greece, efforts to mobilise the key economic actors through the development of research and innovation infrastructure and through financial support of research in the public and private sector, have not led to the desired convergence with Europe and to the achievement of the national target for the level of domestic expenditure on R&D. The total gross expenditure on research as a percentage of GDP increased from 0.57% in 2003 to 0.69% in 2012, while the corresponding figure for the EU-28 increased in the same period from 1.85% to 2.06%. The total amount of public research funding as a percentage of total government expenditure remained at very low levels compared with the average over Europe and with the countries with similar characteristics to Greece.
70. The start of the new 2014-2020 programming period is the right time to put the funding of research and innovation in a new perspective creating a National Strategic Framework for Research and Innovation (NSFRI). This effort aims to leverage significant private investment through increased public funding and the targeting of research and innovation policy on major challenges facing the country towards 2020. The public funding of the Partnership Agreement in the new Programming Period will mobilize the necessary resources so that all public and private research spending will rise from 0.69% of GDP in 2012 to 1.2% in 2020. To achieve this goal, the funding of business R&D should be increased respectively by 0.21% of GDP in 2012 to around 0.38% of GDP in 2020. The planning, organisation and implementation of an autonomous program of this magnitude will take place from the GSRT in cooperation with the Regions and the Ministry of Development that coordinates the programs of the new NSRF.
71. The long term challenge in Greece is to set the knowledge triangle (Education, Research and Innovation) as major priority in order to overcome the current economic crisis, address societal challenges and contribute to the restructuring of the Greek economy. The above challenges will be addressed through three pillars of intervention: 1) Development based on Knowledge and Specialisation; 2) Societal Challenges; 3) Excellence in research and development of the human research potential. In the development of these areas, emphasis will be given to the integration and development of Key Enabling Technologies (KET) which can stimulate all sectors and productive activities, increasing productivity and added value.
72. Emphasis will also be given to the integration Research and Innovation infrastructures which constitute a major component of the European Research Area. The need to develop a National Strategy and a Roadmap for Research Infrastructures, given the substantial investment required for the development and maintenance of research infrastructure, is extremely critical in the new programming period 2014-2020.
73. The Research and Innovation priorities that emerge from the Innovation Platforms in cooperation with the Sectorial Working Groups of the Operational Programme for Competitiveness (EPANEK) of the Ministry of Development are: The Agro-bio-food sector; Energy production and management; Technologies and services for environmental protection and sustainable development, including eco-innovation and blue economy; Health and Pharmaceuticals; Information Technologies and Communications, both as an economic activity, as well as crosscutting technologies; Services and technologies for transport and logistics; Materials-Construction and Tourism and experience industry.
74. The goal is to address social challenges through integrated approaches that will start from the investigation and understanding of the phenomena and will end in implementation through pilot projects, demonstrations, public procurement etc. The effort will focus on nationwide projects with significant impact contributing to address the challenges.

75. Research priorities include important policy areas such as: Quality of life with emphasis on health, energy and the environment; Safe and inclusive society and Quality of public services Direct beneficiaries may be: Ministries and public agencies interested in understanding the phenomena affecting their area of policy intervention, improving policy design, testing and assessing policy options. Within this context, funding of research and innovation through innovative public procurement could be the appropriate approach; Social groups of the civil society, institutions and organisations operating in priority sectors; Research organisations (HEIs and research centres) with relevant research interests; and Companies that develop applications and products that contribute to address these challenges.
76. The new law on R&D governance includes innovations such as: The National Strategy for Science, Technology and Innovation and Action Plan is going to be approved by the Parliament; Innovation becomes a core policy area and thus the General Secretariat for Research and Technology becomes the General Secretariat for Research, Technology and Innovation. At the same time it is going to play a central role by coordinating research and innovation policy across Ministries; Regional Scientific Councils, acting as advisory bodies to the GSRTI, are established at the Regions, promoting and coordinating regional initiatives for R&D and innovation; Research and Innovation policy is assessed within the context of the Innovation Union; and etc.

MOLDOVA

77. In the recent years, the sector of information and communication technology (ICT) has undergone a rapid development and has achieved a major economic importance for the Republic of Moldova, with an amount of 7,7 billion lei in 2013 and a share of about 8% to the Gross Domestic Product (GDP). Moreover, it has maintained its growth pace at an average of 5% per year, even during the economic crisis.
78. On account of competitive advantages related to the geographical position, and the cultural proximity to the European Union and the Commonwealth of Independent States, the creative multilingual human capital, the Government's incentives for the IT industry, as well as the enlargement of the domestic ICT market, in the last six years, the IT industry has scored a number of successes. Among them need to mention a fourfold increase in the export of software in the period between 2007 and 2013 (from 14, 27 million US Dollars to 62, 52 million US Dollars); The increase in Government's IT investments, which, in 2013, amounted to 17, 4%, that is about 232, 78 mil. lei of the total IT allocations. This increase is also due to the intensification of the implementation of the electronic governance projects; and etc. The main export destinations of domestic IT companies were the UK, the USA, France, Germany and Romania.
79. The telecommunication infrastructure, which is one of the fundamental pillars for the development of ICT, has developed and extended with the latest access networks and accessible connectivity. Currently, the optical fiber networks cover 90 % of the country's localities and the mobile telephony covers 99% of the country's territory, reaching a penetration level of 126%. Prices are decreasing and match to those in European countries, Moldova occupying the 5th place in the world in the ranking of the lowest prices for Fixed Broadband.
80. Concerning the protection of the society against cyber offences, BSEC member states cooperate relying on the Convention of the Council of Europe of 23 November 2001 on cybercrime. At the same time, the National Strategy for the development of the information society "Moldova Digitală 2020" provides for creating conditions to enhance security and safety in the digital space. The strategy is the first policy document targeting directly the protection of society against cyber offenses in the context of the EU Convention on combating cybercrimes.
81. Considering the fact that the information and communications technology has been recognized by the Government as a priority area for the future of the country which could become the accelerator of the economic and social development as well as for the aspirations for the European integration of the RM, being located in immediate neighbourhood of the European Union, the MITC is consolidating its efforts in order to create a legal and regulatory framework in the ICT area aligned with the European Union one.
82. In this respect, a number of laws, policies and strategies have been drafted and promoted in order to develop the informational society and to implement the measures allowing every citizen to

beneficiate of convenient services, as well as many other relevant benefits. One of the main documents is the National Strategy for Development of Information Society "Digital Moldova 2020" which aims to provide a systemic and predictable development of the country, being based on the principles presented in the "Digital Agenda for Europe 2020", which aims to create favourable conditions for the development and broadly use of the ICT potential by the public institutions, business area and citizens with the minimum state intervention, but with maximum effect, focusing its efforts on three areas/ pillars: 1. Infrastructure and access; 2. Digital content and electronic services; 3. Capacities and use.

83. The actual regulatory framework at the national level in the electronic communications and postal sector represents: Law on electronic communications; Law establishes the basic activity rules and conditions in the civil electronic communications area, general framework of the policy and strategy area development, as well as the regulatory framework and etc.
84. The policy of Information Society building in the Republic of Moldova is an integral part of state policy and contains provisions on the strategic objectives, the state support in the development of the information and communications infrastructure, the efficiency of the government activity, providing free and linguistic diversity, preparing people to life in the informational society.

ROMANIA

85. The main aim of integrating digital technologies in Romanian economy and society is to foster innovation and economic growth while improving the quality of daily life of citizens and enterprises. The Government of Romania adopted in 2014 the National Strategy on Digital Agenda for Romania 2014-2020 targeting directly the ICT sector, with the aim to contribute to the economic growth and to increase competitiveness in Romania, both by direct action and support to develop effective Romanian ICT and through indirect actions, such as increasing efficiency and reducing public sector costs in Romania, improving private sector productivity by reducing administrative barriers in relation to the State, improving the competitiveness of labor force in Romania and beyond.
86. The National Strategy on Digital Agenda for Romania was developed in line with the seven pillars of the Digital Agenda for Europe 2020: 1.Digital Single Market – enables the free flow of online services and entertainment across national borders; 2. Interoperability & Standards – allows seamless integration of devices, applications, data and services that need to interact across borders; 3. Trust & Security – increases the trust of web users in electronic services and online transactions in order to boost consumption of ICT services; 4. Fast and ultra-fast Internet Access – targets investments for broadband infrastructure in order to take advantage of new technologies and services; 5. Research and Innovation – stimulates adequate funding for increasing the competitive edge of innovation and research; 6. Enhancing digital literacy, skills and inclusion – bridges the digital divide for all consumers in order to benefit equally and fully from the advantages of ICT services; and 7. ICT-Enabled benefits for EU Society - focuses on ICT's capability to reduce energy consumption, support ageing citizens' lives, revolutionizes health services and deliver better public services
87. The underpinning principle of Romania's Strategy is to create a competitive environment which encourages and attracts honest tax-paying citizens and businesses, which in turn is the paramount measure of a country's success and sustainable long-term growth. This strategy plays a particularly important role in identifying and establishing priorities for the future public policies, national programs and projects to be financed by Romania from public funds during 2014 / 2020 in the field of ICT. Targeted and prioritized investments in ICT are essential in meeting the specific targets set by Digital Agenda for Europe 2020, and in turn is the main lever for converging to the Europe 2020 strategic targets. According to the strategy, the total investment in the ICT field will reach approximately 2.4 billion Euros in Romania until 2020, while the positive impact of the Gross Domestic Product will be of 13%.
88. Romania has adapted to the current context the 7 pillars forming the basis of the Digital Agenda for Europe 2020 and has defined the following 4 major fields of action to be pursued as an ambitious program that will drive the economic growth and increased competitiveness. Each one of these fields of actions is supported by operational objectives with specific targets.
89. Field of actions: 1.E-Government, Interoperability, Cyber Security, Cloud Computing, Open Data, Big Data and Social Media – reforming the way in which the Government works, shares information,

engages citizens and delivers services to external and internal clients, to the benefit of both Government and the clients that they serve; 2. ICT in Education, Health, Culture and eInclusion - investing in people's knowledge and skills in order to promote development & growth; 3. E-Commerce, Research & Development and Innovation in ICT –improve the existing framework for electronic commerce, which provides legal certainty for business and consumers alike, and invest in innovation; 4. Broadband and Digital Services Infrastructure – broadband has, through the ICT implications on economy and its growth, an important role for the development of Romania, both in purely economic terms, but also in terms of improving the degree of social inclusion.

90. These programs are aimed to create the necessary infrastructure for the development of the digital economy and for turning on several levels: legislation, procedural changes, innovation, behavioral changes, etc. For each field of action, lines of actions have been drafted for implementation. They comprise the context, the stakeholders and the responsible actors, the dependencies, the actions and the timelines.
91. Romania is coordinating its own activities at national level in order to ensure cyber security in accordance with the procedures initiated at EU and NATO level. Romania's Cyber Security Strategy adopted in 2013 sets out the objectives, principles and main directions of action for understanding, preventing and deterring threats, vulnerabilities and cyber security risks. The strategy promotes Romania's interests, values and national objectives in cyberspace.

RUSSIA

92. With the aim to achieve the goals of the State Program "Information Society (2011-2020)" in the Russian Federation certain progress has been achieved in the period of its implementation. In the 2014 Global Information Technology Report of the World Economic Forum on the development of the information society in the world Russia has been given the 50th place. In the ranking of the countries according to the level of enhancing e-government in the United Nations E-Government Survey 2014 Russia has been given the 27th place. As for other indicators, according to the level of providing online services Russia went 10 positions up within one year (27th place), and according to the level of infrastructure development went 3 position down (33rd place).
93. The main Russian IT project of the past years is the shift to providing public services in electronic format. At present, 35 % of the country's population uses the public services in electronic format. It is expected that by 2018 the proportion of citizens using public services in electronic format will reach 70 %. In 2015 90 % of services have to be provided with the principle of "one window" while in 2018 90 % of the citizens have to be fully satisfied with the quality of the public services.
94. Systematic work is undertaken regarding the improvement of the quality and accessibility of public and municipal services in electronic format and of the possibilities to use them on the basis of the "one window" principle, thus ensuring interagency electronic interaction, increase in openness of government structures and participation of citizens in the decision-making process ("Open Government"), as well as improvement of the efficiency of spending of budget resources for information and communication technologies (ICT) in the government bodies.
95. The Council for Regional Informatization was established in 2013 with the aim to coordinate the activities and to provide methodological assistance to the government bodies of the constituent entities of the Russian Federation in the sphere of fostering the information society development, as well as improving the quality of life of citizens and the environment for leading the entrepreneurial activities. The Regional Informatization Concept defines the basic goals and spheres of the activities for the use of information and communication technologies in the government bodies of the constituent entities of the Russian Federation for the period until 2018, as well as the organizational model for managing such activities.
96. In the framework of the implementation of the Development of the Information Technology Industry Action Plan (Roadmap) until 2018 the attention of the Government will be concentrated upon four key areas. Among them are: development of research and development in information technology and development and improvement of infrastructure of the IT industry, also including establishment of techno parks and ensuring growth of the project capacity.
97. To solve the problem of "digital divide", a reform of the Fund of Universal Communication Services (UCS) is under way. Respective changes to the legislation were introduced in February 2014 aiming

at reforming the system of universal services and directed towards providing equal access to modern infrastructure of universal communications services to the population of the country.

98. In Russia, the necessary work is carried out to increase the level of protection of information systems of the strategic and critically important facilities in the framework of combating cyber threats, in conformity with the Decree of the President of the Russian Federation of 15.01.2013, № 31s "On setting up a national system to identify, prevent and recover from computer attacks on information resources of the Russian Federation".
99. The basic documents in the field of enhancement of information society in the Russian Federation are: Strategy for Developing Information Society in the Russian Federation, purpose of which is to set up and enhance information society, to improve the system of governance based on the use of information technologies; State Program of the Russian Federation "Information Society (2011 - 2020 years)" aimed at improving the quality of life of citizens through the use of information and communication technologies; etc. Legal relations in the field of development of information technology are determined by the basic Federal Law "On Information, Information Technologies and Information Protection".
100. Following the adoption of the Federal Law "On the Provision of Access of Information on the Activities of Courts in the Russian Federation", for the first time the basic means of providing access to the information on the activities of courts were provided at the legislative level.
101. The Government of Russia approved the State Program "The Establishment of Techno Parks in the Sphere of High Technologies in the Russian Federation", which is designed to combine high-tech enterprise sectors of the Russian economy, including sectors of nano-, bio-, information and other technologies, scientific organizations, educational establishments, which will ensure territorial concentration of financial and intellectual resources for acceleration of economic development.

SERBIA

102. In the Republic of Serbia activities undertaken in order to develop Information Society target priorities in the following fields: Electronic communication, with the following priorities set: open broadband accessibility, digital broadcast of television and radio programmes and digital dividend, communication infrastructure of the public sector; E-administration, e-health care and e-judiciary, with the following priorities: electronic identity in public sector services, ICT application in the administrative bodies and by public authorities holders, ICT application in the health care system, ICT application in judiciary; ICT in education, science and culture, with the following priorities: academic computer network, ICT in education, research and innovation in ICT field, digital contents; Electronic trade (e-trade), with the following priorities: removal of normative obstacles for e-trade development, electronic bills and electronic payment, boost e-business development, consumers protection in e-trade, coordination of e-trade development; ICT business sector, with the following priorities: human resources development, start-up and innovative companies development, export and cross-border outsourcing, protection of intellectual property, software and digital contents; Cyber security, with the following priorities: improvement of legal and institutional framework for cyber security, critical infrastructure protection, fight against high-tech crime, scientific-research and development work in the field of cyber security.
103. Academic Network of the Republic of Serbia – ANRES (orig. AMRES) is an institution established for building, development, advancement and management of educational and scientific and research computer network of the Republic of Serbia, which represents the information and Internet infrastructure, i.e. computer network, which provides access and Internet use to the AMRES, educational and scientific and research organizations and other service users in the Republic of Serbia.
104. The efficiency of Government and its administrative bodies has been improved by introduction of information system of the Government, commenced in 2009. The information system of the Constitutional Court was established in the similar way and it immensely contributes to faster and more effective work of the institution. European Union has financed the procurement of ICT equipment and software by IPA funds (hereinafter: e-infrastructure), amounting to 2.5 million EUR, which was delivered by the end of 2011, and it was intended for state bodies' data storage. E-

infrastructure provides use of virtualized computers which are designed for e- administration development, especially for introduction of priority e-administration services.

105. Ministry of Trade, Tourism and Telecommunication started implementation of the project E-Business Development. The project is supposed to be implemented within 30 months and the envisaged budget amounts to 2, 427,000.00 EUR. The Project Goal is strengthening the Serbian economy competitiveness through bolstering private sector, especially the small and medium enterprises and electronic business development.
106. In partnership with the Ministry of Public Administration, the Ministry of Trade, Tourism and Telecommunication is a user of the IPA Project "Assistance to e-administration development", from the 2010 IPA Programme. The project consists of four components and ministry participates mostly in its second and fourth component concerning: Legislative issues and institutions building; Information technologies; Institutions restructuring and capacity building; and E-administration services, including tax services, construction permits issuance, and personal identification documents.
107. As concerns the authorities for acting in this field, Ministry of Interior, within which the High Technology Crime Department was established, carries out the public administration duties relating to prevention and investigation of criminal acts and apprehension of criminal acts perpetrators and their bringing to justice (i.e. authorities in charge). Supreme Public Prosecutor's Office in Belgrade, for the territory of the Republic of Serbia, where a High Technology Crime Department was established, is in charge of criminal acts perpetrators and high technology crime. The High Court in Belgrade is in charge of court procedure - criminal procedure, relating to high technology crime.
108. The Strategy of information society development in the Republic of Serbia provides for the information security which is deemed a priority of the information society development. Strategy laid down the provisions concerning advancement of legal and institutional framework of information security, critical infrastructure protection, countering high technology crime and scientific and research work in the field of cyber security.
109. Draft Action Plan for Strategy of the Information Society Development in the Republic of Serbia until 2020 provides for drafting analyses of the available ICT resources, proposals for optimization and plan for further ICT infrastructure development. The laws regulating activities relating to new technologies as follows: "Law on electronic signature"; "Law on electronic document", "Law on electronic trade"; and "Electronic communication Law".

TURKEY

110. With a view to keeping abreast of orientations in the field of science, technology and innovation on the global scale and the resulting trends, Turkey also makes high-level decisions and launches initiatives on the foregoing fields. In the 25th Meeting of the Supreme Board of Science and Technology (SBST) that represents the top decision-making authority of the country in the field of science, technology and innovation through its biennial meetings chaired by the Prime Minister of the Republic of Turkey, healthcare has been named as one of the priority fields that should be streamlined under the National Strategy for Science, Technology and Innovation. After setting healthcare as a priority field in the 25th Meeting of SBST, "medical biotechnology" recently exposed to intense R&D and innovation efforts has also been involved in research priorities.
111. The 27th Meeting of SBST thematically dominated by these trends was held under the theme "National Innovation System and Medical Biotechnology" where decisions have been held for supporting corporate infrastructures and R&D efforts in this field. Besides biotechnology, IT technologies are also ranked among priority fields within the context of the National Strategy for Science, Technology and Innovation.
112. Efficiency of R&D supports has been raised in Priority Fields set upon these decisions. Contributions to academicians working on these fields have been elevated through priority field calls into the sub-branches of these priority fields so that R&D efforts could be implemented in line with the priorities of the country. One of the tendencies observed in the global arena today is the set of developments in the field of innovation that represents a design-oriented non-technological area launched in the human-machine interface within the service industry. Among new inventions that were launched only in the technological field and not supported through non-technological creative innovations so far, rare could achieve a high market performance.

113. With the goal of putting added emphasis on design efforts, a Design Strategy Framework and Action Plan has been put into effect in Turkey as well. Specific campaigns are actively implemented to ensure that some set of tax exemption facilities and incentives are granted to design as is the case with R&D efforts.
114. As is known, the task and responsibility of setting up, operating and managing the e-government portal as a common centralized platform of public services offering the citizens a safe and efficient access to public services electronically has been entrusted by the Prime Ministry to Ministry Science, Industry and Technology. For the fulfilment of such duties and responsibilities, a protocol has been concluded between the Ministry and TÜRKSAT A.Ş. In this context, the Ministry implements the tasks of setting up and operating the technical infrastructure of the e-government portal via the Türksat Uydu Haberleşme ve Kablo TV İşletme A.Ş.
115. In line with the requirements of setting the high-priority policies of the e-Government Portal and building the balance between the actual work and cost, the current protocol has been revised on 15.10.2014. In this respect, efforts for improving effectiveness and efficiency are in progress.
116. Furthermore, the Cybercrime Convention internationally binding on the subject and enacted by the European Council was signed by Turkey in 2010. With a view to readjusting country domestic law in line with the Convention and covering all legal gaps, the process is handled in cooperation with a workgroup involving Ministry Science, Industry and Technology under the cooperation of the Ministry of Justice.

VII.CONCLUSION

117. Development of high technologies has great perspectives in the BSEC region. Undoubtedly, creation of relevant infrastructure and development of high technologies on this base needs a long-term and complex strategy and proper resources. Nevertheless this process should be enhanced and cooperation in this field is vital in terms of economic prosperity and welfare of the member states.
118. Development of high technologies at the national level is stipulated by the improvement of legal basis, which could include adoption of specific laws for promoting relevant conditions in various fields of R&T. Along with forming comprehensive legislation framework an attraction of investments in the sector of high technologies has particular role in this context. Widening investment policy would promote to active participation of private sector in innovation policy of the member countries.
119. It should be noted that regional cooperation in frames of the Black Sea Economic Cooperation has already led to certain outcomes and established a concrete platform for closed cooperation in the field of technological development. However cooperation on the bilateral and multilateral basis requires more effective approach including intensive dialogue among stakeholders in the science and technology community with the view of achieving practical goals in terms of cost-effective and result-oriented interaction.
120. Cooperation with other partners and organizations with appropriate encouragement of co-funded programs in the field of technologies should be facilitated in order to apply this international experience in frames of the BSEC. Taking into consideration the huge experience of the European Community in the field of science and technologies EU principles on innovation policy and relevant activities is an excellent opportunity for the synergy policy in the BSEC region.
121. Governments may establish an environment for IT-based growth through proven policies, such as investments in education, strategic use of IT to address societal challenges, and promotion of R&D and other incentives for innovation. These investments and policies will provide not only short-term stimulus to local economies but also an enhanced position from which both developed and developing economies can compete and succeed in the years ahead.
122. In major areas such as regulations in the electronic communications market and strategies for transition to the information society, BSEC has the possibility to adopt EU regulations taking undoubtedly under consideration the individual circumstances prevailing in BSEC Member States. Hence, cooperation or information sharing on cyber security through such arrangements would encourage the business enterprises of BSEC Member States to launch investments in these countries.