

RESOLUTION 17 (Rev.Doha, 2006)

Implementation of regionally approved initiatives at the national, regional, interregional and global levels

The World Telecommunication Development Conference (Doha, 2006),

recalling

Resolution 17 (Rev.Istanbul, 2002) of the World Telecommunication Development Conference,

considering

- a) that telecommunications is one of the most vital elements for the growth of national economies;
- b) that the existence, at the national, regional, interregional and global levels, of coherent telecommunication networks and services for the development of national economies is a very important element in the improvement of the social, economic and financial situation of Member States;
- c) the need to coordinate and harmonize efforts to develop telecommunication infrastructure at the national, regional, interregional and global levels;
- d) the vital importance of telecommunication development initiatives endorsed by all regional development conferences, and by the preparatory meetings preceding this conference;
- e) that there is a lack of funding from the United Nations Development Programme (UNDP) and other international financial institutions, impeding the implementation of such initiatives;
- f) the satisfactory and encouraging results achieved by activities of this kind, which have helped in the creation of cooperation and telecommunication networks;
- g) that developing countries²⁸, are increasingly experiencing the need for knowledge of fast-developing technologies and the associated policy and strategic issues;
- h) that, given the resources at their disposal, it is an important task to meet the requirements cited in *considering* g) above,

noting

that the ITU-D centres of excellence training schemes significantly assist the developing countries with knowledge-based requirements,

resolves

1 that the Telecommunication Development Bureau (BDT) should identify possible ways and means of implementing regionally approved initiatives at the national, regional, interregional and global levels, making the utmost use of available BDT resources, its annual budget and surplus income from ITU-TELECOM exhibitions, in particular by means of equitable budget allotments for each region mentioned in the annexes to this resolution;

²⁸ The term "developing countries" includes least developed countries, small island developing states and countries with economies in transition.

2 that BDT should actively assist the countries in elaborating and implementing the regionally approved initiatives that are attached in the annexes that form part of this resolution;

3 that Member States should consider contributing in kind and/or in cash to the budget foreseen for implementation of the aforesaid initiatives and the realization of other activities foreseen within the framework of those initiatives at the national, regional, interregional and global levels;

4 that BDT should explore possible partnerships with Member States, ITU-D Sector Members, financial institutions and international organizations in order to sponsor implementation activities for those initiatives;

5 that the operation and the establishment of centres of excellence should continue to be financed from TELECOM surplus income and any other additional resource, as the case may be;

6 that BDT should assist in the implementation of these initiatives at the national, regional, interregional and global levels, integrating as far as possible those initiatives that have the same content or objectives, taking into consideration the Doha Action Plan,

appeals

to international financial organizations/agencies, equipment suppliers and operators/service providers to contribute, fully or partially, to financing these regionally approved initiatives,

instructs the Director of the Telecommunication Development Bureau

to take all necessary measures for the promotion and implementation of these regionally approved initiatives at the national, regional, interregional and global levels, ensuring satisfaction for the developing countries.

ANNEX 1

Americas regional initiatives**1 Connectivity in rural areas, marginal urban areas and isolated areas in the Americas region****Objectives**

To develop a manual on initiatives, policies, strategies, standards, projects and best practices as applied to rural areas, marginal urban areas and isolated areas; to share experiences in regard to best practices and development indicators among the administrations of member countries with a view to improving the policies, strategies and standards implemented in each country. Also, to increase society's awareness of the need to support the inclusion of groups that are marginalized or excluded from the information and knowledge society; and to contribute to the human development of marginalized or excluded groups through the use of ICTs.

Expected results

The gradual inclusion of groups that have been marginalized or excluded from the information and knowledge society; an increase in ICT penetration in rural areas, marginal urban areas and isolated areas; and the creation of new socio-economic development opportunities in these areas.

2 Interconnection of information networks for disaster prevention**Objectives**

To facilitate rapid recovery of public systems and services through mechanisms which include: identification of critical resources and points of interconnection of regional and subregional ICT networks; identification of administrative frameworks to manage the sovereignty of such resources and points of interconnection where national borders are bridged; development of relevant, redundant information databases; coordination of governmental and NGO rescue and response agencies to manage regional and subregional response; and identification of regulatory implications for sovereign States and development of a proposed framework for collaboration and harmonization with regard to disaster preparedness and response.

Expected results

Current-state assessment of existing infrastructural resources; risk analysis and needs assessments; strategy formulation; recommendations for alternative ICT architecture and points of interconnection to facilitate subregional redundancies in ICT infrastructure; proposed minimal technical standards for points of interconnection; proposed implementation strategy and proposed human capital development plan and communications strategy.

3 Support to administrations in the design and implementation of policies and programmes for large-scale development of broadband access, with a view to meeting national universal service objectives

Objectives

To support national administrations in the design and implementation of policies and programmes to support broadband access and use on a large scale, as a way to help meet national universal service objectives. The initiative recognizes that, to meet these objectives, telecommunication infrastructure must be expanded and modernized, and hence policies are needed that will promote investment by telecommunication companies. Likewise, the initiative recognizes that capacity building in broadband technologies is required within telecommunication authorities at the national level, including in regard to political, economic, technical and regulatory issues, and that coordination is needed between ITU-D, ITU-R and ITU-T study groups as well as with regional telecommunication organizations.

Expected results

Primarily, the achievement of large-scale broadband access and use, strengthened capacity and know-how in regard to broadband technologies within national telecommunication authorities and the promotion and attraction of investment in infrastructure.

4 Establishment of a Caribbean Task Force on spectrum management

Objectives

To develop regional expertise and strengthen institutional mechanisms for spectrum management in the Caribbean. Other objectives include the coordination of appropriate harmonized policies and best practices, the establishment of a database of regional spectrum allocations, the provision of technology updates and guidance to regional stakeholders, and assistance in the mitigation and resolution of interference problems.

Expected results

To rationalize the formulation of objectives, goals and proposed tasks in regard to spectrum management, strengthen and streamline the activities of national regulatory bodies responsible for use of the radio spectrum in Member States, facilitate the adoption and acquisition by the administrations of the Caribbean States of facilitating technologies and best practices for modern spectrum management, and foster international cooperation in the Caribbean subregion in regard to spectrum management in accordance with the interests of and means available to the participating States.

5 Caribbean centre of excellence project

Objectives

To provide a virtual web-based facility which is dedicated to providing training, technical assistance, expert advice and information on all aspects of the development of information and communication technologies (ICTs) and to facilitate sharing of experiences, collaboration and consensus-building on regional issues in the Caribbean.

Expected results

To satisfy regional requirements for ICT training, increase levels of ICT expertise, access to technical assistance for improving decision-making processes, greater opportunities for regional collaboration and partnership and the establishment of a highly interactive website for the delivery of the centre of excellence services, training and collaboration between ICT stakeholders.

ANNEX 2

CIS regional initiatives**1 Strengthening the effective use of spectrum by providing interactive multimedia digital broadcasting networks in countries with mountainous terrain, and optimization of radio-monitoring networks****Objectives**

To ensure the effective use of radio spectrum monitoring (establishment of an interactive multimedia digital broadcasting network in countries with mountainous terrain), to save resources in the area of monitoring network development through the optimization of existing and planned new networks.

Expected results

Provision to the populations of developing countries and countries with economies in transition with mountainous terrain of modern infocommunication services (including digital television, internet and other information society services), based on modern interactive multimedia broadcasting systems; proposals for the establishment in various countries of new state-of-the-art radio-monitoring networks or optimization of existing networks, with the possibility of subsequent development, and improvement, to ensure maximized functional and operational capabilities of the radio-monitoring networks, with minimal expenditure on setup, development and maintenance.

2 Creation of international centres for the implementation and testing of new technologies**Objectives**

To test telecommunication equipment and services; harmonize methods for the provision of new services within a region; harmonize the introduction in one or more regions of telecommunication standards issued by different international organizations; resolve system/network issues associated with the modernization of communication networks, taking account of previous communication network development experience within a given region.

Expected results

Standard alternatives for the transition to multiservice networks for networks at different levels of development at the time of elaboration of the recommendations; creation of model networks and a knowledge base on the testing of modern equipment and services; provision of access to the knowledge base and model networks to interested telecommunication administrations and operators; uniform (harmonized) provision of new services within the region; future harmonized functioning of multimode terminals throughout the region's telecommunication landscape; creation of a knowledge base on the standards issued by different international organizations and of

recommendations for their application, with a view to achieving the uniform (harmonized) introduction of standards within the region; prevention of packet disruption between a region's communication networks through optimized network planning and construction, taking account of previous communication network development experience within the region.

3 Implementation of e-applications based on broadband technologies

Objectives

To establish community telecentres using broadband access to telecommunication networks in rural localities; establish systems for online access to government information services for organizations and inhabitants, especially in rural areas; create centres for the registration of digital e-signature keys for the implementation of e-applications in government regulation, economic activities and the social sphere.

Expected results

Provision of access to information and communication services for people living in rural, remote and poorly accessible locations; provision, on the basis of a scalable platform, of services for electronic interaction between citizens, business and government bodies, based on secure and reliable applications; a broader range of services on offer to the population, irrespective of location, using information-communication technologies; improvement in the quality of social services; enabling the rural population to be more active economically and politically; elimination of the differences between urban and rural lifestyles, and enhanced attractiveness of rural life; support for building the information society.

4 Introduction of integrated, ubiquitous telemedicine technologies and systems for bridging the digital divide (in rural regions; for combating epidemics of infectious illnesses; in emergency situations; creation of a single medical information space)

Objectives

To determine the economic effectiveness of creating a single medical information space by linking regional and national stationary and mobile telemedicine consultation and diagnosis systems; study the specific features of national legislations in the telemedicine field for compatibility; research issues associated with the need for standardization and unification of telemedicine equipment and of the formats for the preparation and exchange of medical files and data; study the telemedicine service needs of populations in rural and remote regions; study how telemedicine systems may help resolve gender issues and problems of medical support for children; study the use of telemedicine systems for combating epidemics and pandemics of infectious illnesses.

Expected results

Evaluation of the economic effectiveness of using telemedicine technologies on a regional and national scale; proposals for harmonizing national telemedicine legislations with a view to the creation of regional telemedicine systems; recommendations to standardize and unify telemedicine equipment and the formats for the preparation and exchange of medical files and data; recommendations for determining the parameters for the creation of a telemedicine network for the population in rural and remote regions; recommendations for a project for telemedicine networks to resolve gender issues and problems of medical support for children; recommendations for using telemedicine systems to combat epidemics and pandemics.

5 Future development and establishment of “centres of excellence” and creation of a learning space**Objectives**

To create a single network of centres of excellence based on the principle of appurtenance to one of the official and working languages of the Union, including a Russian-language centre of excellence; establish an updated list of key centre of excellence activities, including NGN, renewable (wind and solar) energy sources and wireless access technology.

Expected results

Sustainable operation and financing of an interconnected network of centres of excellence coordinating country activities relating to the retraining and further training of staff and the creation of educational programmes for government bodies, high-level supervisors, operators and service providers, and supporting telecommunication development activities within the region; creation of a unified information and educational base in all of ITU's official and working languages; dissemination of best practices in the area of human resource development, including by means of distance learning.

ANNEX 3

Asia-Pacific regional initiatives**1 Telecommunication/ICT policy and regulatory cooperation in the Asia-Pacific region****Objectives**

To assist members in the Asia-Pacific region to develop various regulatory skills and frameworks relating to next-generation networks and services, licensing, spectrum management, convergence, cybersecurity, internet multilingualism, universal service obligation (USO), etc., through enhanced cooperation and strengthened regional presence; enhance interconnectivity and interoperability within and among Asia-Pacific member countries, including those from APT and ASEAN; and establish mechanisms to link ITU and telecommunication/ICT policy-makers from Asia-Pacific region for sharing and exchanging information, experiences, etc.

Expected results

Further to Resolution 48 (Doha, 2006), a comprehensive proposal and implementation plan to enhance regulatory cooperation and step up activities globally, organize a series of trainings/study visits, and establish a comprehensive, cooperative and coordinated (recognizing Resolution 25 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference) telecommunication/ICT development action plan and programme located in the Asia-Pacific region; and enhance the capabilities of policy-makers and regulators from Asia-Pacific member countries, including those from ASEAN, in the determination and implementation of programmes and strategies in telecommunications/ICTs through close collaboration between ITU and regional organizations in the Asia-Pacific region (e.g. APT, ASEAN, etc.).

2 Rural communications – Infrastructure development**Objectives**

To develop infrastructure in rural areas, in order especially to ensure universal service, through two different mechanisms (e.g. competition vs. subsidization) subject to different phases of development of telecommunications/ICT in Asia and the Pacific region, taking into account the relevant Questions of study groups: a) *Competition mechanism*: To promote competition in rural areas for providing telecommunication/ICT services, promote infrastructure sharing among various service providers to bring down the costs, reduce the regulatory costs and government levies as an incentive, identify and develop suitable applications for the local rural populations (e.g. youth and women), and identify the mechanisms for support from universal service funds in a time-bound

manner for the initial state of deployment of telecommunication/ICT services in rural areas; b) *Subsidized and universal service funding mechanism*: To identify the models for accelerating telecommunication/ICT development in rural communities and implement pilot projects in areas with various demographic and geographic characteristics.

Expected results

a) *Competition mechanism*: Entry of multiple service providers to provide telecommunication/ICT services in rural areas using the appropriate and cost-effective technologies; guidelines for sharing of infrastructure; guidelines to identify incentives for reducing regulatory costs and government levies to increase the growth of telecommunication/ICT services in rural areas; identification and development of a database for various applications offered by different service providers in rural areas in different countries, and development of a mechanism for encouraging the participation of local youth and women in the development of suitable applications for rural populations; and guidelines for limited and time-bound universal service mechanisms for rural areas for telecommunication/ICT services; b) *Subsidized and universal service funding mechanism*: A handbook of best practices for accelerating telecommunication/ICT development in rural communities; recommendations/guidelines on best practices for rural telecommunications/ICTs; implementation of pilot projects to demonstrate best practices for installing and maintaining the latest information and communication equipments suitable for an environment of unserved and underserved areas lacking in basic infrastructure such as electricity power and other amenities.

3 NGN planning

Objectives

To study new Questions on planning, technologies and migration strategies for next-generation networks (NGN), identifying requirements in terms of NGN software tools and evaluation criteria for NGN planning software packages, and to launch global network planning initiatives assisting Member States and Sector Members in Asia and the Pacific with smooth migration from existing telecommunication infrastructures to NGN.

Expected results

A handbook with a number of parts on NGN network planning methodologies: e.g. multi-dimension NGN network planning process, advanced NGN service demand forecasting methods, advanced NGN traffic forecasting models, advanced NGN business models, and NGN network structure and dimensioning optimization methodologies; options on appropriate and cost-effective NGN technologies and migration strategies; a guideline for selecting NGN network planning software tools; and global network planning initiative.

4 The unique telecommunication/ICT needs of Pacific islands and small island developing states (SIDS) in the Asia-Pacific region

Objectives

To identify cost-effective telecommunication/ICT technologies that can bridge the digital divide and bring digital opportunities for all, particularly small island developing states (SIDS) facing unique challenges such as isolation, distance, and lack of resources; provide a variety of solutions and best practices for the development and use of telecommunications/ICTs, including multipurpose community telecentres (MCT), that minimize the risk and uncertainty inhibiting investment in SIDS – especially in the Asia-Pacific region, since no other region has as many SIDS with remote island communities; and assist SIDS in their ongoing needs for development and maintenance of skills in the enabling telecommunication/ICT policy, regulatory, legal and operational environment to migrate to and manage new telecommunication/ICT technologies, networks and services through subregional, regional and international cooperation.

Expected results

Establishment of Question(s) in ITU study groups for identifying communication technologies which are available and will work for SIDS in a cost-effective manner; guidance for SIDS through best practices for installing and maintaining the communication equipment recommended for their unique circumstances, where basic infrastructure such as electrical power is either lacking or absent; practical advice and assistance for SIDS in utilizing communication equipment and programmes for e-health, e-education, disaster and emergency communications, etc. in their unique environment, which is different from those in remote land-based or landlocked states; and ongoing tailor-made capacity building and exchange programmes for SIDS on various aspects of telecommunications/ICTs ranging from policies, regulations and operations to technologies in a dynamically evolving digital era in order to optimize digital opportunities.

5 Strengthening the collaboration between ITU-T and ITU-D

Objectives

To assist, through ITU-D, the developing countries, especially in the Asia-Pacific region, that lack the necessary human resources to understand ITU-T Recommendations, and to enhance the application of ITU-T Recommendations for telecommunication/ICT services and equipments in the developing countries, especially in the Asia-Pacific region.

Expected results

Close coordination mechanism(s) between ITU-T and ITU-D at the regional level through the ITU Regional Office for Asia and the Pacific; guidelines for the developing countries, especially in the Asia-Pacific region, on how to understand and apply ITU-T Recommendations, particularly those having policy and regulatory implications; creation of an e-mail reflector (e.g. "ITU-T Recommendation Guide") with a pool of experts on telecommunication/ICT standards from both the developed and developing countries, through which the developing countries, especially in the Asia-Pacific region, can share their understanding and seek advice; online and/or face-to-face capacity building by experts to improve understanding of ITU-T Recommendations by the developing countries in the Asia-Pacific region; assistance to the developing countries in the Asia-Pacific region in determining whether their national standards are consistent and comply with ITU-T Recommendations; and improved participation of the developing countries in the Asia-Pacific region both in ITU-T and ITU-D, which will lead to better use of international standards by those countries.

ANNEX 4

Arab regional initiatives**1 ICT indicators and capacity building for measuring them****Objectives**

To establish information-society indicators and capacity building to facilitate measuring those indicators in the Arab region.

Expected results

- Description of the major information-society indicators in the Arab world, to enable comparison with other countries and regions.
- Enable the concerned parties to use the database in the process of decision-making and planning the development of the information society.
- Increase studies and research on information society in terms of facilitating the work of researchers by providing a large quantity of information on the information society in the Arab world.

2 Development of an Arab regulatory framework/guidelines for ICT**Objectives**

To develop a system for the Arab countries containing guidelines on telecommunication and information technology, to be used as a reference by the Arab countries, so as to enable them to achieve their national strategic objectives.

This will involve:

- implementing a system for the Arab countries containing guidelines on telecommunication and information technology, taking into account the changes that have occurred in this sector;
- improving ICT sector regulations in the Arab countries and simplifying the related procedures;
- setting guidelines for e-business and e-transactions in the Arab countries.

Expected results

- Reduction of the digital divide.
- Provision of advanced ICT services at reasonable rates and with high quality.
- Support the spread of e-applications such as e-government, e-commerce and the spread in the use of the internet.
- Transfer of ICT to the region.
- Harmonization of specifications and standards.

- Supporting the usage of e-applications in the Arab region (e-commerce, e-government, etc.).
- Enhancing user confidence in the security of e-transactions.
- Encourage ICT industry.

3 Arab centre for digital documentation (Memory of the Arab world)

Objectives

To establish an electronic gateway on the internet “Portal for Arab Heritage” in both Arabic and English, digitizing the Arab and the Islamic heritage and publishing packages of cultural products in different languages, including books, tapes, CDs.

To establish a museum for specimens of the scientific tools that have been used by the Arabs and set up a digital documentation centre.

Expected results

- Document the Arab heritage and publish it, in its different aspects, material and moral, such as the scientific Islamic heritage, the documentation heritage, the popular heritage, the architectural heritage, etc.
- Transfer information and traditional material and publish it using the internet and electronic media.
- Invest in the existing executive cooperation base established by UNESCO, through its grouping and its centre nodes in the region.
- Inform the new generation of the Arab world of their cultural identity by establishing a website on the internet designed to show the wonders of the treasures of the Arab and Islamic heritage, using the latest technology in the Arabic, English and French languages.
- Inform the world about the Arab civilization.
- Collect and disseminate specialized digital information on ICTs in the Arab region.

4 Connection of Arab internet networks (National access points)

Objectives

To develop nodes connecting the Arab internet networks, in order to allow traffic flow between the Arab countries through these nodes, and in order that information traffic to countries other than the Arab nations be routed through these nodes.

This will involve:

- Designing internet traffic of the Arab countries in such a way to prevent current negative aspects and building it on economic feasibility, using available tools and equipment to establish universal access nodes in addition to the existing nodes.
- Create the nodes and connect the Arab countries through these nodes.

Expected results

- Reduction in the cost of using the internet and reduction in the cost of interconnectivity to the international backbone.
- Increase in the use of the internet.
- Increase in Arabic digital content.
- Guarantee the continuity and availability of interconnection between the Arab countries in case of international network disruption.
- Improvement of quality of service, reduction of congestion and quicker applications download.
- Efficient use of infrastructure and available capacities.

5 Translation and arabization of ICT terminology**Objectives**

To unify the efforts being deployed to translate and arabize ICT terminology, by developing an Arabic glossary for ICT terminology, and to facilitate use of the internet by Arab users by increasing the penetration of domain names in Arabic.

This will involve:

- Approving the terminology in Arabic in the field of ICT by all Arab countries, to facilitate interaction and exchange of information among staff working in the ICT field.
- Availability of an e-glossary for ICT terminology on the internet and on CD in three languages: Arabic, English and French.

Expected results

- Support the building of the information society in the Arab region.
- Create an entity working in the field of arabization of ICT terminology.
- Overcome the digital divide.
- Support the teaching of ICT in the Arabic language in schools and universities.

ANNEX 5

African regional initiatives**1 Human and institutional capacity building****Objectives**

To provide Africa with human resources and skills needed for the harmonious development of the information and communication technology (ICT) sector, taking into account gender issues and emphasizing youth training.

Expected results

- Improve information systems to allow policy-makers to better conduct ICT development in Africa.
- Design and implementation of a joint human resource development strategy for the ICT sector in Africa.
- Support for the implementation of reform programmes and proposed strategies for the ICT sector in Africa.
- Increased use of African expertise through genuine cooperation between countries.
- Increased access to ICT training resources for all African stakeholders in the sector, with an emphasis on digital broadcasting needs.
- Priority use of national, subregional and regional training institutions.
- Promotion of technical cooperation between ICT training institutions to bolster capacity and resources.
- Networking between research and training institutions with a view to developing joint programmes.
- Increased availability of public access to knowledge in Africa, in particular by facilitating the creation of end-user training programmes.
- Development of Africa's knowledge economy by fostering young leaders and well-trained professionals.
- Establishment of information exchange and sharing forums between the various groups having a stake in the ICT sector in Africa, in particular young people, women and disadvantaged people.
- Strengthening legal institutions to cope with the ICT challenges, including cyber-criminality.

2 Strengthening and harmonizing policy and regulatory frameworks for integration of African ICT markets**Objectives**

To facilitate and enhance the reform of Africa's ICT sectors in order to achieve subregional and regional integration of ICT infrastructure, services and markets.

Expected results

Establishment of a conducive environment in Africa through subregional and regional harmonization and coordination of ICT policy and regulatory frameworks in order to facilitate:

- development of competitive African ICT markets;
- development of freely accessible pan-African services;
- harmonization of technical standards to provide increased connectivity of networks and services;
- reduction of the level of intra-continental traffic forwarded by extra-continental transit centres;
- development of universal access to networks and services, taking on board the special needs of young people, women, disadvantaged people and indigenous populations;
- tangible increase in investments, and support to existing industries;
- reduction in cost of equipments and services and harmonization of service cost and tariff structures;
- industrialization of the sector through the establishment of regional equipment manufacturers;
- migration of existing infrastructure to next-generation networks, taking into consideration convergence;
- strengthening of information security and combating spamming and cybercriminality;
- optimal use of the continent's scarce resources, including the frequency spectrum and the numbering plan;
- integration of markets and economies.

3 Development of a broadband infrastructure and achievement of regional interconnectivity**Objectives**

- To provide the African countries with a broadband infrastructure to be used for subregional and continental interconnection.
- To digitize the existing switching and transmission infrastructure in countries.
- To achieve interconnection of internet nodes among countries.
- To implement regional roaming among mobile operators.
- To provide populations with better access to and quality of ICT services and improve performance indicators.
- To reduce extra-continental transit and reduce costs related to the used bandwidths charged to the continent.

Expected results

- An operational pan-African telecommunication network.
- National telecommunication equipment and transmission routes upgraded, by using modern technologies including wireless local loop for rural areas.
- Countries interconnected by means of high-capacity links.
- Transit traffic carried outside the continent reduced to less than five per cent of intra-regional traffic.
- Resources optimized through the acquisition of common bandwidth and bulk purchase of equipment.
- Service costs significantly reduced and harmonized within each subregional economic area.
- Increased participation in the building of an inclusive information society.

4 ICT applications**Objectives**

- To provide African countries with coherent applications, drawn from their national e-strategies, making it possible to use modern data transmission and internet networks to provide electronic services for administration, health, education, trade and the economy as a whole.
- To share identified medical expertise by saving factor-related costs and skilful human resource deployment-related costs in e-health projects.
- To make reliable teaching facilities universally accessible as part of NEPAD's e-school projects and other e-learning initiatives.
- To use the postal network to reach out to rural areas as part of the implementation of the e-post project for Africa.
- To improve and optimize administration management through introduction of simplified, fast and reliable procedures (government, customs, revenue authority, local governments, etc.).
- To improve food self-sufficiency by making optimum use of climatic data for agriculture and animal husbandry, to better match production to market needs (e-agriculture), and to facilitate heritage conservation (wildlife, forests), within the framework of e-environment projects.

Expected results

- Publication of reliable, up-to-date administrative information for the population.
- Gains in terms of time and productivity, improved operations and optimized income and tax collection in the public service.
- Government websites with online services established in each country.
- Qualified medical assistance and appropriate quality care provided to the population; timely response in situations of major public-health crisis, with the establishment of early-warning systems and confirmation of diagnosis in the event of communicable diseases (e.g. Ebola virus, other epizootics requiring quarantine); improved prevention of chronic diseases such as malaria and tuberculosis; and support to HIV/AIDS initiatives.
- Consolidation of conventional education by improving needy populations' access to knowledge; higher literacy rate and education level, especially in rural areas.
- Improved management of natural resources and enhanced cost-effectiveness of agricultural and livestock products, while adding value to tourist business.
- Public availability of modern information and messaging portals, with access to communication facilities that are useful in the family context or for work, so as to improve living conditions.

5 Introduction of new digital broadcasting technologies**Objectives**

- To provide African countries with an upgraded television broadcasting infrastructure that is compatible with the new digital broadcasting plans (RRC-06, Geneva) and assist them with smooth transition from analogue-to-digital systems.
- To plan the broadcasting infrastructure (DVB-DAB) and make the transition to digital; plan for the establishment of digital terrestrial television (DTT) by standardizing the applicable codes as well as possible.
- To facilitate the emergence and use of new services through the use of broadband technologies.
- To improve and optimize spectrum management in order to ensure that the resources available for the introduction of new services are adequate, and produce a wave-propagation map for a tropical environment.
- To give the population a broader choice for reception of programmes and information from other continents and facilitate the visibility of local and regional productions (films, news, etc.).

Expected results

- Modernized radio and TV broadcasting with inclusion of new multimedia services.
 - Improved programme-sharing and enhanced added-value for local and regional production.
 - Publication of a new wave-propagation map for Africa and contribution to the elimination of harmful interference.
 - Optimized storage capabilities through the creation of digital multimedia and video libraries.
 - Significant reduction in the cost of subscriptions and video-on-demand services and programmes, launch of remote shopping and teaching services, etc.
 - Effective participation in the building of an all-inclusive information society.
 - Smooth simultaneous operation of existing analogue services and new digital broadcasting systems.
-