INFOSTANDARDIZATION

An existing Question on performance of digital networks carrying television and sound-programme signals for broadcasting and its application in the B-ISDN environment was split into two in order to make possible the assignment of one Question to one Working Party only.

SG 9 also appointed Rapporteurs to coordinate the work of different areas and represen-

tatives to ICG on satellite matters and the JCGs on B-ISDN and AVMMS.

The next meetings of the Working Parties are scheduled for 19–25 October (WP 1/9) and 20–25 October (WP 2/9), and the next meeting of SG 9 for May 1995.
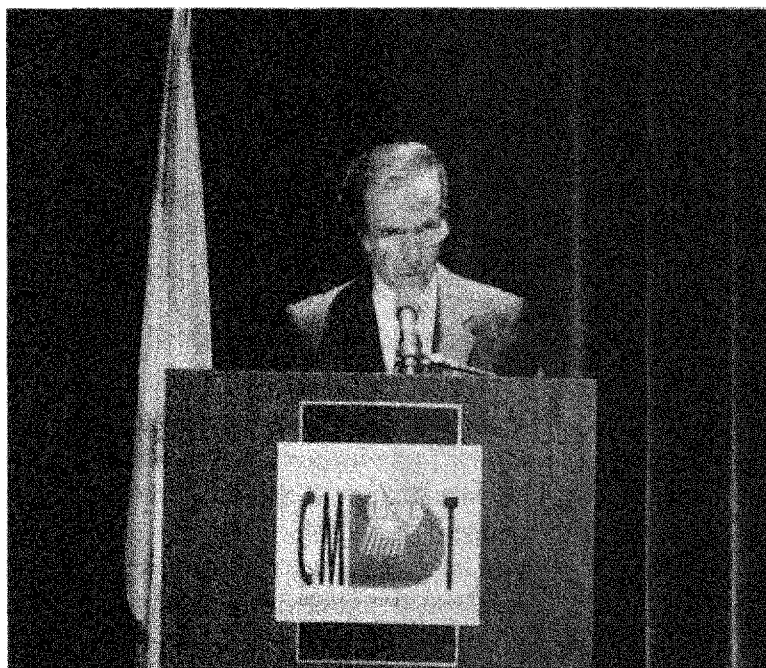
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Main highlights of WTDC-94

❑ **Least developed countries**

❑ **Separation of postal and telecommunication services as well as regulatory and operational functions**

❑ **Environment protection**

❑ **Disaster communications**

❑ **Education and telecommunications**

After a week of intense discussions, the first World Telecommunication Development Conference (WTDC-94) concluded its work on 29 March and adopted the Buenos Aires Declaration and Action Plan, as well as a number of Resolutions and Recommendations.

The **Declaration** (see box) highlights the main orientation of telecommunication development as a result of the decisions made by the Conference. It contains the visions, goals and objectives of telecommunication development to be achieved by the end of this century. It is addressed to governments.

The **Action Plan** is broken down into four chapters: a programme of cooperation among the members of the ITU Telecommunication Development Sector (ITU-D), a plan of action to be carried out by ITU's

Mr Carlos Menem, President of Argentina

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Improvement of broadcasting networks and rural telecommunications will, offer possibilities to reach people in remote areas with distance education and training

Telecommunication Development Bureau (BDT) for assisting developing countries, a special programme for the least developed countries (LDCs) and BDT operating expenditures.

Programme of cooperation

In addition to confirming the holding of a world and two regional telecommunication development conferences to be held in developing countries in the period 1995–1999, the Action Plan includes a list of the topical issues called "Questions" to be dealt with by two Study Groups during the same study period. The Questions deal with the following subjects:

Study Group I

• Special concerns of developing countries in relation to the work of the ITU–R and ITU–T
• Role of telecommunications in economic, social and cultural development
• Telecommunication policies and their repercussions at the institutional and regulatory levels as well as at the service level
• Impact of the introduction and utilization of new technologies on the commercial and regulatory telecommunication environment
• Policies and ways for financing telecommunication infrastructures in developing countries
• Industrialization and the transfer of technology.

Study Group 2

• Special concerns of developing countries in relation to the work of the ITU–R and ITU–T
• Preparation of Handbooks for developing countries
• Planning, management, operation and maintenance of telecommunication networks
• Communications for rural and remote areas
• Human resources development and management

• Impact of telecommunications in health care and other social services
• Public service broadcasting infrastructure in developing countries.

Programme of assistance to developing countries

In respect of assistance to be provided by the BDT to developing countries on the basis of their needs and priorities, the Action Plan comprises 12 programmes. The draft Action Plan refers mainly to coordinated activities of *regional* and *global* relevance, which should be complemented by *multilateral* and *bilateral* projects. The impact of such projects and their contribution to the goals and objectives of the Buenos Aires Action Plan will be greatly enhanced if they are designed and implemented in a coordinated manner within the framework of this Plan. Thus, in dealing with proposals and requests for multilateral and bilateral programmes and projects, countries are invited to take account of this factor when assigning priorities.

The programme areas should be mutually supportive: for example, appropriate policies and strategies as well as adequate information services are conditions for achieving the goals expressed for all other programmes. Human resources development is of crucial importance for the implementation of all programmes. Improvement of broadcasting networks and rural telecommunications will, for instance, offer possibilities to reach people in remote areas with distance education and training. Similarly, the development of telematics and electronic networks will support all other programmes and contribute to reduce the cost of meetings.

The 12 programme areas on which the action of the BDT will focus in the period 1995–1999 are: policies, strategies and financing; human resources management and development; development business-oriented plan; development of maritime radiocom-

munication services; computer-aided network planning; frequency management; improvement of maintenance; mobile cellular radio telephone system; integrated rural development; broadcasting infrastructure; information services; development of telematics and electronic networks.

Increasing accessibility of telecommunication services to rural and remote areas in these countries, using appropriate technology, is identified as a priority.

Special programme for LDCs

A special programme for least developed countries was established. The overall strategy of the LDC programme is to increase ITU assistance as a catalytic input to generate sustained investment in telecommunications in LDCs. It seeks primarily to eliminate bottlenecks in the five key areas of critical weaknesses which are rural telecommunication development, human resources development, management, maintenance and planning in order to enhance the capacity of the LDCs to make good use of such investments.

The ITU LDC programme does not seek ambitious objectives or targets. For the year 2000 the programme is aimed at:

— fully meeting the demand for telecommunication services in urban areas.
  This means an average urban telephone density of 5 main lines per 100 population;

— achieving rural telephone density of 1 main line per 10 000 inhabitants.

A Resolution was also adopted, endorsing the special programme of assistance to LDCs as contained in the Buenos Aires Action Plan.

It requests the Director of the BDT to give special priority to rural telecommunication development in the elaboration of strategies for mobilizing resources and in assistance to the restructuring of the telecommunication sector. In addition, the Secretary-General of

the ITU is requested to convey to the Kyoto Plenipotentiary Conference the need to review the ITU regular budget for LDCs.

The cost of implementation of the Action Plan which represents the direct contribution of the ITU to the development process, amounts to some CHF 14.6 million of which 70% will be directed to activities in favour of LDCs including the special programme for LDCs valued at CHF 2.5 million. Since the resources available through multilateral cooperation will not be sufficient to meet the requirements of developing countries, the ITU will associate, within the framework of the Action Plan, global, regional and national development, financing and investment agencies as well as partners in the private sector.

Resolutions and Recommendations

The Resolutions and Recommendations provide guidelines for the work of ITU-D. They can also express desired broad objectives which cannot be achieved other than by a combination of factors outside the control of any individual entity.

In addition to the three Resolutions concerning the Study Groups, the Resolution for LDCs and the Resolution relating to the holding of regional conferences in developing countries, seven Resolutions and two Recommendations were adopted.

Telecommunication policy and strategy

With respect to the structure of the telecommunication sector, the following reforms should be considered with a view to favouring investments, increasing efficiency, broadening the supply of services and improving service quality:

— separation of the postal and telecommunication services in order for their respective policies to be more specific to the requirements of each branch;

Accessibility of telecommunication services to rural and remote areas is a priority

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Independence of operators = commercial policies adapted to markets

A general policy should promote access to all basic telecommunication services at an affordable price

— separation of the regulatory and operational functions for a more efficient management based on customers' needs for more cost-effective services;

— creation of a regulatory body to ensure objectivity and transparency of decisions regulating the sector and for the development and impartial supervision of competition rules;

— provision of financial and management independence to operators to enable them to develop commercial policies adapted to market requirements.

The guidelines also stress the need for a clear, consistent and transparent regulatory framework to ensure, on a stable basis, the long-term development of the sector while facilitating technological innovation, infrastructure modernization, service diversification and improved quality of service.

National regulatory frameworks should also aim at promoting the provision of basic services in rural or remote areas at an affordable price and at allowing sufficient flexibility to adapt to technological and commercial changes and to the growing market segmentation. Moreover, national regulatory frameworks should provide opportunities for all interested parties including users and the private sector, to be consulted in the regulatory policy-making process.

A general policy should promote access to all basic telecommunication services at an affordable price and encourage the development of networks and services to reduce not only regional but also national disparities. The global interoperability of networks should also be fostered. The use of wireless telephone networks to introduce telecommunication services in rural and remote areas should be considered. Policies promoting the development of appropriate local or regional telecommunication industries were advocated.

To this end, opening up at least certain markets to competition should be considered.

So should the need to develop a pool of highly-trained manpower and of the need to encourage greater R&D efforts.

In order to obtain the considerable investment needed to develop modern telecommunication infrastructures, administrations should explore every possibility of attracting investment from national savings and encouraging internal and external private participation. This could be through official development assistance, leasing or build-operate-transfer agreements, or joint ventures. The choices will have to take into account the degree of access to multilateral, bilateral and private sources of funding based on the status of the operator, the degree of liberalization in regulations governing foreign investments, the regulatory framework and the tariff policies/pricing regulation.

Protection of the environment

A Resolution was adopted requesting the BDT to prepare a policy document on this subject. It also calls for the organization of seminars, training programmes, exhibitions and other similar activities to help disseminate information on applications of telecommunication and information technologies for the protection of the environment.

The role of telecommunications in reducing paperwork, and hence in contributing to saving forests as well as in decentralizing activities to rural areas in order to reduce urban congestion is also highlighted.

Board of Advisors

The Resolution proposes that the four advisory groups which were set up at ITU (World Telecommunication Advisory Council, Telecommunication Standardization Advisory Group, Radiocommunication Advisory Group and the Telecommunication Development Advisory Board) meet jointly once a year to exchange views at the highest possible level

within the ITU and to facilitate a common approach to broad strategic issues dealt with in each of these groups.

Telecommunications to telehealth and other social services

Telecommunications represent a useful tool in the provision of health care and in the protection of human life. It also plays a vital role in improving the productivity and efficiency of several social sectors such as health, education, trade or tourism.

The Conference adopted a Recommendation encouraging studies such as telehealth which would consider specific applications of telecommunications in social life, healthcare and education.

Disaster communications

Disaster preparedness requires the existence of decentralized means of communications such as those provided by mobile and portable satellite terminals or by amateur radio services to supplement the vulnerable elements of the national, regional and global communication networks. Given the severe human suffering, loss of life and damage to property and environment caused by disasters, the Conference adopted a Resolution inviting the ITU to continue its studies for the technical, operational and regulatory aspects of radiocommunications for disaster prevention and relief and to consider the issue of an appropriate tariff structure for disaster communications including the possible waiver of charges. The Resolution also calls for assistance by the BDT to help developing countries, and particularly least developed countries, in developing early warning systems using telecommunications and broadcast services and in preparing their telecommunication services for the event of a disaster.

Administrations are also called upon to take all practicable steps to facilitate the rapid deployment of disaster relief equipment, in particular through the removal of regulatory barriers and the strengthening of trans-boundary cooperation between States.

Non-discriminatory access to high-technology facilities and services

Coined the "Buenos Aires initiative", a Resolution was adopted to foster non-discriminatory access to new telecommunication technologies and modern telecommunication facilities and services established on the basis of ITU Recommendations. Such non-discriminatory access may only be possible if it does not cause any prejudice to national regulations and international commitments within the competence of other international organizations. The Resolution is also to be transmitted to the Plenipotentiary Conference which will take the necessary measures to foster global access to modern telecommunication facilities and services.

Partnership with educational agencies

Considering that telecommunications and information technologies are playing an increasingly important role in public services such as healthcare, education including distant learning and public information, the Conference adopted a Recommendation requesting the BDT to draw on the expertise of international education agencies such as the Commonwealth of Learning (COL), the *Consortium international francophone de formation à distance* (CIFFAD), the *Consortium des réseaux d'éducation à distance des Amériques* (CREAD) and UNESCO and promote awareness, through on-going information activities and special events, of the value of telecommunications for public education and training and to inform policy-makers of the need for resources to be devoted to the effective use of technology in this field. The Recommendation also calls

Telecommunications represent a useful tool in the provision of health care

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upon the members of the Sectors of the ITU to facilitate the holding of an international round-table of high-level representatives of the telecommunication and education communities to formulate strategies for enhancing the deployment of telecommunication systems and services for distance learning.

Two other Resolutions were adopted on cooperation between the ITU and regional organizations and on the membership, rules of procedures and working methods of the Telecommunication Development Advisory Board.

Conclusion

This was the first World Telecommunication Development Conference and in its novelty it provided opportunities for discussing many important issues. It also created a lot of work for staff at ITU headquarters and in Buenos Aires. Without their contribution, the Conference would have certainly concluded its work as is always the case, but maybe not as promptly. Many thanks to the players behind the scenes.

In his closing address, the ITU Secretary-General said "the name Buenos Aires is now written with golden letters into the history of telecommunication development". He added that the leaders of the world now had a lofty declaration to digest and to remember when setting national goals and priorities. "The ITU can be proud of the fact that they have paved the way for the information superhighway that will ultimately unite mankind and give everybody access to the world's riches of information and knowledge", Dr Tarjanne concluded.

BUENOS AIRES DECLARATION ON GLOBAL TELECOMMUNICATION DEVELOPMENT FOR THE 21ST CENTURY

1. The First World Telecommunication Development Conference (WTDC-94) held by the International Telecommunication Union (ITU) since the establishment of its Telecommunication Development Sector, took place in Buenos Aires, Argentina, from 21–29 March 1994. Delegations from 133 Member countries of the ITU, headed by ministers or senior officials, and representatives of 31 organizations and agencies, as well as many private sector representatives, participated in the Conference. The purposes of the Conference were: (a) to review the progress made in telecommunication development since publication in December 1984 of the Report of the Independent Commission for World-Wide Telecommunications Development "The missing link"; (b) to set the goals and objectives up to the year 2000 and to define and establish a common vision and strategies for achieving balanced telecommunication development by and beyond the end of the century; and (c) to approve an Action Plan which translates the goals and objectives agreed upon into a concrete work programme to be implemented over the next four years, identifying those priorities specific to the ITU and those areas of cooperation with its development partners.

2. In his opening address, Dr Pekka Tarjanne, Secretary-General of the ITU, reviewed developments since the Maitland Report ("The missing link") and briefly outlined the

challenges facing the world telecommunication sector. In his keynote address, United States Vice-President Al Gore called on legislators, regulators and business people to work together to build and operate a Global Information Infrastructure which would bring improved social and economic conditions to all people. He emphasized the need for all countries of the world to participate fully in the benefits of this "network of networks" and urged the Conference to bring this goal quickly within the reach of developing countries.

3. The Conference was inaugurated by His Excellency Dr Carlos Menem, President of the Republic of Argentina. He convincingly articulated the intimate link between telecommunications and development, not only in his own country but in all countries of the world.

4. The Conference was chaired by Dr Oscar Felix González, Under-Secretary of Communications of Argentina.

5. The Conference was addressed by many ministers responsible for telecommunications and other senior representatives of governments and international and regional organizations. They stressed the importance of translating the indisputable potential of telecommunications into concrete action to improve the lives of all peoples of the world, especially those in developing countries. They also stressed the serious imbalance in world telecommunication development which constrains the development of the global economy and should be a common concern of the whole international community. Practical remedies should be adopted.

6. The Conference expressed its appreciation to the Government of the Republic of Argentina for hosting the Conference and providing the conditions which contributed to its success.

7. The Minister of Transport and Communications of Malta extended an invitation to host the next WTDC in 1998. This proposal was gratefully accepted by the Conference.

8. The Conference was the culmination of a process highlighted by:

 a) the Maitland Report;

 b) the Arusha Declaration on World Telecommunications Development (May 1985);

 c) the decision of the Plenipotentiary Conference (Nice, 1989) to strengthen the Union's development role by establishing the Telecommunication Development Bureau (BDT);

 d) the ITU High Level Committee's Report "Tomorrow's ITU: The Challenges of Change", which recommended that "... the ITU [should] play a more clearly defined catalytic role, as envisaged in Nice Resolution No. 14, by working cooperatively with international, regional and bilateral development and financial agencies, and by presenting to developing countries the range of policy and structural options that will generate greater resources for telecommunications development";

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e) the ITU Constitution and Convention (Geneva, 1992) which refer, *inter alia*, to the Union's catalytic role in stimulating telecommunication development, call for special attention to be given to the requirements of the least developed countries, and establish the ITU Telecommunication Development Sector;

f) the Resolutions and Recommendations of the first cycle of Regional Telecommunication Development Conferences:
- Harare, 1990, for Africa,
- Prague, 1991, for Europe,
- Acapulco, 1992, for the Americas,
- Cairo, 1992, for the Arab States,
- Singapore, 1993, for Asia and the Pacific;

g) the insights provided in the message from the Telecommunication Development Advisory Board;

h) the concept of sustainable development emphasized by the United Nations Conference on the Environment and Development, Rio de Janeiro, June 1992.

9. Taking note of the above and with a view to setting goals and objectives for the future, the Conference **declares that:**

a) telecommunications are an essential component of political, economic, social and cultural development. It fuels the global information society and economy which is rapidly transforming local, national and international life and despite physical boundaries is promoting better understanding between peoples. Thus, ITU Members have the duty to provide for communications to be made available to all individuals, groups and peoples. A dynamic area of economic activity in its own right, telecommunications underlies practically all areas of economic activity and facilitates trade;

b) new technological developments in telecommunication and information technologies have the potential to close the development gaps between developing and developed countries and, in individual countries, between densely and sparsely populated areas. Telecommunications may unintentionally perpetuate the development gaps without a more determined, integrated and strategic approach to the challenges of telecommunication development by governments, the private sector and international and regional organizations;

c) any strategic cooperation for the development of telecommunications must recognize the varying levels of development in developing countries. While encouraged by the convergence between medium and high teledensity countries, there is still a growing divergence between medium and low teledensity ones. This fact underscores the need to pay special attention to the requirements of the least developed countries;

d) given that the telecommunication requirements of most developing countries are vast, and the resources available to meet them limited, governments should establish appropriate telecommunication policies and regulatory structures;

e) the development of telecommunications may be fostered by liberalization, private investment and competition in appropriate circumstances. Their introduction in any restructuring exercise should be compatible with national

development goals and with improving service to underserved areas. Such a restructuring should include a regulatory system which will:

— create a stable and transparent environment to attract investment,

— facilitate access of service providers to the network with a framework that promotes fair competition while protecting network integrity,

— ensure the provision of universal service helping to achieve integrated rural development as well as promoting innovation and the introduction of new services and technologies, and

— guarantee the rights of users, operators and investors.

Restructuring should promote partnerships between telecommunication organizations in developing and developed countries that equitably take account of the interests of developing countries;

f) the ITU has a special role to play in advising policy makers on the options available in tailoring policies and regulatory structures to fit a country's particular requirements. The ITU should work in close cooperation with regional telecommunication organizations and international, regional and national development and financing agencies;

g) since the resources available through multilateral cooperation will not be sufficient to meet the requirements of developing countries, the ITU must play a creative catalytic role in concert with all the entities forming part of its wide family, and with global, regional and national organizations and agencies, and the private sector. These development, financing and investment agencies, both global, regional and national, are urged to attach higher priority to the development of telecommunications in developing countries;

h) the studies carried out in the ITU Radiocommunication and Telecommunication Standardization Sectors play a significant role in the transfer of knowledge and technology. Close cooperation between these Sectors and the Telecommunication Development Sector is necessary to bring a new dynamism to this transfer;

i) development strategies should encompass sound and television broadcasting via terrestrial and satellite systems as one of the key factors in promoting social and cultural development. The new broadcasting technologies being developed will provide opportunities, including those of distance learning, for a greater contribution to development;

j) no telecommunication network can be designed, installed and operated efficiently without appropriately skilled staff at all levels. Human resources development and management require innovative approaches to meet the challenges of the rapidly changing telecommunication environment;

k) the Buenos Aires Action Plan, adopted by this Conference, establishes a programme of cooperation among the members of the Telecommunication Development Sector (Development Conferences, Study Groups, etc.), a programme of assistance to developing countries, and a special programme to enable the least developed countries to reach a threshold of sustainable telecommunication development.