# World Telecommunication Development Conference 2002

## 18–27 March



wTDC'02 ISTANBUL

International Telecommunication Union

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Telecommunication Development Bureau

## Message from the Prime Minister of the Republic of Turkey

It gives me great pleasure to welcome you all to Turkey, the crossroads of many civilisations over past centuries as a geographical and cultural bridge between Asia and Europe as well as a "bridge of telecommunications" of recent times further to its historical function. With huge investments effected in recent years, Turkey has a unique position in the Region in terms of telecommunications, which is in perfect harmony with its geographical location.

As we are all well aware, the world is in the midst of a global information revolution driven by the convergence and proliferation of telecommunications and information technologies shaping the information society of the new millennium.

Information technologies play an ever-increasing role in the social, political and economic development of every country. While generating wealth and prosperity, IT may also deepen economic disparities and existing inequalities. Many developing and least developed countries are isolated from recent technological advances and do not have access to personal computers, the Internet and the opportunities these technologies provide.

One of the basic objectives of ITU is to foster development of telecommunications in developing countries and to extend the benefits of technologies to all the world's inhabitants. Extension and wider use of information technologies will close the digital divide between those who do and those who do not have access to the information world.

It is my sincere belief that the World Telecommunication Development Conference in Istanbul, a city which links the two continents, will be a significant milestone in the process of bridging the digital divide, thus contributing to the world's welfare and peace as well.

Expressing once again the great pleasure we have in hosting you all in such a city of uniqueness for the second time after RA-2000 and WRC-2000, I trust that the Conference will offer an excellent ground not only for taking up the issues on its agenda, but also for the exchange of views on various matters of common interest, thus achieving its foreseen purposes.

Bülent ECEVIT
Prime Minister

**S**ince the World Telecommunication Development Conference last convened four years ago we have witnessed extremes in the economic cycle of the telecommunication industry. The gloom that descended upon the telecommunications industry following the burst of the dot.com bubble was certainly understandable, yet the global information society continues to evolve at breakneck speed with information and communication technologies (ICT) at the heart of this fundamental transformation of our society.

However, access to ICT in rural and remote areas continues to be a challenge, limiting the potential benefits to the world's poorer inhabitants and those furthest away from urban centres. Governments and regulators have a duty to make sure that telecommunication access is available to everyone. We also have a responsibility to ensure it is priced reasonably, making not just the technology, but also the services available and affordable to all sectors of society.

In order to meet these challenges, the International Telecommunication Union is playing an increasingly vital role as a facilitator of international policy-making. This is especially important to the work of the World Telecommunication Development Conference as it addresses the problems of access to ICT, an inequity between developed and developing nations known as the "Digital Divide".

The most prosperous nations of the world, the G8, have made a joint commitment to address these inequities. Following the spirit of that commitment, the World Telecommunication Development Conference will hold a special session to discuss both short and long-term action plans to bridge the "Digital Divide". The work accomplished here will provide critical input for the World Summit on the Information Society (WSIS) to be held under the ITU's leadership in 2003, at which time a common vision and political commitments of the Information Society will be developed by all of its stakeholders.

Despite lingering market uncertainties in the telecommunications industry, many middle-income developing countries are making rapid progress to world-class networks. However, it is in the world's poorest nations where the problems of the Digital Divide are most acute. The challenge facing the upcoming World Telecommunication Development Conference is to show how sector reform and investment in information and communications technologies can make a genuine difference to improving the livelihoods of the world's most deprived. I believe that together we are capable of meeting this challenge.

Yoshio UTSUMI

**A**ll over the world today, telecommunications and information technologies move at an incredible pace which becomes more and more difficult to catch up with and control. In this context, the main idea on which all the countries have agreed is to offer these ever-developing technologies to the use of humankind under equal opportunities and conditions. However, the need for single-handed conduct of such a mission has always been felt along with an authority to coordinate. That authority has been ITU for years. It has been very succesful in performing its task, and the success it has achieved has been continued extending up to the new millennium as well.

ITU's roots date back to the establishment of International Telegraph Union, of which the Convention was signed in 1865 by 20 founding members including Turkey. The Ottoman Empire had actively participated in the work for the establishment of the Union. Despite her continuous participation in relevant activities of ITU over a period of 135 years, since then, Turkey had not made a significant contribution until the year 2000.

As all of us know, we hosted the World Radiocommunication Conference (WRC-2000) in Istanbul in the year 2000. WRC-2000 was Turkey's first significant contribution to the ITU. This time, we are hosting the World Telecommunication Development Conference (WTDC-02) in Istanbul between the dates of 18-27 March 2002. This is the second important contribution that Turkey will make to the ITU.

WRC-2000 was organized by Turkey's main telecommunications operator, Türk Telekom, of which I happened to be the Director General at that time. Remarkable developments have taken place in the field of telecommunications in Turkey since then. One of them is the establishment of the Telecommunications Authority as the independent regulatory body. This time, WTDC-02 is being arranged by the Telecommunications Authority, of which the Presidency is held by myself. Both events are the sources of pride for my country, for those two organizations of ours, and of course my part. Especially, the chairmanship of WRC-2000 that I performed and nomination of myself for chairmanship of WTDC-02 are very great honours for me.

In full consciousness of the fact that serving ITU is serving humanity, Turkey has already taken action for the third important contribution to the ITU. Now, we wish to serve it as a member of the ITU Council which we, unfortunately, could not have the opportunity to serve over a period of 50 years. Among our other wishes are to make further contributions and host some of the ITU's future activities in Turkey again.

Trusting that WTDC-02 will contribute much to all the world's inhabitants, to the world telecommunications sector and especially to the telecommunication needs of the least developed countries, I wish the delegates a very successful and fruitful conference. Expressing the great pleasure we have in seeing the esteemed members of ITU-D sector here in Turkey, I am looking forward to meeting you all in Istanbul.

Fatih Mehmet YURDAL
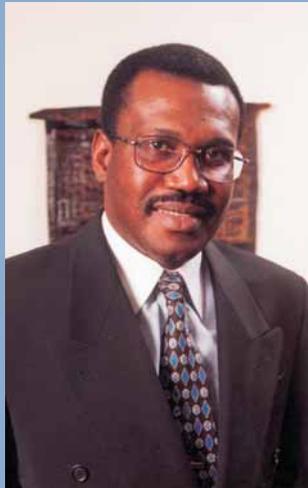
## Message from the Director of the ITU's Telecommunication Development Bureau

**T**hese are exciting times, characterized not just by technological convergence, but also by "stakeholder" convergence. If we look around everywhere, there is enormous enthusiasm and unprecedented involvement in defining a new telecommunication development agenda by all our stakeholders, who range from our Member States, our Sector Members, the private sector, intergovernmental and non-governmental organizations, academia and the general public. It is a great feeling to note that the subject of telecommunication and information and communication technologies (ICTs) has assumed so much prominence in our lives.

Never before have there been so many new players keenly interested in contributing to the development and promotion of information and communication technologies. Entities from all walks of life increasingly recognize the potential benefits of information and communication technologies in the economic, cultural, and social development and growth to which all countries aspire. Telecommunications may have been, in the past, the purview of a limited, select few, but ICTs have today become the "guiding light" for a much broader constituency.

It is with these technological and "stakeholder" convergences in mind that the ITU Council determined that the World Telecommunication Development Conference (WTDC), to be held in Istanbul from March 18th to 27th, 2002, will focus on the theme of Bridging the Digital Divide. This decision was also taken in recognition that information and communication technologies are revolutionizing the way individuals communicate with one another, the way businesses do business, and the way governments interact with citizens.

But what impact do these technological developments and this broader constituency have on the ITU and its development function, and particularly on its ICT development goals? What priorities and strategies need to be pursued and what key programmes and activities need to be carried out by the BDT in order for it to respond more effectively to the development needs of its membership? The World Telecommunication Development Conference in Istanbul has been convened to address these very issues and to provide guidance to the ITU on how best to achieve the extension of the benefits of information and communication technologies to all the world's inhabitants.

There are lessons we have learned in the Telecommunication Development Bureau (BDT) arising from the implementation of activities and programmes of the previous two World Telecommunication Development Conferences held in Buenos Aires in 1994 and in Valletta in 1998. One of these is that, no matter how hard we may work, there will always be changes in the environment. If we can't anticipate all these changes, we should strive to adapt to them. It is for that reason that we have geared ourselves to be more adaptive, dynamic, creative, and flexible in conceiving the Plan of Action which will be delivered at WTDC-02 in Istanbul.

The need to adapt to rapid technological change is critical if the Telecommunication Development Sector's action plans outlining strategies and priorities is to remain relevant and if we are to be responsive to the needs of developing countries in a timely manner. The aim should be to manage the environment and not to be managed by it. It is our duty to assist developing countries in mapping out appropriate and timely strategies to ensure that their telecommunication sector develops in tandem with the rapid technological changes, restructuring efforts, technological convergence and the transition towards competition, liberalization and globalization. Promoting competition is one key element to this effort.

The BDT has been preparing earnestly for the WTDC, mainly through five Regional Preparatory Meetings which were held in Egypt, Bulgaria, Indonesia, Cameroon and Trinidad and Tobago. These meetings have enabled the ITU-D membership to take stock of existing ITU-D programmes and activities, and to formulate regional development priorities and strategies which will now guide our discussions during WTDC-02. I expect these to be further developed in Istanbul, through various means including a Special Session on Bridging the Digital Divide, a Conference Declaration aimed at crystallizing the ITU-D vision and mission for the next four years, and an Action Plan which will spell out, in broad terms, our priorities, strategies and programmes as well as the strategies to pursue them over the coming period.

These Regional Preparatory meetings have highlighted the need for the ITU to provide pertinent assistance to developing countries who have vigorously embarked on a crusade to drive the information and communication technologies (ICTs) agenda onto their national development plans. Increasingly, these countries are forging new relationships with the private sector. This is very important because continuously promoting public-private co-financing of infrastructure as a matter of national policy poses a significant management challenge for national, regional and local government units. However, governments can develop and sustain successful public-private sector partnership only if capable institutions, effective policy frameworks, and clear operating systems are in place to manage each critical step of the project cycle. This is where the leadership's political will becomes the key ingredient. And I am proud to report that this ingredient is now a definite part of the mix, as leadership is left in no doubt that ICTs are a solution to socio-economic development. This is additional reason for confidence that the crusade will be successful.

The Regional Preparatory Meetings have also re-emphasized BDT's role as a catalyst and matchmaker for potential partners and a tool for sustainable telecommunication development. Stakeholders' achievements in recent years are there to see. We have worked tirelessly together with governments, sector members, development partners and other ICT players to develop the telecommunication sector of developing countries, of least developed countries, and of countries in special need whose telecommunication infrastructures were destroyed by war or civil strife. We have strived to provide assistance in the true spirit and letter of the Valletta Action Plan in the key areas of introducing new technologies, reforming and restructuring of member States' telecommunication sector, developing human resources, promoting universal access through rural telecommunication development, developing partnerships with the private sector, and putting in place the appropriate financial policies especially in respect of tariffs and accounting rates.
I would urge the World Telecommunication Development Conference to reaffirm the ITU's leading and catalytic role in reaching out to all potential stakeholders and partners in order to develop the Global Information Society. The ITU is ideally placed to assume this leading role, given its global and all-inclusive membership and constituency, its core mandate, and its unique status as a public/private sector partnership, in which private sector players work alongside governments in bridging the digital divide.

I am confident that the World Telecommunication Development Conference in Istanbul will indeed make a difference and that its various outcomes will open a new chapter in our collaborative effort to create significant new digital opportunities for the greater benefit of our membership. I can assure you that the BDT is up to this formidable challenge and I very much look forward to further discussing these issues with you at WTDC-02.

Hamadoun I. TOURÉ

**T**he World Telecommunication Development Conference  (WTDC) is organized by the International Telecommunication Union (ITU). The Telecommunication Development Bureau (BDT) of the ITU carries out the preparations for the Conference and organizes its work. WTDC is a gathering of the ITU's 189 Member States and 250 or so ITU-D Sector Members. The objective of the meeting is to establish ICT development priorities, strategies and Action Plans to direct and guide the work of the BDT.

The First World Telecommunication Development Conference took place in Buenos Aires, Argentina, in 1994. That Conference approved the Buenos Aires Action Plan which set the scene for four years of activity of the ITU Development Sector.

The Second World Telecommunication Development Conference took place in Valletta, Malta, in 1998. That Conference reviewed the progress made worldwide over the previous four-year period, including the developments in the Global Information Society. It also examined and evaluated the implementation of the Buenos Aires Action Plan, approved recommendations prepared by the ITU-D Study Groups and adopted the Valetta Action Plan.

The Third World Telecommunication Development Conference (WTDC-02) will be held at Lütfi Kirdar Convention and Exhibition Centre in Istanbul, Turkey from 18-27 March 2002 and shall establish work programs and guidelines, define ICT development questions and priorities in view of the high-level recognition of the digital divide created by the rapid and pervasive expansion of ICTs.

WTDC-02 will determine the objectives and strategies for the balanced worldwide and regional development of telecommunications, giving particular consideration to the expansion and modernization of the networks and services of the developing countries as well as the mobilization of the resources required for this purpose.

### The Organizers

The ITU is a specialized agency of the UN system, within which governments and the private telecommunication sector coordinate the establishment and operation of telecommunication networks and services. It is responsible for regulation, standardization, coordination and development of international telecommunications as well as the harmonization of national policies.

The Telecommunication Development Bureau (BDT) is the administrative arm of the ITU Development Sector. It has well-established programmes of activities to:

- facilitate connectivity and access
- foster policy, regulatory and network readiness
- expand human capacity through training
- formulate financing strategies
- integrate least developed countries into the global community and
- e-enable enterprises in developing countries.

The host of the WTDC-02 conference is the Government of Turkey, acting through the Telecommunications Authority of Turkey, the national regulator.

*Who Can Attend*      **The Conference is intended for:**

➢Administrations of each Member State
➢Sector Members concerned
➢Regional Telecommunication Organizations
➢Intergovernmental Organizations operating Satellite Systems
➢Other regional organizations or other international organizations
  dealing with matters of interest to the conference
➢Observers, including the United Nations and its specialized agencies

## Output of WTDC-02

**The Conference is expected to adopt:**

■ **The Istanbul Declaration**, enshrining a shared vision of the future of
telecommunications worldwide

■ **A Strategic Plan for Bridging the Digital Divide**, translating the vision
into objectives and priorities for consideration by the Plenipotentiary Conference
in Marrakesh, Morocco (23 september to 18 october 2002) and for inclusion
in the Strategic Plan of the ITU.

■ **An Action Plan for Bridging the Digital Divide** at the global level for
worldwide network extension and at the regional level to cope with specificities.
This will establish the work programme for the period 2003 to 2007.

# *Structure and Organization*

## It is proposed that the Conference will have five committees:

### Committee 1 - Steering Committee

This committee will be made up of the Chairman and Vice-Chairman of the Conference and the Chairmen and Vice-Chairmen of each of the Committees. It will coordinate all matters connected with the workflow of the conference. It will plan the order and number of meetings, avoiding overlap wherever possible in view of the limited number of members of some delegations.

### Committee 2 - Budget Control

This committee will determine the organization and facilities available to the delegates, examine and approve the accounts for expenditure incurred during the Conference and report to the Plenary Meeting on the estimated total expenditure of the Conference, as well as an estimate of the costs that would be entailed by the execution of the decisions taken by the Conference.

### Committee 3 - Editorial Committee

This committee will harmonize the texts of Resolutions and Decisions of the Conference, without altering their sense, with a view to submitting them to the Plenary Meeting.

### Committee 4 - Planning and Programming

This committee will:
➢ review the progress made in the Study Groups and the six programmes of the Valletta Action Plan since the preceding World Telecommunication Development Conference
➢ examine the developments in the telecommunication environment and consider the draft strategic plan for the ITU-D Sector
➢ identify priority subject areas to be examined in Study Groups and work programme to be carried out by BDT during the next cycle and
➢ develop a Plan of Action for the next development cycle.

### Committee 5 - Functioning and working methods

This committee will review ITU-D internal functioning and delivery mechanisms, including the organization and procedures for world and regional telecommunication development conferences, Telecommunication Development Advisory Group meetings, study groups and programme implementation, with a view to optimizing and improving the efficiency and effectiveness of these mechanisms during the next cycle.

**Note:** The World Telecommunication Development Conference can also decide, as appropriate, to create working group(s) to cover particular issues. The Conference may consider the establishment of three such working groups on (a) private sector issues (b) gender issues (c) least-developed countries.

# Draft Programme of the Conference

| | Morning Session | Lunch Session | Afternoon Session | Late Afternoon Session |
|---|---|---|---|---|
| **Saturday 16 March** | Registration and collection of documents (8:00-18:00) | | | |
| **Sunday 17 March** | Registration and collection of documents (8:00-18:00)<br>Press conference (15:00)<br>Informal meeting of Heads of Delegation (17:00) | | | |
| **Monday 18 March** | **08:00-09:00**<br>**Meeting of Heads of Delegation**<br>**09h:00**<br>**Opening Ceremony**<br>**10:00-12:00**<br>**Plenary** | | **14:00-17:00**<br>**Special Session: Bridging the Digital Divide** | **18:00**<br>**Steering Committee** |
| **Tuesday 19 March** | **9:00-12:00**<br>**Plenary** | | **14:00-15:15**<br>**Committee 4**<br>**15:15-17:00**<br>**Committee 5** | **18:00**<br>**Editorial Committee** |
| **Wednesday 20 March** | **09:00-12:00**<br>**Plenary** | | **14:00-17:00**<br>**Committee 4** | **18:00**<br>**Editorial Committee** |
| **Thursday 21 March** | **09:00-12:00**<br>**Committee 5** | | **14:00-17:00**<br>**Committee 4** | **18:00**<br>**Editorial Committee** |
| **Friday 22 March** | **09:00-12:00**<br>**Committee 5** | | **14:00-18:00**<br>**Committee 4** | **18:00**<br>**Editorial Committee**<br>**Steering Committee** |
| **Saturday 23 March** | | | | |
| **Monday 25 March** | **09:00-12:00**<br>**Committee 5**<br>**(Final session)** | | **14:00-17:00**<br>**Committee 4**<br>**(Final session)** | **18:00**<br>**Meeting of Heads of Delegations**<br>**Editorial Committee** |
| **Tuesday 26 March** | **9:00-12:00**<br>**Plenary** | | **14:00-17:00**<br>**Plenary** | **18:00**<br>**Meeting of Heads of Delegations** |
| **Wednesday 27 March** | **9:00-12:00**<br>**Plenary** | | **14:00-17:00**<br>**Plenary** | **17:00-20:00**<br>**Plenary**<br>**Closing Ceremony** |

# WTDC-2002: Issues and Mechanisms at Stake

**T**he agenda of the WTDC-02 is proposed to be an assessment of how BDT has implemented the WTDC-1998 Resolutions and Recommendations. Equally, it is a forward-looking exercise leading to the establishment of priorities for the next development cycle.

**Review:** The meeting will consider the main activities undertaken in the context of the Valletta Action Plan (VAP) and examine the accomplishments of the programmes. It is also expected to examine the report of the Telecommunication Development Advisory Group, which directly advises the Director of the BDT on strategic issues. Among other activities the meeting will review are the Special Programme for Least Developed Countries (LDCs); reports of ITU-D study groups in the strategies and policies domain (Study Group 1) and development and management domain (Study Group 2); direct assistance and implementation of technical cooperation projects within the framework of agreements with UNDP and other financing sources.

**General Policy and Strategy Issues:** There will be a report on the state of telecommunication development in the world. The conference will also consider proposals for reform of the Telecommunication Development Sector; contributions by the regional preparatory meetings to WTDC-02; the results of the global symposia for regulators and the outcome of the follow-up workshops to the Third World Telecommunication Policy Forum 2001. Finally, the strategic plan for the Telecommunication Development Sector will be reviewed.

**Operational and Technical Issues:** Discussion of future work programmes under the Istanbul Action Plan will revolve around the following themes:

- Universal access and ICTs
- Policies, regulations and economic aspects of telecommunication development
- Human resources development and strengthening of capacities
- Infrastructure development and introduction of new technologies and services
- Special Programme for LDCs

Within the framework of the overall ITU Reform process, the conference will also discuss:

**Implementation Mechanisms** associated with implementing the substantive programmes. They include:

- Framework (programmes, draft declarations, study groups, conferences, etc.)
- Mobilization of Resources
- Strategic Partnerships
- International Cooperation
- Specific Actions for LDCs.

**Internal Functioning Mechanisms**: Also coming under scrutiny are the ways and means for more rapid and efficient provision of BDT products and services.

**Special Session on Bridging the Digital Divide**: A high-level session on Bridging the Digital Divide is expected to attract quality participation from stakeholders in the sector on solutions to bridge the digital divide. The conference will:

- Review the current situation in developing countries
- Set a short-term action plan to bridge the digital divide
- Consider a long-term action plan to bridge the digital divide

# *Think Globally, Prepare Locally*

**P**reparation for the World Telecommunication Development Conference 2002 has been intense and has taken as its starting point, the priorities of each of the ITU regions established at meetings around the world: Yaounde (Africa), Port-of-Spain (Americas), Alexandria (Arab States), Sofia (Europe and CIS) and Bali (Asia - Pacific). Here are the common threads running through the globally-agreed operational and technical themes for WTDC-02:

**Finance and Investment**
Overall, the regions' shared priority is to establish a framework that is conducive to investment. Regions also underscored the need for advice and assistance in further studying service costs such as tariffs, interconnection charges and computation of Universal Service Funds. To support these common priorities, the meetings recognized the need to collect, exchange and disseminate information between the appropriate regional and international organizations by means of case studies, databases or regional workshops.

**Human Resources Development**
There appears to be an overall consensus on building a truly-integrated HR system that is able to identify the changing needs of the telecommunication sector and adapt to it by offering the necessary training programmes and expertise. ITU Centers of Excellence and training centers are considered as focal points by all regions. They are also a vehicle for strategic alliances among industry, educational institutions and community and to promote regional cooperation. All regions acknowledge the importance of supporting entrepreneurial spirit and customer/market driven culture in capacity-building.

**Network Development and New Technologies**
A need that echoes through the regions is that for technical assistance in coordinating, harmonizing and planning the successful implementation of new technologies and services. The general emphasis is on establishing the necessary information infrastructure and improving interconnectivity between countries. In light of emerging technologies, there is a need to identify and assess developments such as broadband access solutions, IP telephony and transition to 2G and 3G mobile telephony. There was also unanimity on utilizing Telecommunication Management Network (TMN) to improve network monitoring and control management as well as to ensure interoperability and inter-working between existing and new networks.

**Policy and Regulation**
Priorities established by each region point to the universal need for support of the reform process. All regions expressed the need to adapt their regulatory framework to the ongoing transition from sector-specific to converged ICT legislation. The regions underlined the necessity to access and share experiences and knowledge gained in other parts of the world and encourage the collection and dissemination of information. Some regions sought assistance in establishing or strengthening their regulatory bodies.

**Universal Access and ICTs**
The concept of universal access pervades the specific needs of each region. In view of the broad framework, the regions felt it worthwhile to revisit the definition of universal access with a view to refining its measurement. To reinforce the global effort in promoting universal access, all regions encouraged closer collaboration of the planning and study of regional and global international networks with appropriate organizations.
In order to ensure universal access to ICT, a common will is emerging to develop mechanisms for access to the Internet and to elaborate recommendations for extending ICTs to the rural areas. Furthermore, countries need to be supported in elaborating plans and sector strategies for ICTs. Developing tariff models and a legal basis may favour the expansion of internet access on a global basis.

**Special LDC Programme**
Among the measures proposed to strengthen the ITU's special assistance to LDCs are the mobilization of additional resources for LDCs, for example, through ITU TELECOM surplus funds and support of Sector Members in the region. Special assistance is recommended to one or two LDCs at a time. The Africa region recognizes that bridging the digital divide calls for aggressive fund-raising and is seeking ways to change the current financial arrangements to minimize conditionality and other restrictive practices in the international financing arena.

# The new Missing Link: The Digital Divide

**T**he good news is that much has been achieved since the publication of the Maitland Commission's famous *Missing Link* report. Measured in conventional terms, such as teledensity or percentage of households with a telephone, there has been a substantial narrowing of the gap. Africa now has more than twice as many main telephone connections as Tokyo and 85 percent of today's world population share 45 percent of all telephone lines (see Figure 1). In comparison, in 1984, 90 percent of the world's people used only ten percent of all telephone lines.

The bad news is that the mismatch between the technology-rich and the technology-poor seems to be a step ahead and while we are still filling the gap of the 1980s, the Information and Communication Technology (ICT) wave of the 1990s risks digging new holes behind our back. The two major market trends that have characterized the last decade - the growth of mobile communications and the development of the Internet - were not foreseen in the Maitland report. However, the figures show that the situation is not as bad as it was twenty years ago. Figure 1 demonstrates that access to ICTs is asymmetrical. Eighty-five percent of today's population represents some 35 percent of mobile users and make up only 25 percent of the world's total Internet users.

There are important similarities between the missing link, which described the difference in access to basic telephone services between developed and developing countries



**Figure 1: The missing link/the digital divide**

**User distribution by income group, January 2001**

Source: *ITU World Telecommunication Indicators database.*
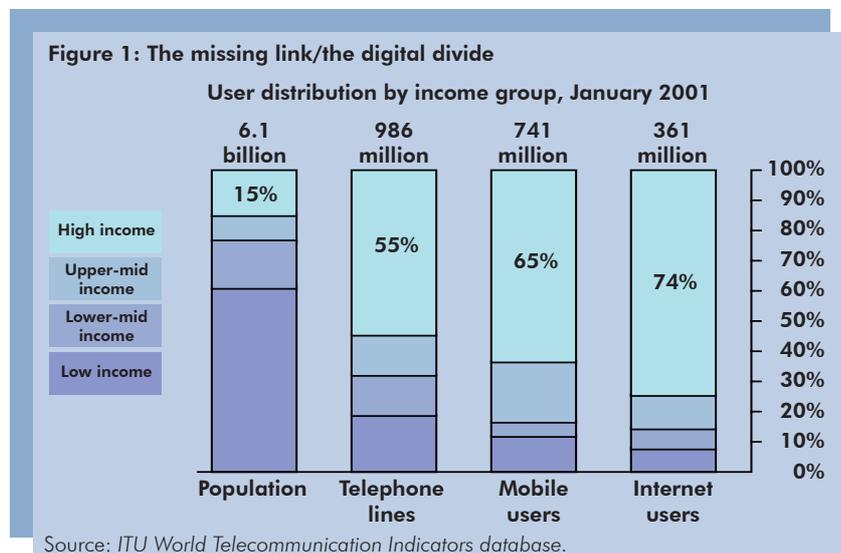
and today's digital divide. The most important one is that both concepts acknowledge a direct correlation between access to telecommunications, economic wealth, and social development.

On the other hand, the technologies that the digital divide is all about have a bigger potential than those promoted twenty years ago. The Internet, more than any other technological tool, has the potential to allow developing countries to leapfrog into the information age. If information is power, then the Internet must be the easiest way of empowering those that have traditionally been left behind. The Internet opens the door to e-education and e-health, important variables in the development equation. E-government fosters transparency and promises to become an important remedy to corruption. It is obvious that while the Internet is not an all-

powerful solution, the development sector's hopes in its potential are high. The UNDP's website, for example, introduces the Human Development Report 2001 with the following words: "Technology networks are transforming the traditional map of development, expanding people's horizons and creating the potential to realize in a decade progress that required generations in the past."

ICTs pay in another way. ICT spending, which includes spending on telecommunication and PC products and services, equipment and salaries contributes to economic growth and development. In the European Union (EU), for example, IT accounts for 5 percent of the total GDP and the IT sector employs over 4 million people. Business to Business (B2B) e-commerce in the European Union is expected to be worth US$ 1.27 trillion in 2004 and account for 12.7 percent of the region's GDP.

## Education, literacy, and language

The Missing Link is primarily an infrastructure problem since it is about access to telephones lines. People do not need special training or a certain level of education to use a telephone so once the line is installed, the missing link problem has been solved.

Today's technologies, however, are far more complex and demanding and infrastructure is only part of the problem. Even a high speed Internet connection cannot guarantee that people will be able to make use of the Internet and it is important to

distinguish between access and use. In other words, the complexity of the Internet forces us to distinguish between quantitative and qualitative barriers or factors.

Quantitative barriers include a country's GDP per capita, the infras-

tructure (which includes telephone lines, mobile phones and PCs) and Internet access prices. These are things we can easily identify and quantify.

Qualitative barriers, on the other hand, are less obvious because they are not directly linked to the Internet market but call for a more profound look at a country's culture and social structure. Because the language, the literacy rate and the users' need for specific content as such have nothing to do with the telecom market, it is also easier to miss these factors.

We could also say that, whereas the quantitative factors represent the supply side, the qualitative factors tell us more about the users, that is, the demand side. We know that supply and demand have to go, and also grow, hand in hand. If we want to increase the number of Internet users, then we have to know where the biggest potential to develop lies. Are the potential users there but is the infrastructure missing or is the access price too high? Or should we rather develop the need/ambition to use the Internet? While it is obvious that illiteracy is a barrier to Internet use, it is often not enough to be able to read and write. In southeast Asia, for example, Internet penetration does not match the relatively high level of literacy. It is interesting to note, howe-

**Figure 2**

| Country | Internet penetration | Adult literacy rate (%) | Female adult literacy rate (%) | Daily newspapers as a percentage of population (1996) |
|---------|---------------------|------------------------|-------------------------------|-------------------------------------------------------|
| Singapore | 29.9 | 92.1 | 88.0 | 32.4 |
| Malaysia | 15.9 | 87 | 82.8 | 16.3 |
| Thailand | 3.8 | 95.3 | 93.5 | 6.4 |
| Philippines | 2.6 | 95.1 | 94.9 | 8.2 |
| Indonesia | 0.9 | 86.3 | 81.3 | 2.3 |
| Vietnam | 0.25 | 93.1 | 91.0 | 0.4 |
| Cambodia | 0.05 | 68.2 | 57.7 | 0.2 |
| Lao PDR | 0.1 | 47.3 | 31.7 | 0.4 (1970) |

Source: *ITU and UNESCO.*

ver, that Internet penetration is similar to daily newspaper penetration. This suggests that the Internet is used by people not with basic but with higher educational levels (see Figure 2). Similarly, Internet user profiles suggest that the average Internet user speaks more than one language (or is English mother tongue) and has a relatively high degree of education.

Language is a very important factor. While the telephone can be used by anyone speaking any language, the Internet's 'multilingualism' is still limited. What is striking is the breakdown of Internet use by language and the fact that those who do not speak English tend to have a much lower level of usage. Figure 3 (left chart) shows that almost half of Singaporean adults that are literate in English are on-line, compared to around one third of those that do not speak

English. It also pays to be literate in more than one language. Around 55 per cent of Singaporeans who understand English and Chinese are online, compared to 38 per cent of those who are literate in either Chinese or English but not both. Most remarkably, there are hardly any Internet users amongst those who speak only Chinese or only Malay. The Thai Internet user profile (Figure 3, right chart) shows similar results. While language is and will remain a barrier in many parts of the world, the Internet is likely to be dominated by a few languages, not exclusively English. A country like China, for example, has over 22 million Internet users and a great interest in developing Chinese language content. A survey in February 2001 showed that "Chinese Internet users are most likely to be male, aged between 18 and 24, and have a bachelor's degree" . The same survey showed that almost 76 percent of these users access Chinese-language web sites. The dividing line then is likely to be between those who are educated and speak either English or one of the other languages represented on the Internet and those who don't.

To increase 'global interconnectivity' and spread the benefits of the digital revolution we must recognize that the digital divide, apart from being an infrastructure problem, is about education, language and awareness. It is as much a knowledge divide as an infrastructure divide.

**Figure 3**

**Singapore**
Never use Internet (by language)

English only 58.5% | Chinese only 94.4% | Malay only 100% | English & Chinese 44.5% | English or Chinese 61.9%

**Thailand**
English profiency of Thai Internet User 2000

Fair 43% | Good 38% | Limited 11% | None 1% | Excellent 7%
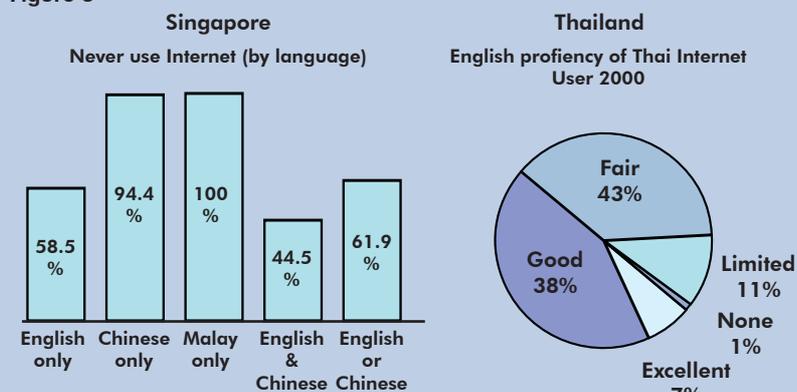
Sources: *Left: ITU adapted from CABSAT/NETWATCH.*
*Right: ITU adapted from NECTEC, "Internet User Profile of Thailand 2000."*

# *Delegate Information*

To ensure that the work of the conference proceeds smoothly, the attention of all concerned is drawn to the following information of the practical and administrative arrangements for the Conference.

### I. PARTICIPATION

**Notice of participation**

To enable the necessary arrangements to be made in a timely manner, Member States and Sector Members of the Development sector intending to be represented at the World Telecommunication Development Conference are requested to complete the enclosed registration form as soon as possible and fax it to +41 22 730 5484. The form is also available at http://www.itu.int/ITU-D/conferences/wtdc/2002/doc/registrform.doc

**Registration Desk**

WTDC-02 will be held in the Lütfi Kirdar Convention and Exhibition Center (ICEC), Harbiye, 80230 Istanbul, Turkey (http://www.icec.org). The registration desk will operate in the entrance hall of the ICEC (entrance by the main door) according to the following timetable:

| | |
|---|---|
| Saturday, March 16, 2002: | from 08:00 to 18:00 hours |
| Sunday, March 17, 2002: | from 08:00 to 12:30 hours — 13:30 to 17:00 hours |
| Monday, March 18, 2002: | from 08:00 to 12:30 hours — 13:30 to 17:00 hours |
| Tuesday, March 19, 2002 onwards | from 08:30 to 12:30 hours — 13:30 to 17:30 hours |

When registering, participants are requested to present an official identity document (eg, passport or driving license) bearing a photograph or a copy of their delegate registration receipt notification.

**Identification Badges**

At the time of registration, delegates will receive an identification badge which must be worn at all times when entering the ICEC.

### II. CONFERENCE PROGRAMME AND FACILITIES

**Conference Agenda**: The Conference agenda is found in Document WTDC-02/1 and on page 9 of this brochure. It is not yet possible to give precise information on the proceedings, since the Conference programme will be drawn up by the Steering Committee. Once this has been established, the meeting schedule will be on permanent display.

**Medical Service and Access for the Disabled**: Medical service is available inside the ICEC. Each floor of the ICEC is equipped with a lift to facilitate access for the handicapped.

**Computer Terminals**: Computer terminals will be available for use by delegates in the Istanbul Convention and Exhibition Center. These terminals will also allow you to access the conference and documents through ITU Telecom Information Exchange Services (TIES) at the following address: http//www.itu.int/wtdc-02/

**AIR TRAVEL**

Istanbul is readily accessible from all parts of the world and served by more than 50 airlines. Every major European airport is 2 to 3 hours away. There are frequent non-stop direct flights to Istanbul from most European cities, New York, Chicago, Tel Aviv, Johannesburg, Tokyo, Bangkok, to name a few, all connected to a vast network of domestic air routes.Together with some private airlines, Turkish Airlines (THY) provides a network of domestic flights from the international airports of Istanbul, Ankara, Izmir, Antalya, Adana, Dalaman and Trabzon to all of the major Turkish cities. THY's website is http://www.thy.com.tr/en/index.htm.

Delegates are required to make their own travel arrangements. A travel agent for reconfirming, re-routing and issuing air tickets of participants will be located in the Convention and Exhibition Center.

**The Lütfi Kirdar Convention and Exhibition Center (ICEC)**, home of WTDC-02, is located in the heart of the city's business, cultural and commercial districts and is within walking distance to many hotels.

ICEC has 21 meeting rooms. The main auditorium accommodates 2,000 people in armchair seating and is equipped with the world's third largest moveable screen, a moveable stage, extensive lighting, state-of-the-art audio-visual equipment and simultaneous translation facilities for 12 languages.

A 3,000 sq meter foyer for product and service exhibitions complements the meeting facilities, as does the fully-equipped business center, a bank and the underground car park.

The top-quality five-star in-house food service is equipped to cater to every type of event, from a proper business lunch to an elegant cocktail reception or buffet dinner. The Bogazici Borsa Restaurant, specializing in Turkish cuisine, seats up to 500 people and the adjoining summer terrace, 1,500.



### ARRIVAL and AIRPORT TRANSFER

On arrival at the Istanbul International Airport, delegates will be greeted by personnel from the Turkey Telecommunication Authority at the Airport Hospitality Desk. This facility is only available on March 16 and 17 2002.

### HOTELS and LOCAL TRANSPORT

A list of hotels can be found in the back folder of this brochure. A map indicating their approximate locations can be found on page 17 of this brochure. Hotel rooms cannot be booked through the ITU Secretariat but can be booked directly with the hotels from the ITU website at http://web.itu.ch/ITU-D/conferences/WTDC/2002/hotels/index.html

Taxis in Istanbul are plentiful and can be distinguished by their yellow colour and the "Taksi" sign on the roof. All taxis are fitted with meters which must be used by law. Rates go up after midnight and there is a supplemental charge for trips to and from airports. Passengers are also required to pay extra for ferryboat or bridge crossings. Other means of transportation are public buses, trains, trams, ferry boats, sea buses and "dolmus".

## III DOCUMENTS OF THE CONFERENCE

### Document Control Service

*Before the Conference*: Proposals for the work of the conference should reach the ITU Secretariat well in advance of the opening of the Conference. The Secretariat may not be able to ensure that documents submitted late are translated in time. The electronic version should be sent by email to WTDC-02proposals@itu.int.

*During the Conference*: Texts for translation and distribution must be handed in as soon as possible to the Document Control Service. They must be signed by the Head of the delegation concerned (with box number) and should be provided with an indication as to the constituent body of the Conference to which they are addressed (Plenary, Committee or Working Group). Texts should be typed. Texts should not normally include excerpts from texts already issued; but if they do, the sources should be clearly indicated. To the extent possible, texts should be submitted electronically.

### Document Distribution

*Before and After the Conference*: Documents will be sent to administrations according to the orders received. For reasons of economy, the smallest possible number of copies of documents will be printed. Participants are accordingly requested to bring to the Conference copies of documents which have been sent to them.

*During the Conference*: This service will provide for each delegate an individual pigeon-hole bearing the number which appears on the badge issued at the time of registration. Documents distributed (one copy per participant), as well as telegrams and other messages for delegates, will be placed in the pigeon-holes.

## IV. PRACTICAL INFORMATION ON ISTANBUL

### Turkish entry visas

Every foreign national coming to Turkey must be in possession of a valid passport. Participants are kindly advised to contact a Turkish embassy or consulate to find whether an entry visa is required or not. If necessary, please make sure to obtain a proper visa either at a Turkish embassy or consulate nearby prior to travel to Turkey.

The following documents are required to be submitted to the Turkish embassy or consulate when you apply for a visa, but other documents can be required in some countries:

1. Photocopy of invitation letter already sent to your Government
2. Note verbale by your Government or an authoritative institution certifying your participation in WTDC-2002.

### Banks, credit cards and currency exchange

Official opening hours of banks in Turkey are from 0900 to 1700 hours from Monday to Friday. Major foreign currencies can also be exchanged at larger hotels. Most hotels, restaurants and shops in Istanbul accept major credit cards.

Turkey's currency is decimal. The Lira is the unit of currency. Foreign currencies can easily be changed at the banks, change offices, PTT branches and larger hotels. Travelers may bring an unlimited amount of Turkish Liras and foreign exchange with them. It is free to transfer Turkish Liras or foreign exchange by means of banks. Such goods having a value more than US$15,000 may be exported only if they have been declared at the entry or it is certified that these goods were purchased in Turkey. At the time of printing this brochure, the exchange rate was roughly 1,400,000 TRL to US$1 and 1,245,000 TRL to €1.

### Climate

In March, the weather in Istanbul is usually rainy. Average temperatures are: 4 to 10°C during the day and 1 to 4° C during the night. The coastal regions have a moderate maritime climate while the internal regions surrounded by mountains have a continental climate.

### Language and Time Zone

Turkish is the official language. Turkey has a single time zone across the country. It is one hour ahead of Central European Time and two hours ahead of GMT.

### Electrical Appliances

The electric current in Turkey is 220 volts AC in all parts of the country.

ICEC

**HOTELS IN ISTANBUL**

| | | | | | |
|---|---|---|---|---|---|
| **1** | CEYLAN INTERCONTINENTAL ISTANBUL | **14** | CYRSTAL | **28** | HOTEL PERA PALAS |
| **2** | CONRAD ISTANBUL | **15** | DILSON HOTEL | **29** | MEGA RESIDENCE |
| **3** | ÇIRAGAN PALACE HOTEL KEMPINSKI | **16** | ERESIN TAXIM | **30** | VARDAR PALACE HOTEL |
| **4** | HOTEL DEDEMAN ISTANBUL | **17** | OTEL EURO PLAZA | **31** | KERVANSARAY |
| **5** | DIVAN HOTEL | **18** | GOLDEN AGE 1 | **32** | HOTEL KONAK |
| **6** | HYATT REGENCY | **19** | HILTON PARKSA | **33** | HOTEL GRAND STAR |
| **7** | HOTEL PRINCESS | **20** | HOTEL LAMARTINE | **34** | DORINT PARK PLAZA |
| **8** | HOTEL PRINCESS | **21** | LION HOTEL | **35** | MIM HOTEL |
| **9** | MERIT ANTIQUE | **22** | MERCURE ACCOR HOTELS | **36** | GRACE HOTEL |
| **10** | POLAT RENAISSANCE | **23** | RICHMOND HOTELS | **37** | KEBAN HOTEL |
| **11** | SÜRMELI HOTEL | **24** | RIVA OTEL | **38** | FERONYA HOTEL |
| **12** | SWISSOTEL | **25** | SAVOY HOTEL | **39** | HOTEL PIERRE LOTI |
| **13** | THE MARMARA | **26** | THE MADISON HOTEL | **40** | HOTEL RESIDENCE |
| | | **27** | THE PLAZA HOTEL | **41** | VILLA ZURICH HOTEL |

17

# Istanbul and Turkey: History and Culture

## Istanbul, a World City

"There God and human being, nature and art, created all together such a perfect place on earth, it is well worth seeing."

This unique city, at the meeting points of Europe and Asia, located on both sides of the Bosphorus (Istanbul Straits) is described as such by the famous French author Lamartine.

Istanbul embraces two continents, one arm reaching out to Asia, the other to Europe. Through the city's heart, the Bosphorus strait, flows the waters of the Black Sea, the Sea of Marmara and the Golden Horn, which is one of the most beautiful natural harbours in the world. The former capital of three successive empires - Roman, Byzantine and Ottoman - today Istanbul honors and preserves the legacy of its past while looking forward to its modern future.

The history of the city, which is known as the "Capital of the Empires", goes back to ancient times. The city was founded by the Megaras in B.C. 658 and was named Byzantium after their commander Byzas. The city, which developed very rapidly and turned into a large trade center, existed for hundreds of years as the capital of the Roman, Byzantine, and Ottoman Empires. Today it has become Turkey's most important tourism, trade, and industrial city.

The most beautiful historical works of Istanbul are at the historical peninsula inside the city walls between the Marmara Sea and the Golden Horn. This historical peninsula is like an open air museum full of architectural and artistic works bearing the traces of the Roman, Byzantine, and Ottoman Empires.

Istanbul's variety fascinates its visitors. The museums, churches, palaces, great mosques, bazaars and sights of natural beauty seem inexhaustible. The hills of the city are enhanced by the more than 500 mosques. Among these mosques, the *Sultanahmet Mosque* with its six minarets, built by Sultan Ahmet I in the seventeenth century, is the symbol of Istanbul. It is also called "the Blue Mosque" because of the blue glazed tiles used in its interior decoration. The *Süleymaniye Mosque*, another mosque of the Ottoman Period, is the most beautiful and magnificent
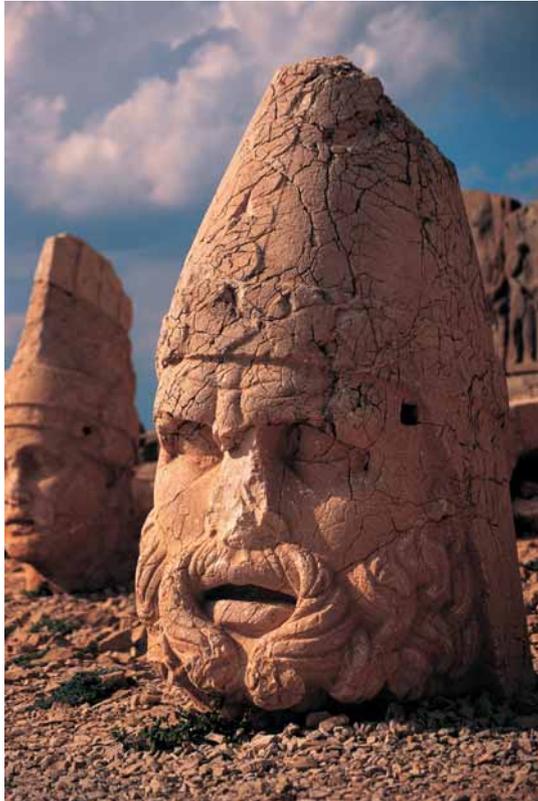


architectural work in Istanbul. It was constructed by Turkey's famous architect Mimar Sinan, upon the order of Kanuni Sultan Süleyman (Süleyman the Magnificent) in the sixteenth century, when architectural beauty reached its peak. It is perched on the hills of the Golden Horn like a crown. The *Rüstem Pasha Mosque*, which reveals the aesthetics of the Ottoman art of glazed tiles, is a small but beautiful mosque constructed by Mimar Sinan in the sixteenth century. The inside of the mosque is covered with the most beautiful examples of the famous Iznik glazed tiles. The *Mihrimah Sultan Mosque*, another mosque remaining from the sixteenth century, is the mosque with the most light in Istanbul. The mosque has a total of 161 stained glass windows on its four façades.

The *Topkapi Palace*, which served the function of being the political center of the Ottoman Sultans for a period of 400 years, is located on a hill dominating the Bosphorus, the Marmara Sea and the Golden Horn. Today, the palace is a museum worth seeing, with its world famous Chinese porcelains, thrones ornamented with gold and precious stones, the costumes of the Sultans, jewelry, handwritten books and sacred pieces. Another magnificent palace is the *Dolmabahçe Palace* with its 600 meter front on the Bosphorus. The palace which was built by Sultan Abdülmecid in the mid-nineteenth century, is surrounded by 56 columns and is famous for its ceremony hall, illuminated by a 4.5 ton chandelier.

The most magnificent architectural work of the Byzantine era in the city is the *Ayasofya* (Saint Sophia) Museum. The Ayasofya, which was built by Emperor Constantine as a basilica in the fourth century, was destroyed in a fire, but later Emperor Justinian had it rebuilt in the sixth century. The dome has a height of 55 meters and a width of 31 meters. It is the oldest and the forth largest among domes of the cathedrals after the St. Peter's in Rome, St. Paul's in London, and the Duomo in Milan. The *Kariye Museum* also displays the beauties of Byzantine art with its mosaics and frescoes. These frescoes which were made in the fourteenth century, influenced and guided

the European Renaissance. The *Yere-batan Cistern* with its 336 columns constructed by the Byzantines in the sixth century to meet the water needs of the city is worth seeing. The *Sultanahmet Square*, one of the most important squares in the city, is ornamented with the Dikilitas (Obelisk of Theodosius), the bronze Serpentine Column and the Column of Constantine from the Byzantine Period.

Besides these, there are many more museums and monuments in the city. Among these are the *Istanbul Archeological Museums*, the *Atatürk Museum*, the *Sadberk Hanim Museum*, the *Mosaic Museum*, the *Tower of Leander (Kiz Kulesi)*, the *Galata Tower*, the *Rumelian* and *Anatolian Fortresses* and the *Istanbul City Walls*.

The *Kapali Çarsi* (Covered Bazaar) which dates back to the fifteenth century, has 4 000 shops today and is one of the places frequently visited by tourists. Jewelry, antiques, carpets, silver and copper souvenirs, leather and suede clothes, wood-carvings and carvings with mother-of-pearl are sold at this bazaar. Furthermore, it is possible to find every type of spice at the *Misir Çarsisi* (Egyptian Bazaar) constructed by Hatice Sultan in the seventeenth century. Istanbul is also a modern center for shopping. Along with the shopping malls, such as the Ataköy Galleria, the Akmerkez, the Capitol, the Carousel and the Carrefour; Istiklal, Rumeli and Bagdat Avenues are the most distinguished shopping areas of the city.

## Turkey: Crossroads of Continents

The Republic of Turkey is a country located at a point where the three continents of the old world (Asia, Africa and Europe) are closest to each other and where Asia and Europe meet. Because of its location, Anatolia has always been important throughout history and is the birthplace of many great civilizations.

The surface area of Turkey including the lakes is 814 578 km². Out of the total land, 97% is in Asia and this part is called Anatolia or Asia Minor, 3% is in Europe which is called Thrace.

The population of Turkey is more than 64 million.

Turkey has been called "the cradle of civilizations". The world's first town, a neolithic city at Çatalhöyük, dates back to 6 500 B.C. from the days of Çatalhöyük up to the present, Turkey boasts a rich culture that through the centuries has made a lasting impression on modern civilization. The heir to many centuries of cultures makes Turkey a paradise of information and cultural wealth. Hattis, Hittites, Phrygians, Urartians, Lycians, Lydians, Ionians, Persians, Macedonians, Romans, Byzantines, Seljuks, and Ottomans have all made important contributions Turkish history, and ancient sites and ruins scattered throughout the country give proof of each civilization's unique distinction. ■

Further information on Turkey and Istanbul can be obtained through the following web sites:
http://www.turizm.gov.tr/engindex.html
http://www.kultur.gov.tr/english/main-e.html
http://www.turizm.net/
http://www.turkishodyssey.com/
http://www.tuttinsieme.it/tutti/tut/eur2/turkey/ agencies.htm

**T**urkey's telecommunication sector is currently in a transition period. The Telecommunications Authority is the first sector-specific regulator in Turkey and was established by the Amending Law No. 4502 on 29 January 2000 as an independent authority responsible for regulating and supervising the telecommunications sector including radiocommunications issues but excluding broadcast content regulation and licence.

The Authority has been operational since 15 August 2000 and it is independent in terms of management and finance. The Telecommunications Board is the decision maker of the Authority and comprises four members headed by the Chairman of the Board who is at the same time President of the Authority. The Chairman of the Board is the chief executive and is responsible for the general governance and representation. There are four vice presidents functioning under the President of the Authority. The Headquarters is situated in Ankara and there are main functional departments, consultative and auxiliary units and regional directorates in the Authority.

Following the establishment of the Authority, numerous studies have been initiated towards the smooth regulation and liberalization of Turkish telecommunication sector. Concerning the licencing regime, one of the major initiatives is the preparation of a draft secondary legislation covering principles and procedures for issuing Type 2 telecommunication licences and general authorizations.

In addition, official work has been carried out by the Authority regarding the renewal of the current licence regulation, namely "Telecommunications Services Regulation", developed by the Ministry of Transport on 28 March 2001 pursuant to the Amending Law no. 4502 before the enactment of the second Amending Law no. 4673.

Liberalization in telecommunications sector exists in GSM services, which are provided through the authorization/concession agreements between the mobile operators and the Authority as of today. Currently, four mobile GSM operators are operating in Turkey.

The Authority is responsible for setting the price caps and reference tariffs on a non-discriminatory basis. The studies related to tariffing policy for the dominant operators and operators with significant market power have been finalised and respective regulation "Tariff Regulation" has been published in the Official Gazette on 28 August 2001.

The Authority is also responsible for regulating interconnection arrangement and solving the disputes between operators on the interconnection agreements. Studies continue for the preparation of the interconnection agreement principles and reference tariffs.

To ensure the efficient utilisation of the numbering resources for all publicly available telecommunications services between the operators, the Authority has initiated regulatory studies for the management of the numbering resources considering the new entrance to the sector with the full liberalisation.

**TELEKOMÜNİKASYON KURUMU**