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WSIS EXECUTIVE SECRETARIAT

REPORT ON THE WSIS STOCKTAKING

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0 INTRODUCTION

0.1 WSIS stocktaking

1. The WSIS stocktaking is intended to fulfil the dual purpose of providing an inventory of activities undertaken by governments and all stakeholders in implementing the Geneva decisions (the WSIS Declaration of Principles and Plan of Action) and taking stock of the progress made in building the Information Society. It complements the report on WSIS Stakeholder Commitments ("Golden Book") to be announced during the Tunis Phase.

2. The WSIS stocktaking was launched by the WSIS Executive Secretariat (WSIS-ES) in October 2004. Following an initial brainstorming meeting of stakeholders, an online consultation and discussions within the WSIS Bureau on the form the stocktaking should take, a questionnaire was developed, sent to all stakeholders and posted online (see **www.itu.int/wsis/stocktaking**). On the basis of responses received, a searchable, publicly accessible database of WSIS-related activities has been created. As of 5 October 2005, the database contains details of around 2'400 WSIS-related activities, including project descriptions, supporting documentation and URLs, which are searchable by WSIS action line, type of entity, the development goals contained in the Millennium Declaration (MDGs), geographical coverage, keywords, etc.

3. The WSIS stocktaking database is intended to be a dynamic portal to all WSIS-related activities undertaken by stakeholders and it will continue to be updated beyond the completion of the Tunis Phase. A preliminary report was made to PrepCom-2 (document PC-2/6) and a revised report was submitted to PrepCom-3 (PC-3/3). This revised report incorporates those comments received by 5 October and is submitted to the Summit. It contains hyperlinks to sources of information on the different projects listed. However, it does not aim to be a comprehensive report on the activities submitted to the website: rather, it points to the richer and continually updated information available in the database itself and on the Web.

0.2 Statistical summary

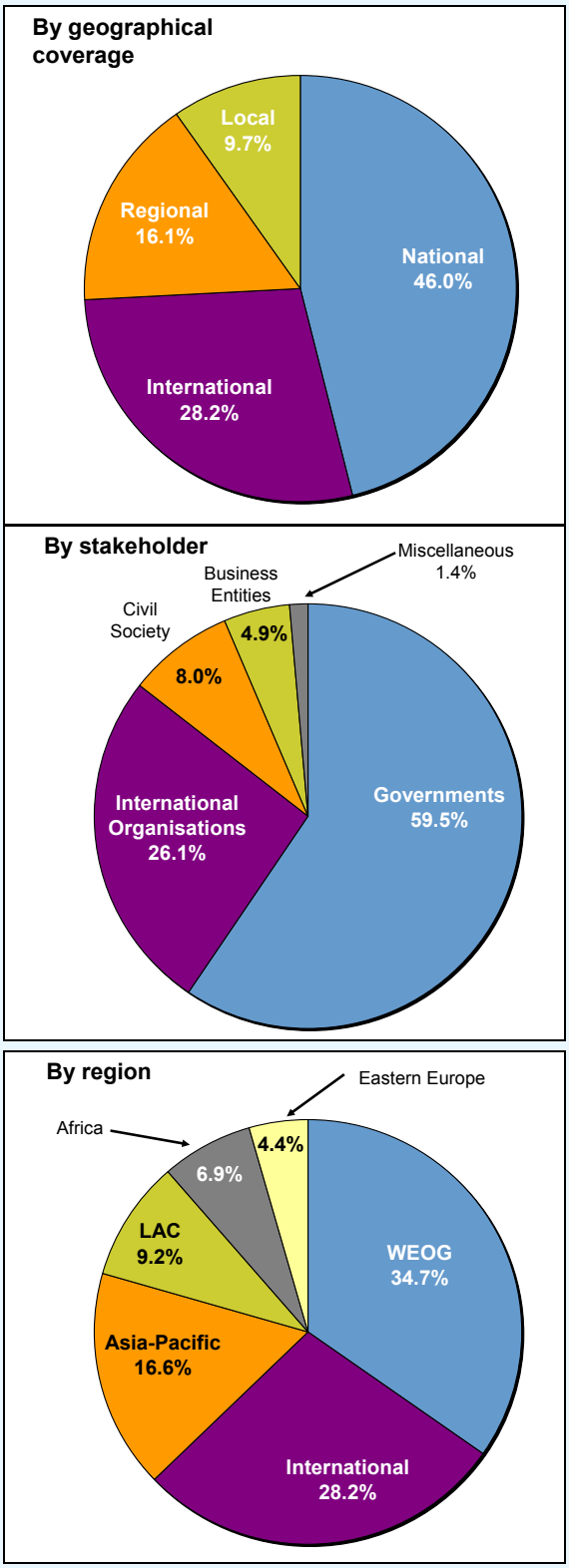
4. The total number of activities submitted by 5 October 2005 was 2'394, of which more then half came from governments and a further quarter from international organisations. The remaining activities were submitted by civil society, business entities and other entities (see Fig. 1). About 46 per cent of the activities submitted were national in scope and nearly a third were international, with the remainder at the local and regional levels. Western Europe and North America accounted for over a third of all submissions by origin (34.7 per cent), with the next most important region being Asia-Pacific (16.6 per cent).

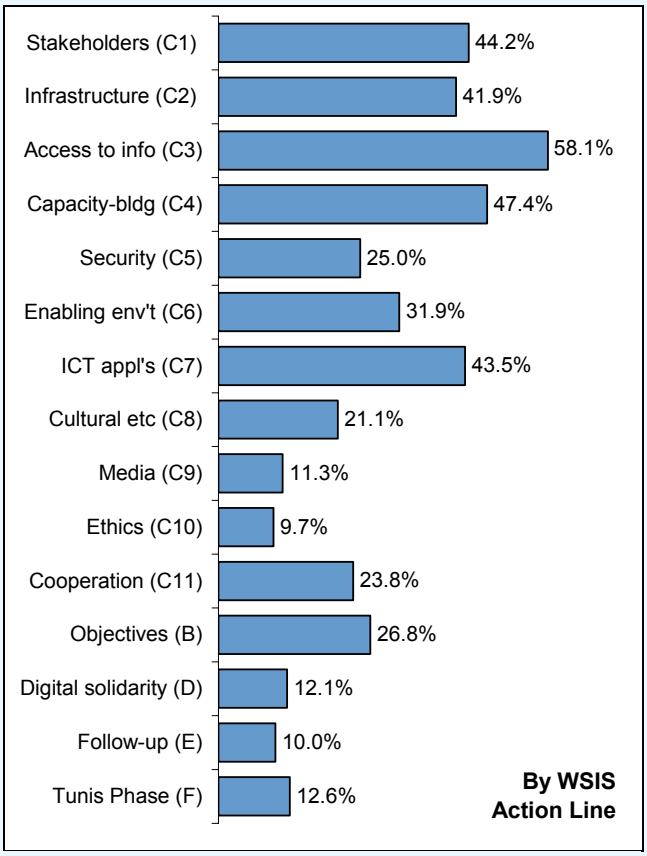
5. Figure 1 (right chart) summarizes the breakdown of activities by action line. C3 (access to information and knowledge) is the most active action line, with relevance to 58.1 per cent of all submitted projects, followed by C4 (capacity-building), with 47.4 per cent. More than 70 per cent of all activities submitted are relevant to the Millennium Development Goals (MDGs; not shown in Table 1). Goal #8—developing a global partnership for development—is the most relevant, with a cross-correlation of 45.3 per cent of submissions, followed by Goal #1—eradicating poverty and hunger—with 17.9 per cent.

0.3 Implementation by WSIS Action Line

6. Table 1 shows the breakdown of submissions by WSIS action line. The role of governments has been particularly significant in WSIS action lines C1 (stakeholders), C2 (infrastructure) and C7 (ICT applications), as well as in section B (objectives) of the Plan of Action. In each of these areas, governments submitted more than two-thirds of relevant projects. The contribution of International Organisations to the implementation of WSIS action lines was relatively high for action lines C6 (enabling environment) C9 (media) and C11 (cooperation), as well as for section E (follow-up) of the Plan of Action. Almost one-quarter of the projects in these areas were carried out by International Organisations. Civil society entities have the highest level of involvement in the implementation of C8 (cultural diversity) and C10 (ethical dimensions), carrying out almost one-fifth of the projects. The involvement of business entities is highest in section D (solidarity fund) of the Plan of Action, accounting for more than one-tenth of the projects.

Figure 1: Breakdown of WSIS-related activities in the stocktaking database
By source, by geographical coverage, by region and by action line.





Source: WSIS Stocktaking Database, based on 2'394 activities submitted at 5 October 2005. Please note, LAC = Latin American and Caribbean states, WEOG = Western European and Others Group. In the right hand chart, the percentages sum to more than 100 per cent as many projects are relevant to more than one action line. UN regional groupings have been used in the analysis.

Table 1: WSIS-related activities by action line

Action Lines	Totals	% of Total	Govts.	Int. Orgs.	Business Entities	Civil Society	Misc.
C1 Stakeholders	1'057	44.2%	67.4%	16.9%	5.6%	8.2%	1.9%
C2 Infrastructure	1'004	41.9%	68.9%	14.5%	6.9%	8.1%	1.6%
C3 Access to information	1'392	58.1%	62.3%	18.5%	6.3%	11.2%	1.8%
C4 Capacity-building	1'135	47.4%	60.7%	20.5%	5.6%	11.4%	1.9%
C5 Security	599	25.0%	63.6%	17.0%	8.2%	8.7%	2.5%
C6 Enabling environment	764	31.9%	62.0%	22.4%	4.3%	9.0%	2.2%
C7 ICT applications	1'042	43.5%	67.1%	15.8%	5.7%	9.8%	1.6%
C8 Cultural diversity	504	21.1%	52.8%	20.2%	6.9%	17.3%	2.8%
C9 Media	271	11.3%	53.5%	23.2%	4.4%	14.8%	4.1%
C10 Ethical dimensions	233	9.7%	51.9%	16.3%	9.4%	19.3%	3.0%
C11 Cooperation	569	23.8%	51.7%	24.8%	7.2%	14.2%	2.1%
PoA B: Objectives	642	26.8%	71.5%	9.7%	6.2%	10.7%	1.9%
PoA D: Solidarity	290	12.1%	62.8%	13.4%	11.4%	11.7%	0.7%
PoA E: Follow-up	240	10.0%	54.2%	24.6%	6.7%	12.9%	1.7%
PoA F: Tunis phase	301	12.6%	55.8%	18.9%	6.0%	15.0%	4.3%

Note: "Totals" shows the number of submissions in the database considered relevant to this action line. The other columns show the percentage of these that came from different stakeholder groups. Analysis based on 2'394 activities submitted as of 5 October 2005. The columns sum to more than 100 per cent, as projects may be relevant to more than one action line at a time.

1 THE ROLE OF GOVERNMENTS AND ALL STAKEHOLDERS IN THE PROMOTION OF ICTS FOR DEVELOPMENT (C1)

7. The WSIS Plan of Action states that the effective participation of all stakeholders is vital for developing the Information Society. Section C1 sets out a series of targets (such as developing national e-strategies by 2005 and having at least one functioning multi-stakeholder partnership in operation by that date), as well as specific tasks (such as exploring the viability of establishing multi-stakeholder portals for indigenous people or developing a national dialogue). Some 986 projects (44.0 per cent) were considered relevant to this action line. This section outlines some of the multi-stakeholder actions that have been launched, as well as initiatives intended to promote ICTs for development.

1.1 National e-strategies

8. Many countries have announced national strategies or are working on them. Examples of national e-strategies are summarized below in Table 2:

- Australia's National Broadband Strategy has been developed through a partnership between the Australian Federal Government and the State and Territory governments to formulate and coordinate policy amongst the different levels of governments. It is hoped that it will lead to improved broadband infrastructure across Australia, ensuring that all Australians have fair and reasonable access to broadband and its benefits, particularly regarding price and location.
- Austria's e-Strategy focuses on principles of accessibility, interoperability, open interfaces, the use of internationally recognized standards, technological neutrality, security, transparency and scalability. Electronic services are offered by organisations, institutions or companies operating in various sectors, such as health, commerce, administration, education, science and culture. The services of public administrations are based on a common set of rules, standards and interfaces, as well as infrastructure.

- In **Benin**, the elaboration of a policy and strategy document for ICTs has been the outcome of an extensive and inclusive process, involving government ministries and other state institutions, the private sector, NGOs and foreign embassies and investors, with the assistance of the UNDP.
- The Government of the **Republic of Bulgaria** has developed the iBulgaria initiative to provide modern and efficient governance to meet the real needs of citizens and businesses, at any time and from any place. The main role of e-government is to meet the general public's needs for high-quality and accessible public services. New types of communication platforms and devices will be established, based on a "one-stop-shop" principle.
- The Information Society Programme in **Finland** was launched in September 2003. The objectives of this programme are fully in line with the outcome of the Geneva phase of the WSIS. The aim of the programme is to boost competitiveness and productivity, to promote social and regional equality and to improve citizens´ well-being and quality of life through effective utilisation of ICTs. The programme also aims to maintain Finland's status as one of the leading producers and users of ICTs in the world. The main mission of the programme is to make the benefits of an Information Society available to all.
- In **Japan**, the Ministry of Internal Affairs and Communications (MIC) is working to develop the policy package necessary to realize a ubiquitous network society, which enables people to access the network easily "anytime, anywhere, with anything and for anyone" , and in which communication is conveniently and freely available. This policy proposal (u-Japan) was discussed at the WSIS Thematic Meeting: "Toward the realisation of a ubiquitous network society" held in Tokyo, 16-17 May 2005.
- The Ministry for Investment, Industry & Information Technology of **Malta** has drafted the National ICT Strategy. The strategy is based on two main tenets: i) The enhancement of the Maltese Information Society and economy, thereby making the Maltese experience a best practice to be followed by other countries; ii) The strengthening of ICTs in government, not only to improve service delivery, but also as a tool to extend democracy, accountability and realize efficiency gains. The strategy is supported by a list of projects in a 'programme of works' document covering 2004-2006.
- In **Mauritania**, with the assistance of ITU, the elaboration of a policy and strategy document for ICTs has been the outcome of an extensive and inclusive process, involving government ministries and other state institutions, international organisations, private sector, NGOs and investors.
- **New Zealand's** Digital Strategy is about creating a digital future for all New Zealanders, using the power of ICTs to enhance all aspects of our lives and realise economic, environmental, social and cultural goals. It is built around the key enablers: **Content** (information we can access that can enrich the quality of our lives); **Confidence** (the skills to use ICTs and a secure environment in which to do so); **Connection** (getting access to and using ICTs); and the roles of the agents of change: **communities**, **business** and **government.**
- In **Norway**, the Ministry of Modernisation has announced its "eNorway 2009 – the digital leap" programme, which is intended to support government policy for financial growth and increased value creation, prosperity and welfare development and change in the public sector.
- **Oman** has created its Digital Oman Society and e-Government strategy, which was approved by the Ministerial National Information Technology Committee on 30th November 2002. It reflects the adoption and integration of digital technologies at home, work, education and recreation.
- For **Poland**, one of the key challenges of the ePoland strategy for the development of the Information Society, 2004-2006, is to develop a competitive, knowledge-based economy to improve the quality of its citizens' lives. Priority is given to public administration services and the development of diverse and valuable Internet content. The initial aim is that every secondary school graduate in Poland should be able to work with a computer and the Internet and should be aware of the advantages of electronic communication. A secondary aim is to make teleworking more widespread.
- In May 2005, **Singapore** initiated iN2015, Singapore's 10-year masterplan, to grow the infocomm sector and to use infocomm technologies to enhance the competitiveness of key economic sectors and build a well-connected society. The development of 'iN2015' is a national co-creation effort by all who have a stake in Singapore. It will identify new possibilities for Singapore's industries, economy and society

through the innovative use of infocomm technologies. The iN2015 masterplan is scheduled to be launched in 2006.

- On 20 November 2002, the Government of **Sri Lanka** launched a national ICT programme (e-Sri Lanka), with the objective of using ICTs to foster social integration, peace, growth, and poverty reduction. This will be achieved by using ICTs to improve the reach and responsiveness of public services, reduce transaction costs to business, make government more transparent and accountable and address the urgent needs of poor communities and isolated regions.
- On 4 August 2004, the Government of **Samoa** agreed a national ICT strategy (e-Samoa) with the vision of making ICTs available to every Samoan. The national policy has four guiding principles focussing on: human resources; infrastructure development; cooperation between stakeholders; and appropriate policy and regulation. It is the outcome of a consultation process started in 2002, when a National ICT Committee was established. The members of the Committee have participated actively in the WSIS and consulted extensively with the wider community of business entities, NGOs, village mayors and presidents of all the women's committees in Samoa.

1.2 Mainstreaming ICTs for Development in International Organisations

9. The Plan of Action calls upon relevant International Organisations and financial institutions to develop their own strategies for the use of ICTs for sustainable development and for achieving the goals expressed in the United Nations Millennium Declaration. Examples include:

- The **International Trade Centre** (ITC), a joint agency between UNCTAD and WTO, has developed the e-Trade Bridge Programme, based on its e-Facilitated Trade Development Strategy, to help Small and Medium-sized Enterprises (SMEs) bridge digital divides in the area of international trade. The programme assists enterprise managers, administrators of multiplier organisations and government policy-makers to better understand and apply ICT-based tools and services in day-to-day business to improve competitiveness. The programme's activities currently cover 30 countries.
- The **International Telecommunication Union** (ITU), the UN specialised agency with the leading managerial role in the administration of the WSIS, has established a Council Working Group on WSIS (WG-WSIS) to advise it, *inter alia*, on how ITU might further adapt itself to the Information Society. The Group's report will be discussed at Council, before being forwarded to the Plenipotentiary, and should help shape the ITU's 2008-2011 strategic plan and help it to further its goal of extending the benefits of new telecommunication technologies to all the world's inhabitants.
- The **United Nations Conference on Trade and Development** (UNCTAD) assists developing countries in formulating and implementing national ICT policies and strategies that will promote e-business, export capacity and competitiveness, by means of sector-specific policies, training programmes and the deployment of ICT tools. UNCTAD is a partner of the global e-policy resource network (ePol-NET), which also provides assistance to developing countries in implementing national ICT policies.
- The **United Nations Information and Communication Technologies Task Force** (UNICTTF) organized a Global Forum on "Promoting an Enabling Environment for Digital Development" during 19-20 November 2004 in Berlin. This international conference discussed policy regulation, financing and the role of different stakeholders in creating an enabling environment for digital development. The Forum was an input to the WSIS process (via the Task Force on Financial Mechanisms), contributed to the implementation of the Plan of Action, and raised awareness about the role of ICTs in achieving the goals expressed in the Millennium Declaration.
- The **World Bank Group** is playing a considerable role in financing ICT applications for governance and government services through a broad range of instruments. In particular, it helps governments to design and implement their ICT development policies. The World Bank's support for ICT-related activities is provided through sector-specific projects (such as an education project for ICTs in schools), which is one reason for the difficulty of quantifying this involvement. Nevertheless, support for ICT applications has been estimated at approximately US $1 billion a year.

Table 2: Examples of national e-strategies submitted to the stocktaking database

Country	Name of national e-strategy and URL	Ministry or agency involved
Argentina	National Programme for the Information Society (www.psi.gov.ar/).	Ministerio de Planificatión Federal, Inversión Publica y Servicios
Austria	Virtual e-Services (http://www.cio.gv.at)	Chief Information Office
Azerbaijan	National ICT Strategy, 2003-2012 (http://www.nicts.az/)	Ministry of Communications and Information Technologies
Bangladesh	Hub for ICT policy (www.mosict.gov.bd)	Ministry of Science and ICTs
Colombia	Connectivity Agenda (www.agenda.gov.co/)	Ministerio de Comunicaciones
Costa Rica	National Commission on Technology and on ICTs (www.micit.go.cr/comisiones/conatic.htm)	Ministerio de Ciencia y Tecnologia
Croatia	e-Croatia 2007 (http://www.e-hrvatska.hr/ehrvatska/)	Central Government Office
Dominican Republic	National Commission for the Society of Information and Knowledge (http://www.edominicana.gov.do)	Instituto Dominicano de las Telecomunicaciones (INDOTEL)
El Salvador	National Commission for the Information Society (http://www.rree.gob.sv/)	Ministerio de Relaciones Exteriores
Finland	Finnish Information Society Programme (http://www.tietoyhteiskuntaohjelma.fi/)	Prime Minister's Office
Honduras	WSIS Declaration and Plan of Action within the "Marco Law" (http://www.conatel.hn/)	Regulatory agency, CONATEL
Hungary	Hungarian Information Society Strategy (HISS) (http://en.ihm.gov.hu/strategy)	Ministry of Informatics and Communications
Indonesia	Preparation of the National e-Strategy for Indonesia (http://www.kominfo.go.id/)	Ministry of Communications and Information
Jamaica	National Information and Communications Technology (ICT) Strategy (http://www.cito.gov.jm/)	Central Information Technology Office (CITO)
Kenya	Electronic Government (E-Government) (http://www.kenya.go.ke/)	Office of the President
Lebanon	E-Government Strategy (http://www.omsar.gov.lb/)	Office of the Minister of State for Administrative Reform
Lesotho	National ICT Policy (http://www.lesotho.gov.ls/articles/2004/)	Ministry of Communications, Science and Technology
Luxembourg	E-Luxembourg Programme (http://www.eluxembourg.lu/)	Service des Médias et des Communications / Ministère d'Etat
Malawi	Malawi ICT Policy (http://www.malawi.gov.mw/Publications.htm)	Dept. of Information Systems and Transport Management Services
Qatar	National Strategic Vision for the ICT Sector (http://www.ict.gov.qa/en/Default.aspx)	ictQatar
Serbia and Montenegro	National Strategy for Information Society (http://www.mntr.sr.gov.yu/)	Ministry of Science and Environmental Protection
Slovakia	Strategy for Building the Information Society in the Slovak Republic (http://www.telecom.gov.sk/)	Ministry of Transport, Posts and Telecommunications
Switzerland	Information Society Strategy (http://www.infosociety.ch/site/default.asp)	Federal Council
Syrian Arab Republic	ICT strategy for social and economic development	Syrian Telecommunication Establishment (STE)
Turkey	Information Society Strategy (http://www.bilgitoplumu.gov.tr/)	Information Society Dept. of the State Planning Dept.
Uganda	Development of an e-government strategy (http://www.miniworks.go.ug/)	Ministry of Works, Housing and Communications
Viet Nam	Post and telecommunications development strategy until 2010, and orientation until 2020 (http://www.mpt.gov.vn/)	Ministry of Posts and Telematics (MPT)

Note: Additional examples of national e-strategies are covered in section 1.1 and elsewhere in this report.
Source: WSIS Stocktaking Database at www.itu.int/wsis/stocktaking.

1.3 Establishing functioning Public/Private Partnerships and Multi-Stakeholder Partnerships in developing and implementing national e-strategies

10. The WSIS Plan of Action encourages each country to establish at least one functioning Public/Private Partnership (PPP) or Multi-Stakeholder Partnership (MSP) by 2005 as a showcase for future action. As of 20 August 2005, just over half the activities submitted to the database were of a multi-stakeholder nature, with partnering being especially common (almost 90 per cent) amongst projects from civil society (see Figure 2). Examples of these partnerships include:

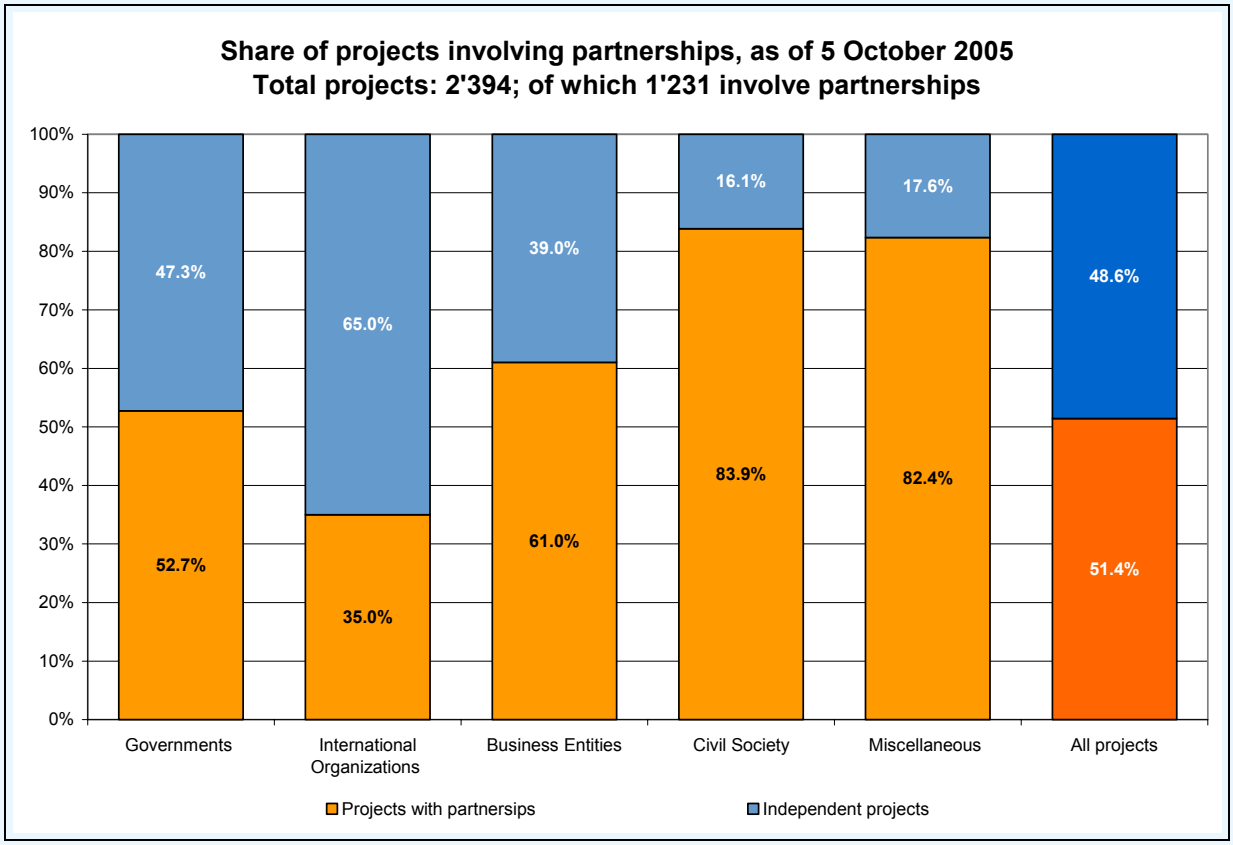
- As a supporter of multi-stakeholder partnerships and the resource network of ePol-NET, the **Canadian ePolicy Resource Centre** (CePRC) collaborates with international initiatives in helping African countries to develop strategies, policies and regulations on ICTs.
- **Chile** has established a Digital Action Group as a public/private initiative for developing a "digital agenda" for the country.
- **Lebanon** has formed a national working group composed of members from all ICT stakeholders and is working on the follow-up of the Geneva phase of WSIS, as well as preparing contributions to the Tunis phase.
- The ICT Agenda of the **Netherlands** was adopted on 23 February 2004. The Dutch vision is: Better use of ICTs and top-quality ICTs. The Dutch Government is ambitious to lead the way in a substantive increase of ICT use. The Smart Community International Network (SCIN) seeks to actively promote and support international exchange and cooperation, resulting in bilateral and multilateral agreements, joint research and development activities, as well as international business and investment opportunities for the private sector.
- **Slovenia** has established the Slovenian Forum for the Information Society.
- The Catalysing Access to ICTs in Africa (CATIA) project (see Box 1).
- The Communications Consultative Committee (CCC) of **Tonga** was established under the Communications Act 2000. It comprises all ICT stakeholders in Tonga, providing advice to the Minister and the Department of Communications. The CCC is a valuable tool not only in the consultative process, but also as a direct channel for implementing and monitoring major ICT activities in Tonga.
- The Global e-Schools and Communities Initiative was launched as a result of the work of the **UN ICT Task Force**.

Box 1: Catalysing Access to ICTs in Africa (CATIA)

CATIA is a three-year program of the **United Kingdom Department for International Development** (DFID) in close collaboration with other donors and role players (such as the **Swedish International Development Cooperation Agency** (SIDA), the **Canadian International Development Agency (CIDA)**, the **US Agency for International Development (USAID)**, the **International Development Research Centre** (IDRC), **OneWorld network**, **AMARC Africa**, **Panos Institute**, **Cisco Systems** Inc., and **ATOS KPMG Consulting - South Africa**).

Since its launch in 2003, CATIA's primary goal has been to enable poor people in Africa to take advantage of ICTs and capitalize on their potential to act as a catalyst for sustainable change in terms of enhanced social, economic and local content development. CATIA deploys a number of strategic activities to improve affordable access to the full range of ICTs, from Internet to community radio, in order to effectively and efficiently connect African communities to global development perspectives. The programme's centres of expertise in ICT policy play a leading role in developing the capacity of African stakeholders to contribute to international decision-making on ICT policy and practices as well as to promote ICTs in the development and implementation of multi-stakeholder national policy, building capacity in African countries.

Figure 2: Multi-stakeholder projects



Source: The WSIS Stocktaking Database.

- The **Satellife Global HealthNet** network, established in 1991, provides a network of some 10'000 members with e-mail access and a library of web-based health information. The original technology used was low-earth orbit satellite, but it has since moved on to make use of the best connectivity available in different member countries, including Eritrea, Ethiopia, Kenya, Nepal, Uganda and Zimbabwe. HealthNet's members include charitable foundations (like the Digital Partners Foundation and the Lewinson Family Fund), individuals (like Princess Catherine Aga Khan), private companies (like PalmOne and Skyscape) and medical publishers. HealthNet also works with the government health departments in member countries.

- The **Uganda** VillagePhone Initiative is intended to create opportunities for poor rural individuals, especially women, to become "Village Phone Operators" operating a payphone. The project is based on the well-known VillagePhone project pioneered by Grameen in Bangladesh, which has provided services to over 39'000 villages, and employment to some 45'000 women phone operators ("VP ladies"). Grameen Foundation USA is one of the partners, along with the cellular operator, MTN Uganda (which provides special airtime rates), Uganda Women's Financial Trust and Uganda Microfinance centre. Profiles of some of those who have been provided with an income are shown in Box 2.

1.4 Other examples

11. The following are additional examples of multi-stakeholder activities submitted by international organisations, private businesses, civil society entities and others:

- **Computing Technology Industry Association** (CompTIA): The critical role of the software industry in Latin America;
- **Council of Europe**: The challenges of e-learning and distance education;
- **European Conference of Ministers responsible for Regional/Spatial Planning** (CEMAT): Spatial Planning;
- **International Steering Committee for Global Mapping** (ISCGM): Global Mapping;
- **UNIDO** (United Nations Industrial Development Organisation): UNIDO's promotion of ICT activities;
- **UNU** (United Nations University): Designing the knowledge economy;
- **UPU** (Universal Postal Union): Bucharest World Postal Strategy (BWPS)-UPU Strategic Planning for 2005-2008;
- **WTO** (World Trade Organisation): Negotiations on telecommunications services.

2 INFORMATION AND COMMUNICATION INFRASTRUCTURE: AN ESSENTIAL FOUNDATION FOR THE INFORMATION SOCIETY (C2)

12. The WSIS Declaration recognises that connectivity is a central enabling agent for the Information Society. Activities submitted to the stocktaking database under this theme suggest the following trends:

- deployment and expansion of broadband access networks (both wired and wireless technology);
- deployment and upgrading of fibre optic backbone networks;
- convergence of networks, allowing both one-to-one and one-to-many communications to be delivered over common platforms;
- the proliferation of wireless networks, which are especially important in developing countries where the fixed-line network may be more limited in coverage;
- increased access points for Internet access (e.g., PCs in schools, telecentres, cybercafés, etc.) and a wider range of technologies for access (fixed, wireless, satellite).

2.1 Infrastructure Projects

13. Some 40 per cent of projects submitted to the database mention infrastructure projects. These include:

- In **Burkina Faso**, the Ministry for Post and Telecommunications has committed to the installation of basic broadband infrastructures for a public voice, network including into rural zones. A national 1'000 km optical fibre data link will be created and connected to an underwater cable, via bordering coastal countries. ADSL and Wi-Fi access to high-speed Internet will also be introduced.

Box 2: Profiles of Village Phone Operators in Uganda

- Ms. Sophia Nalujja has been a successful borrower from the Uganda Women's Finance Trust Limited (UWFT) for many years and is currently in her fifth loan cycle. Married with seven children, she runs a small eating establishment in the village of Kiwangula in the Kayunga district. Through all of her business ventures, she now earns around 280'000 Ugandan Shillings (US$160) per month. Previously, working as a farmer, she earned less than a fifth of that amount.
- Ms. Josephine Namala owns a small retail shop in the remote village of Lukonda in the Kayunga district. Before she began operating her villagePhone business, people in her community had to walk more than 5km to make a phone call. In the evenings, large groups of people gather in front of her store with FM radios to listen to call-in radio shows; they use her village phone to call the radio stations and make their opinions heard nationally.

Source: Uganda villagePhone initiative.

- In the frame of the Compartel Programme, the Colombian Ministry of Communications provides adequate telecommunication infrastructure to rural and low-income communities through community programmes for telephony, Internet and broadband.
- **Costa Rica** is gradually bridging the digital divide thanks to the special programme, Advanced Internet Network.
- In **Guyana**, Broadband Inc has committed to develop a Nationwide Network that will provide broadband Internet and voice to 90 per cent of the nation's populated communities, mining towns and Amerindian villages.
- In **Norway,** the Norwegian Posts and Telecommunications Authority is responsible for the Norwegian Internet Infrastructure.
- In **Peru**, a programme of Rural development of Information and Communication Technologies (ERTIC) has been established.
- In **Serbia and Montenegro**, the Ministry of Science and Environmental Protection is building an academic ICT backbone. It runs through four regional centres and 14 cities, with the central node located at the University of Belgrade.

2.2 Convergence of networks

14. The WSIS Declaration of Principles calls for a "well-developed information and communication infrastructure". A number or projects support infrastructure modernization and are exploiting trends towards network convergence.

- **Kuwait** runs diverse projects aimed at improving information and communication infrastructure. For instance, in the framework of Fibre-optic Cables between Kuwait and Saudi Arabia project or the Gulf Fibre-optic Cable project, Kuwait intends to provide a high bandwidth link between the Gulf and Arab countries, upgrade the capabilities of Internet communication, as well as providing international services such as Internet , data communication.
- A Gigabit Ethernet connection project aimed at making the Internet more widely available to the public is underway in **Lebanon**.
- The **Malawi Communications Regulatory Authority** has submitted a project proposal addressing various areas of the communications sector, which aims at improving information flow to catalyse social, economic and political development. This includes, *inter alia*, extending the coverage of public radio and TV signals, the installation of a Wireless LAN link-up of all government offices, and the introduction of multi-purpose community telecentres in post offices.
- In **Morocco,** the telecommunications regulatory agency, ANRT, is carrying out a study to establish the feasibility of setting up call centres as a way of stimulating economic development and creating jobs.

2.3 Broadening access (ICTs for all)

15. The WSIS Declaration of Principles contains a commitment to transform the "digital divide into a digital opportunity for all". A number of projects relate to this goal of broadening access to ICTs. A number of different telecentre projects around the globe are summarized in Box 3.

2.4 International and regional cooperation

16. Many of the projects targeting infrastructure development and modernization involve international and regional cooperation. Examples include the following:

- The Asia-Europe Meetings on e-commerce, the fourth of which was hosted by the Foreign and Commonwealth Office of the **United Kingdom**, provide a multilateral forum for action-orientated debate between the EU Member States and Asian partner countries. An important aspect of this trade facilitation initiative is to identify ways of increasing the use of online technologies in business.

Box 3: Establishing telecentres around the globe

Brazil has significant experience in promoting the establishment of telecentres. Through its Digital Inclusion Program, the Ministry of Social Development and Fighting Hunger (MDS) is promoting the creation of a Telecentre Network through the installation of telecentres in almost 6'000 Brazilian municipalities, especially in institutions representing or supporting small- and medium-sized enterprises, with the purpose of improving the competitiveness of Brazilian enterprises, employment and income. Other MDS programmes encourage Brazilian NGOs and other non-profit civil society stakeholders to set up telecentres in areas with low IT penetration. Interested institutions and organisations fulfilling the necessary criteria may receive a donation of 10 computers each. Moreover, the Brazilian Ministry of Development, Industry and Trade (MDIC), in cooperation with the Brazilian Army, is equipping 34 telecentres along Brazil's Amazon border zone. The Brazilian Government encourages the private sector to donate hardware in exchange for becoming a partner institution in Brazil's Hunger Zero Program, thus gaining tax-exempt status and contributing to social mobilization within the business and industrial sectors.

The **Republic of Colombia** is promoting the creation of telecentres as an effective way of enlarging the Colombian Information Society. In the framework of Compartel (Social Telecommunication Programme), the Ministry of Communications, *inter alia*, intends to install 1'097 telecentres in metropolitan areas and 359 telecentres in rural areas with over 1'700 inhabitants. Approximately 4.7 million citizens now have access to ICTs. USD 58 million, financed from the Communication Fund, was invested in the deployment and maintenance of this infrastructure for six years. **Romania** also recognises the great importance of telecentres in bringing electronic communication services to rural areas. In 2004, the National Regulatory Authority for Communications of Romania (ANRC) launched a project for the installation of telecentres, offering public community access to telephone, Internet and fax services, in villages that have very limited access, or no access, to electronic communications services. The projects are awarded by public tender and are financed through a Universal Service Fund, constituted from contributions paid by market players. During 2004, ITU provided technical assistance support to this project, by training the human resources of ANRC on the use and benefits of telecentres in the rural communities, as well as by identifying ways to attract local authorities' support. In 2005, ITU will continue to provide technical assistance, focusing on identifying the most viable financial model for the telecentres and organising a public information campaign to present the benefits of using telecentres for the development of the rural communities.[5]

In the framework of the special €30 million programme "Rural Internet", **Spain** intends to promote broadband internet access in those rural areas that still remain out of coverage of conventional access technologies such as Digital Subscriber Line (DSL) or cable. More than 3 million citizens in 1'500 rural municipalities will benefit from this initiative using the new public telecentres where Internet access is free of charge. Moreover, through the additional project "Internet in Libraries", the Spanish Government intends to assure broadband connectivity for 4'000 public libraries in the country and to convert them into public Internet access centres via wireless hotpots.

Sudan's experiences demonstrate that telecentre initiatives can also come from the private sector. SUDATEL, Sudan's incumbent telecom company has developed telecentres to provide access to ICTs, particularly in remote and rural areas, in cooperation with many public and private institutions, international donors, and community organisations. Telephony is the main service, but other services are also offered, including fax, Internet, telemedicine, tele-education and photocopying.[5]

Switzerland's SDC, in the framework of a new programme, established the portal telecentre.org in order to catalyze and strengthen telecentre networks around the world. These networks help the people who make telecentres flourish – trainers, managers, volunteers, facilitators, information brokers, and technicians – to solve problems, share resources and support each other. Telecentre.org social investments will support networks in four areas: convening stakeholders, knowledge sharing, network capacity, innovation.

Source: Adapted from ITU/KADO "Multi-stakeholder partnership for bridging the digital divide" and the stocktaking database.

- The **APEC Telecommunication and Information Working Group** runs several projects relevant to regional information infrastructure development to meet the needs of Asia-Pacific Economies, including: Wi-Fi Connectivity in Rural and Remote Communities: Bridging the Digital Divide; Asia-Pacific Grid Implementation Project; APII Test Bed Project; Overview of IPv6: Bridging the Digital Divide; and the APII Technology Centre Project.

- The **Commonwealth Telecommunications Organisation (CTO)** and **ITU** have worked together to develop a three-part universal service model covering universal access/service policies, regulations and procedures, in order to help countries devise appropriate universal access policies and strategies over the next two years.

- The **European Commission, DG Information Society**, has created the Information Society Technologies thematic priority as part of the EU's R&D Programme. It aims at wider adoption, broader availability and the extension of ICT applications and services to the economic and public sectors, as well as to society as a whole.

- In India, the **Canadian International Development Agency (CIDA)** is providing funding for training, the dissemination and establishment of a sustainable model of community-based ICTs in rural areas. The project connected ten villages near Pondicherry in Southern India, with the help of a hybrid wired and wireless network (comprising PCs, telephones, VHF duplex radio devices, and e-mail connectivity through dial-up telephone lines) that facilitated voice and data transfer, and enabled villagers to find the essential information they needed to improve their livelihoods.

- The **Institute for Connectivity in the Americas** is promoting the E-Link Americas: Satellite Connectivity Project for Latin America and the Caribbean (see Box 4).

- The **International Civil Aviation Organisation** (ICAO) has developed a Master Plan to ensure that all infrastructure, application, and security components throughout ICAO are interoperable with each other and with other entities. The Master Plan also seeks to ensure that components are reliable and maintainable, are based on open-standards, support web-enabled business processes, support interoperability with other United Nation sites and allow for improved interoperability with customers.

- The **International Telecommunications Satellite Organisation (ITSO)** has launched a Global Broadband Satellite Infrastructure Initiative (GBSI Initiative) in the context of WSIS. The GBSI Initiative was launched to define a concrete action plan to transform the "digital divide" into "Digital Opportunities". It aims to redress the unequal distribution of telecommunication infrastructure between regions and countries, and between urban and rural areas: this will be achieved through an innovative public-private sector partnership, which will prepare a GBSI that will provide high-speed Internet services. This responds, in particular, to para 9d of the WSIS Plan of Action.

- In **Senegal**, the UN Capital Development Fund is undertaking, in partnership with Alcatel and IDRC, a joint initiative to address research needs in the fields of local governance and ICTs for local development in the departments of Kebemer (Lougo Region) and Kaffrine (Kaolack Region). The initiative will be replicated in Bangladesh.

- The **UN Economic and Social Commission for the Asia-Pacific** (ESCAP) has developed a Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP). One area of focus is satellite communications for connectivity and promoting public-private partnerships to extend the benefits of satellite communications. RESAP also aims to improve connectivity, affordability, accessibility and the range of usable products and services and to benefit underserved communities in Asia and the Pacific.

- The **UN Economic and Social Commission for Western Asia** (ESCWA) has established a pilot project on ICTs for poverty reduction in selected ESCWA member countries. The pilot project aims to: enhance quality of life; create employment and empower people through the development of community access points (such as Multipurpose Technology Community Centres - MTCC); and support small and micro enterprises (SMEs) through ICTs. In line with this project, ESCWA deployed a website on **Modern Technologies for Employment Creation and Poverty Reduction in the ESCWA Region** in April 2005.

- **Industry Canada** and **ITU** are currently supporting a series of actions implemented by the **International Institute for Telecommunications** (IIT), Montreal, Canada, for the benefit of the African and Arab Centres of Excellence and related communities of technical managers and executives. These actions take place since 2004 in the framework of the ITU's **Tap-on-Telecom Project**, providing access to the remote IIT technical platform through a broadband IP-based link.
- The **World Meteorological Organisation** (WMO) is developing a Future WMO Information System (FWIS) with the objective of establishing a single, coordinated infrastructure for the collection and sharing of weather, water and climate information, using cost-effective telecommunication services, e.g. Internet and satellite systems. The main achievements thus far include the development of WMO metadata standards and the improvement of the Global Telecommunication System of the World Weather Watch, through the use of managed data communication services, Internet and satellite systems.
- Study Group 3 of the **ITU's Telecommunication Standardization Sector** is in charge of developing recommendations on tariff and accounting principles. This Study Group has developed a set of recommendations and guidelines on "International Internet Connectivity" to facilitate negotiation and bilateral commercial arrangements enabling direct international Internet connections. The high cost of the international circuit for Internet connectivity between least developed countries and the Internet backbone networks remains a serious problem for these countries and there is a need to build out regional network access points and support the initiatives of small networks.

3 ACCESS TO INFORMATION AND KNOWLEDGE (C3)

3.1 Policy and Legislation

17. The WSIS Plan of Action states that "Individuals, organisations and communities should benefit from access to information and knowledge". This goal can be supported through government policy and legislation. For instance:

- The liberalization of telecommunications services through deregulation, licensing of new operators, privatization etc (e.g., **Egypt**, **Lebanon**)
- The adoption of strategies to improve existing ICT infrastructure dramatically and to reduce the digital divide (e.g., **Azerbaijan**, **Burkina Faso**, **France**, **Lithuania**, **Malawi**, **Netherlands**, **Spain** - see also Table 1).
- By providing incentives to spur the growth of an innovative Information Society (e.g., **Bangladesh**, **Bulgaria**, **Lesotho**).
- By developing laws addressing particular aspects of cyberspace, such as action against spam, on security, or on facilitating online financial transactions (e.g., **Indonesia**).
- By requiring government departments to post policies and legislation online to increase the availability of information to the public and other interested parties (e.g., **Pakistan**).

3.2 Information access

18. Access to information makes up the bulk of the projects that are relevant to action line C3. A few

Box 4: E-Link Americas

E-Link Americas is a landmark project aimed at connecting remote and underserved areas in Latin America and the Caribbean using low-cost high-speed internet in order to develop economic tools and new social practices. Satellite and terrestrial wireless technologies are used to deliver affordable, self-sustaining, internet access to municipalities, universities, schools, hospitals, telecentres and other community-based organisations in the region. Helping communities gain access to online medical and educational resources as well as to e-government services for all citizens, e-Link contributes to social and community development, in particular in rural areas.

Partners of this initiative for enhanced access to information and knowledge include **E-Link Americas**' supported by the **Canadian International Development Agency** (CIDA), the **World Bank**, the **Organisation of American States** (OAS), the **Institute for Connectivity in the Americas** (ICA), and the **International Development Research Centre** (IDRC).

examples include:

- Government websites providing information to pilgrims (e.g., **Bangladesh**, **Pakistan**).
- Government portals enabling citizens to find information or to obtain forms previously available only from government offices (e.g., **Australia**, **Barbados**, **Bangladesh**, **Bolivia**, **Canada**, **Colombia**, **Lebanon**, **Tunisia**).
- Local government portals allowing information retrieval from government agencies (e.g the Baluchistan Government Portal, **Pakistan**).
- The production of CD-ROMs facilitating information access: for instance, to improve medical access (e.g., **Australia**);
- Interactive websites with information accessible to the citizens, enabling feedback on governmental initiatives (e.g., **Brazil**, **Bulgaria**, **Nicaragua**, **Spain**).
- The exchange of knowledge and applied scientific and cultural data to users according to environmental need assessments in cultural, artistic, social, athletic, nutritional and historical fields (e.g., **Iran**)
- The development of an Internet web-portal, to share the databases of European metal producers and suppliers as well as information about technical properties (e.g., **Ukraine**).

3.3 Research & Development (R&D)

19. The WSIS Plan of Action calls for R&D to improve access to information and knowledge, especially on new forms of networking, and to facilitate the accessibility of ICTs for people with disabilities and other disadvantaged groups. Examples of R&D projects include:

- Studies into the feasibility and ways of implementing ubiquitous networks (e.g., **Japan**, **Republic of Korea**).
- Providing universities and research institutes with computers and high-speed Internet connectivity to facilitate their participation in the Information Society (e.g., **Bulgaria**, **Cameroon**, **Thailand**).
- **Rays of Hope Stiftung**, a Swiss-based foundation, is undertaking the detection, monitoring, and control of the killer secondary infections that arise from HIV Aids, as well as diagnostic imaging of fractures (currently available in only a limited form in developing countries).
- **The Accessible Compartel Project** in **Colombia** allows close to 58 per cent of the population with visual disabilities to have access to information and communication services using specialized software. It is being implemented in 100 of the municipalities in Colombia that have the highest density of inhabitants with visual disabilities.
- Map-based graphics software is helping to improve educational policy-making by showing the density of schools in different areas in **Bangladesh**.

3.4 Community Centres

20. The WSIS Plan of Action calls upon Governments and other stakeholders to establish "sustainable multi-purpose community public access centres, providing affordable or free-of-charge access for their citizens …". Many countries have already done so, including **Armenia**, **Brazil**, **Cameroon**, **Canada**, **Lebanon**, **Morocco**, **New Zealand**, **Togo** **and** **Uruguay**. For instance:

- In **Indonesia**, the Ministry of Communications and Information has established a system of Community Access Points (CAP: Pusat Informasi Masyarakat) as part of the government's efforts to spread ICTs throughout the country by implementing selected projects in support of different segments of Indonesian society, e.g. women, educational institutions, blind persons, farmers, etc.
- The **Korea Agency for Digital Opportunity** (KADO) in partnership with the private sector (**Microsoft Unlimited Potential** programme), and with support from the Korean Government and other

philanthropic initiatives, has established 20 community-based technology and learning centres across the Republic of Korea.

3.5 Software and open access

21. More than 20 projects have been submitted on the development of free/libre and open source software (FLOSS) and a further ten on open access, for instance, to scientific journals. These include:

- The **Public Knowledge Open Access** project, which is intended to provide free, open access online information, free of most copyright and licensing restrictions.
- **Molecular Diversity Preservation International**, a Swiss-based Not-For-Profit organisation for the deposit and exchange of molecular and biomolecular samples, including through a series of Open Access Journals.
- Open source development centres to support prospective open source software developers (e.g., in **Canada**, **Pakistan**).
- The development of software to help people with disabilities to access information, complemented by policies to enforce the accessibility of information to disadvantaged groups (e.g., the ASEANNet knowledge-sharing network on universal design and assistive technology, hosted by NECTEC of **Thailand**).
- Using open source software to promote the low-cost availability of government documents online (e.g., the Fedlink virtual network run by the **Australian Government Information Management Office**).
- **UNESCO's Free Software portal**.

3.6 Digital Libraries and archives

22. The WSIS Plan of Action provides support for digital public library and archive services, adapted to the Information Society. Digital libraries include:

- A compilation of success stories on libraries at the heart of the Information Society, available from the **International Federation of Library Associations and Institutions**.
- Several **UNESCO** projects aimed at extending access to libraries, notably in the Pacific region and in South-East Asia.
- The **Jamaica Library Service Wide Area Network** project.
- The digitization of existing library resources making literature accessible to the public over remote access (e.g., in **Iran**, **Poland**, **Spain**).

4 CAPACITY-BUILDING (C4)

23. The WSIS Plan of Action states that "Everyone should have the necessary skills to benefit fully from the Information Society." Just under half of the activities that were submitted are relevant to capacity-building.

4.1 ICT Literacy

24. Given the increasing use of ICTs, the need for ICT literate personnel is vital.

- In **Bulgaria**, computer education and ICT awareness are being stimulated by networking schools together.
- In **Indonesia**, the Ministry of Communications and Information has established a set of Government Standard Competence criteria which establishes the levels of competence needed from civil servants and which may be used to set standards for ICT competence in other sectors of the economy.

Box 5. Sushiksha - India

The Sushiksha Project is a functional literacy program initiated by the **Institute for International Social Development** (IISD). As illiteracy is often coupled with poverty and vulnerability, the project addresses a wide spectrum of social demands on multiple levels: primary and continuous education, women's economic self-reliance, youth orientation and environmental sustainability awareness. ICT tools are given priority to build strategies for development based on the local context and taking in consideration the specific needs of local communities.

Started for the first time in 1996, the project had an impact on at least 50,000 slum dwellers in the Kolkata and Midnapores district of West Bengal, India. Integrating local spiritual practices but irrespective of the age, cast and creed of the project's beneficiaries, Sushiksha deploys ICT skills training as a means of addressing further goals. Such goals include the enhancement of material development and the improvement of mental power of the local population through wider access to knowledge resources and better opportunities for professional accomplishment and global integration.

- Specific programmes to promote digital literacy are on offer in several countries (e.g., **Colombia**, **Lebanon**, **Libya**, **Singapore**, **Spain**, **Switzerland**, **Uruguay**).
- In **Thailand**, the Ministry of Information and Communication Technology has launched the **Computer for Thai Children's Development Programme** to promote the donation of brand-new and used PCs to rural schools.
- In **Trinidad and Tobago**, the Ministry of Education deploys computers in primary schools in order to facilitate the process of integrating computer science and ICTs within school curricula.
- Achieving E-Quality in the ICT Sector is a regional project organized by the United Nations Development Fund for Women-Arab States Regional Office. The project aims to empower women to influence and benefit from the ICT sector through building their technical and soft skills by providing them with cutting-edge IT network training along with market-required soft skills. It serves to link IT graduates to local and regional ICT job markets, ensuring equal opportunities in the ICT sector and creating a positive policy environment that is more aware of the benefits of women's full inclusion in the ICT sector.
- The Sushiksha project in India (see Box 5).
- **ITU**, in partnership with the **European Commission**, has implemented a number of centres that focus on providing ICT opportunities to communities in developing countries, especially African LDCs. This basic ICT curriculum, donated by the Microsoft Unlimited Potential, provides training on the use of computers and Internet, applications and communications. The project has equipped training centres in **Ethiopia, Gambia, Rwanda, Uganda**, and **Zambia**, and trained several instructors in each centre. Courses began in 2005 with a yearly total target of between 500 and 700 students.

4.2 National policies

25. A number of countries have incorporated ICT literacy objectives into their national policies (e.g. **Argentina**, **Qatar** and the **Philippines**). In **Azerbaijan**, a Presidential decree requires schools to be connected and ICT awareness to be promoted amongst students. In **Nigeria**, the Development Information Network has developed an initiative on **e-governance for in-school adolescents**. In **Pakistan**, a virtual IT university has been established with enrolment of some 3'000 students across the country.

26. Other countries are developing high-speed research networks (e.g., **Bulgaria**, **Canada**, **Syria**, **Thailand** and the WSIS African Academia Research Network, launched during the Geneva phase of the Summit by the **UN Economic Commission for Africa**).

4.3 ICT Professionals and experts

27. In **Burkina Faso**, the Informatics unit of the Prime Minister's Office, together with the UNDP, have established a programme of training and support for IT professionals in the context of the 2001-05 framework cooperation programme.

28. Support to entrepreneurs is provided by the Enablis entrepreneurship network, initially established in South Africa, with support from the Governments of **Canada** and **South Africa** and the private sector. In

addition, the ITU's **Youth Education Scheme** **(YES)** provides scholarships for students coming from developing countries and LDCs to pursue their careers and/or to complete their tertiary education in telecommunications or-related fields.

4.4 Distance learning

29. ICTs can be used to extend the range of formal education.

- InWent of **Germany,** in cooperation with other development programmes, supports educational and vocational training institutions and organisations that provide e-Learning courses. It also provides capacity-building for regional e-Learning Centres to serve the regional demand for e-Services.
- New technologies are used to aid the dissemination of information to students (e.g., **France, Spain**).
- **ITU** and the World Bank's **infoDev** are cooperating to develop an online ICT Regulation Toolkit. Conceived as a permanently evolving resource, the toolkit consists of a series of modules on key regulatory issues in the rapidly converging ICT sector.

30. Other distance learning initiatives include the African Virtual University (see Box 6), the Commonwealth of Learning (based in **Canada**), the Global Development Learning Network (based at the **World Bank**), the Tunis virtual university (in Tunisia) and the University of the South Pacific. The latter receives assistance from the **Government of Australia (AusAID)** to deliver courses in governance, teacher training and distance education, and uses ICTs to provide distance education from its main campus in Fiji.

4.5 International and regional cooperation

31. Partnerships between stakeholders are helping to make ICT training available to the public. For instance:

- The **Asian Institute of Technology**'s Internet Education and Research Laboratory aims to become a regional centre for Internet Human Resources Development for the Asia-Pacific region and in particular, the Greater Mekong Sub-region.
- In 2000, **Cisco Systems Inc**., the **United Nations Development Programme** (UNDP), the **International Telecommunication Union** (ITU), the **US Agency for International Development** (USAID) and **United Nations Volunteers** (UNV) formed a strategic partnership to help train students through the Least Developed Countries Initiative to prepare them for jobs in the Internet economy. The Initiative has expanded to 39 of the world's 50 LDCs, plus ten non-LDC participating countries in Africa. In 2003, the partners moved into Phase II, to build a "pipeline" down to the secondary school level, out to secondary cities and beyond, providing access to more people and contributing to national development and to the success of individuals. One hundred new academies are being established in refugee camps, girls' secondary schools and universities in cities throughout Africa.
- A **WSIS Thematic Meeting** entitled the "Economic and Social Implications of ICT", jointly organized by the **ILO, ITC, OECD** and **UNCTAD**, was held from 17 to 19 January 2005 in Antigua (Guatemala). A **UNESCO** Thematic Conference on ICTs in Formal Education dedicated to Distance Learning will be held in Baku, Azerbaijan, in August 2005.

Box 6. The African Virtual University (AVU)

The **African Virtual University** was established in 1997 with original funding from the **World Bank**. It is intended to provide access to high-quality tertiary education across Africa, fully utilising ICTs (e.g., satellite television, Internet, videoconferencing etc). Following a proof-of-concept phase in 1997-1999, some 33 AVU learning centres were established across the continent in 2000-2001. Since 2002, AVU has been operational in 18 countries, with over 3'000 students enrolled. In addition to the World Bank, other partners include the **Canadian International Development Agency** (CIDA), the **UK Department for International Development**, private sector organisations (including **Microsoft**, **H-P** and **Netsat**) and overseas partners universities, such as **MIT** (USA), **Carleton University** (Canada) and the **Royal Melbourne Institute of Technology** (Australia).

- In addition, a number of sub-regional WSIS Thematic Meetings have been held including in: Bishkek, **Kyrgyzstan**, 16-18 November 2004; in Bali, Indonesia, 1-3 February 2005; and the Global ICT Conference on the "Digital Divide and Knowledge Economy: Problems and Solutions" in Baku, **Azerbaijan** from 25-28 November 2004.
- The ITU's **Centre of Excellence Project** has organised over a hundred training opportunities per year, and has reinforced the competencies of over 12'000 managers and executive staff from all Telecom entities, in developing countries all over the world. **ITU** has also been working with **France** to develop the **SIMOBIZ** project, aiming at the implementation of a business-oriented simulation tool in four Centres of Excellence of the Africa, Americas and Arab regions.

5 BUILDING CONFIDENCE AND SECURITY IN THE USE OF ICTS (C5)

32. The WSIS Declaration of Principles recognises that "strengthening the trust framework, including information security and network security, authentication, privacy and consumer protection, is a prerequisite for the development of the Information Society and for building confidence among users of ICTs." This section provides examples of national approaches and of international and regional co-operation that are relevant to this action line.

5.1 National approaches

33. The aim of the **Australian** government's Gatekeeper® Strategy is to give the Australian people confidence in their privacy, whilst taking advantage of ICT developments since 1998. This strategy is based on Public Key Infrastructures (PKI) in the Australian Government. PKI is a technology and trust framework that uses digital signature certificates to ensure the true identity of certificate holders and the integrity of the online messages they exchange. Gatekeeper® is designed to facilitate government online service delivery and is administered by the Australian Government Information Management Office (AGIMO).

34. **Hungary** has launched the eSignature/ePreserve programme aimed at establishing the basis for the large-scale introduction of electronic signatures. Other goals are to introduce electronic transactions in public administration and to initiate a programme aimed at enhancing the security of government-owned data. As part of the programme, the "Protected Certification Authority" has been set up to support the use of electronic signatures in public administrative bodies holding sensitive information. In addition, the "Data Preserve Centre" preserves data and implements a pilot application to familiarize users and develop the necessary experience.

35. The National Police Agency (NPA) in **Japan** has strengthened countermeasures against cyber crime, which has increased in line with the number of Internet users. In 2004, the "Cyber crime Division" was set up to promote the investigation and prevention of cyber crime. This division has coordinated investigations by local police forces and strengthened cooperation with industry and foreign countries. As cyber crime is becoming more complex, the NPA has also established a "High-Tech Crime Technology Section" in each Prefectural Info-Communications Department to ensure sophisticated technical support throughout the country in the investigation of cyber crime.

36. In cooperation with public agencies, professional associations representing the private sector and the EU, **Lebanon** is conducting the ECOMLEB project. With the aim of developing e-commerce, the project has two priorities: to develop the comprehensive legal framework necessary to conduct e-commerce and e-transactions (digital signature and proof, data privacy, contracts on-line, consumer protection, e-payments, related international issues, etc.); and to encourage the development and use of e-commerce amongst both SMEs and the consumers. The project has also prepared some legal documents, including an analysis of the current legislation related to e-commerce in the Middle East.

37. As a result of a consultation process involving all telecommunications operators, the Agency for Telecommunication of **Serbia and Montenegro** (AGENTEL) has published a Rulebook on Consumer Protection (Official Gazette RCG 63/03) and informed consumers about their rights. As misuse of ICTs has recently grown in the area of cyber crime (e.g., dialler hijacking), the Agency has issued decisions on consumer protection and obligations for telecommunications operators. These decisions contain regulations, including the daily submission of a list to the Agency of all international outgoing calls with more than 4'000

pulses, a requirement to informing consumers and the elimination of amounts that are the product of dialler hijacking from consumers' bills.

38. Aware of the dependence of the country's critical infrastructure on information and communication systems, **Switzerland** has been setting-up a comprehensive "Operational Concept for Information Assurance (or Critical Information Infrastructure Protection)" since 1998. The operational concept comprises four pillars: (1) suitable preventive measures that should limit the number of incidents; (2) dangers and threats are to be identified as early as possible through a Reporting and Analysis Centre for Information Assurance (MELANI); (3) special Task Force on Information Assurance (SONIA) is responsible for ensuring that the effects of breakdowns are minimised; (4) the technical reasons for breakdowns should be identified and corrected.

39. The Government of **Thailand** (National Electronics and Computer Technology Centre, NECTEC) has established the Thai Computer Emergency Response Team (ThaiCERT) as an electronic discussion forum on cyber security. Its members include governmental agencies and private sector companies (which tend to be more conscious of cyber security). NECTEC laid down a five-year plan for developing ThaiCERT into a pool of experts on cyber security and started online services, with up-to-date bulletins on outbreaks of viruses, new security threats, cyber security laboratory and training courses.

40. Through the Anti-Spam working group, a partnership between government and representatives of all stakeholders, the **United Kingdom** aims to spread best practices and forge international bilateral and multilateral alliances against spam. The UK co-founded the OECD Spam Task Force, which has links with APEC, the European Commission and ITU. This Task Force is a central actor in the fight against spam, aiming to bring together policy-makers, regulators and industries from OECD countries and also to reach out to countries outside the OECD. The Task Force will produce an Anti-Spam toolkit to present best practice in legislation, raise awareness, forge partnerships with industry, ensure self-regulation, provide technical solutions and facilitate international enforcement cooperation.

41. The **Korean Agency for Digital Opportunity** (KADO) initiated work to prevent cyber crime in 2003, and deployed 'cyber crime correction activities' in cooperation with 22 probation offices in 2004. It developed a schooling programme targeted at potential cyber criminals, and organized a 'Cyber Crime Prevention Group' focusing on middle and high schools around Seoul. KADO is going to extend the cyber crime schooling programme to the national probation office level, and expand the operation of prevention groups as well.

42. Several stakeholders have introduced (or will introduce) a regulatory framework with regard to spam and data protection. For instance:

- **Australia** has passed the "Spam Act 2003 (and consequential Amendments)".
- **Japan** enacted "The Law on Regulation of Transmission of Specified Electronic Mail" in 2002, and revised the law to include the introduction of direct penalties on malicious spammers who disguise their identities, etc. in 2005. This amendment is expected to be enforced in autumn 2005.
- The Government of **France** has also launched a national anti-spam strategy.
- The Government of **New Zealand** is preparing anti-spam legislation. The law will be based on civil penalties and will allow ISPs and telecommunications carriers to respond to customer complaints in the first instance, with a government enforcement agency operating as the overseer and arbitrator for issues that cannot be resolved otherwise.
- To protect customers, the **Philippines** launched a public information drive entitled "NTC Cares".
- **Peru** developed its "*Registrador de Llamadas*" for the protection of users.

43. Regarding cyber crime:

- Cyber security Workshops have been conducted in collaboration with the Government of the **United States**.
- The **Council of Europe** finalized the Convention on cyber crime and has promoted it around the world.

44. To facilitate the introduction of ICT applications such as e-government and e-commerce:

- **Azerbaijan** is preparing to introduce an e-signature law.
- **Bulgaria** has launched its government Portal for e-services.
- **Ecuador** has introduced electronic invoices to provide an adequate level of safety to e-commerce.
- In **Nepal,** the Electronic Transactions Acts and Electronic Transactions Regulations were enacted in 2004.
- **New Zealand** introduced the "Electronic Transactions Act 2002".
- **Serbia and Montenegro** has introduced a "Digital Signature Act".
- **Spain** is elaborating its model of document security for tool-kit and electronic signatures through use of digital certificates.
- **United Arab Emirates** established Tejari – the Middle East's premiere B2B e-Marketplace – with the aim of facilitating B2B e-commerce in the Middle East region.

45. With regard to incident response systems,

- **Qatar** has launched the Qatar Computer Emergency Response Team (Q-CERT), aiming to create awareness of cyber security, assist the management of risks, ensure the integrity of data and introduce cyber crime laws.
- The Government of **Spain** has been running an Early Warning Anti-Virus Centre, providing all users with free information about viruses.
- The **US Government** is assisting the Government of **Algeria** to develop its own National Computer Emergency Response Team.

5.2 International and regional cooperation

46. Examples of international and regional cooperation relevant to action line C5 (security) include the following:

- The newly-established **European Network and Information Security Agency** (ENISA) aims to develop a culture of network and information security.
- Under the sponsorship of the Spanish Government, the **Latin America Network of Protection of Information** was created as a permanent forum to promote experience sharing and establish channels for dialogue in this field.
- **OECD** also launched its Culture of Security Website and published "Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices Across Borders".
- As part of the **ITU**'s Istanbul Action Plan, governments, the private sector and civil society representing 35 countries have signed the World e-Trust MoU. ITU has also created a database of anti-spam legislation worldwide. ITU also held a WSIS Thematic Meeting on Countering spam in July 2004 and on Cybersecurity, in Geneva, June 28 to 1 July 2005, and numerous workshops. ITU has also launched standardization work on Cybersecurity and fighting spam by technical means.
- The **Council of Europe** is promoting the implementation of the "Convention for the Protection of Individuals with Regard to the Automatic Processing of Personal Data". A specific directive on the protection of privacy in electronic communications was adopted in 2003 as part of the new European Commission regulatory framework.
- The **European Commission** has created a Task Force on Spam to find solutions in the fight against Spam with companies.
- In **Switzerland,** a Public Private Partnership has been established in the field of Information Assurance.

6 ENABLING ENVIRONMENT (C6)

47. Contributions to the database show that governments and other authorities are aiming at creating an enabling environment for the creation and sustainability of an all-inclusive development-oriented Information Society. Many policy initiatives are based on principles of competition, transparency and private sector-public sector partnership. Action line C6 encompasses economic, social and technological issues for policy support and legislative changes to maximise the benefits of the Information Society. This section provides some examples.

6.1 Policy, regulatory and legal reform

48. In the **Czech Republic,** the Association of Public Telecommunications Operators has developed a project on Local Loop Unbundling, defining principles and rules for operators. The project goal was to define products and services, as well as design network solutions and technical principles related to network interconnection on the operator side. The project also proposes principles for inter-operator communications, rules for processes, terms, content, format and mechanism of agreements, etc. Local loop unbundling is an important step towards liberalization, especially for broadband Internet access.

49. In **Lebanon**, the Ministry of Telecommunications has issued a Telecom Policy Paper, which aims to transform the telecom sector from a state-owned monopoly into a competitive market open to the private sector. It is hoped that this reform will make Lebanon's telecom infrastructure the most competitive in the region. The policy is based on four basic pillars of market liberalization, establishing an effective regulatory authority, optimising the value of assets owned by the state and introducing a fast-track opening to private participation.

50. In **New Zealand**, the Connecting Communities initiative is an ambitious strategy that enables individuals and communities to participate fully in the economic, social, educational, cultural and democratic opportunities available in an Information Society. The strategy was developed on the premise that improving community access to ICTs is a responsibility shared by central and local government, the philanthropic, voluntary and private sectors, and the communities themselves.

51. In the **United States of America,** the Federal Communications Commission (FCC) is undertaking outreach and training programmes on advanced spectrum management techniques and approaches. The FCC's International Bureau has hosted over 15 videoconferences with regulators from across the globe to discuss flexible and cutting-edge spectrum management policies to accommodate convergence and new technologies, as well as the recommendations of the FCC's Spectrum Policy Task Force.

52. The **International Telecommunication Union** (ITU) holds the annual ITU Global Symposium for Regulators. The 2005 GSR will be held in Hammamet, Tunisia, immediately prior to the Tunis Phase of WSIS, to address "Regulating in the Broadband World: Key Tools to Build the Information Society". Other ITU regulatory activities include:

- The 6th Forum on Telecommunications Regulation in Africa (FTRA-2005), entitled "Broadband: Challenges for African Regulators", held in Maputo, Mozambique 27 - 28 April 2005;
- The Global Regulators Exchange (G-REX);
- The ITU website on policy and regulatory resources (TREG);
- The annual ITU publication "Trends in Telecommunication Reform"(the latest publication addresses "2004/05 Trends in Telecommunication Reform: Licensing in the Era of Convergence";
- The ITU-European Community Training Project on ICT Regulatory Reform for West Africa;
- The "Blue Book" jointly published by ITU and CITEL, which is a report on telecommunications policies in the Americas.
- ITU also hold annual seminars on spectrum management and radiocommunication system

6.2 Internet-related law and governance

53. Internet Governance is one of the three areas of focus of the Tunis phase of the Summit.

- In accordance with action line C6 b) of the Plan of Action, the **Working Group on Internet Governance (WGIG)** was established in 2004 to pursue the dialogue on Internet Governance and to prepare the ground for a decision during the Tunis phase of WSIS. The group has conducted its work through a series of meetings and online consultation forums. The final WGIG report was presented on 18 July 2005.
- The **International Telecommunication Union** (ITU) held a WSIS Thematic Meeting on Internet Governance in February 2004 and has developed a resources website devoted to this issue. In addition, the **United Nations Information and Communication Technologies Task Force** (UNICT TF) has published a report (Internet Governance – A grand collaboration) on this topic ITU has also published "A Handbook on Internet Protocol (IP) – Based Networks and Related Topics and Issues".
- The **Communications Commission of Kenya** has mandated the interconnection of the three East African Internet Exchange Points (IXPs) and the Kenya Network Information Centre, as a way of keeping regional traffic within the region. Kenya facilitated the formation of a taskforce comprising representatives drawn from the three East African Regulators, Internet Service Provider (ISP) associations, and public telecommunication operators to develop a model for the interconnection of the Internet exchange points. The Kenya Network Information Centre (KENIC) was established to promote, manage and operate the delegated ".ke" country code top level domain in the interests of the Kenyan Internet community and the global Internet community.
- Under the auspices of the **United Nations Economic and Social Commission for Western Asia (ESCWA)**, an 'Arabic Domain Name Task Force' was formed. One of its main achievements was the definition of guidelines for an Arabic Domain Names System in the form of a 'Request for Comments (RFC)' document, in which many technical and linguistic issues were solved.

6.3 Entrepreneurship and Small and Medium-Sized Enterprises (SMEs)

54. The WSIS Plan of Action calls for assistance for SMEs and for policies to foster entrepreneurship. Examples of these types of activities include the following:

- In **Pakistan,** the Ministry of Information Technology has established a web-based Industrial Information Network (IIN) for SMEs and entrepreneurs. The project aims to be the largest and most comprehensive (one-stop-shop) source of industrial information, and the biggest e-commerce portal in Pakistan. The portal will offer information services on government rules, regulations and policies, various sectors, forums for discussion, news, events, technology, financing (loans, leasing, sourcing venture capital), e-Business services, setting up websites for SMEs and other topics.
- The **International Trade Centre** (UNCTAD/WTO) is working to improve trade opportunities of African women entrepreneurs through the use of ICTs. The project aims to build a national team of trade advisers, who can provide direct assistance to women entrepreneurs. The team specializes in improving entrepreneurs' management competence and in applying ICTs to business. Team members are trained to identify areas of weakness in management and e-readiness, as well as to design effective training and counselling programmes. They also carry out enterprise audits and design sector-specific training courses for women entrepreneurs.
- The Seminar on the Regulatory Framework for Internet-based Entrepreneurship was held in Geneva, on 9 February 2005 with concrete recommendations. Core outputs include recommendations on methods of the collection, storage and dissemination of reliable commercial information on companies in e-business registries.
- **UNIDO** is promoting e-Trade portals for secure trading by small and medium-sized enterprises.

6.4 Consumer-related policy and dispute settlement mechanisms

55. The WSIS Plan of Action calls upon governments to update their domestic consumer protection laws (see also section 5.1 on anti-spam legislation) and encourages work on effective dispute resolution. Examples of these activities include:

- The National Telecom Regulatory Authority of **Egypt**, in line with the telecommunication law issued in February 2003, has formed a consumer protection committee to gather information on the regulation of telecom services in consumer societies and to get feedback from consumers regarding different services. The Decree of the Committee issued in September 2004 requires the establishment of a dispute resolution committee within NTRA to solve problems between telecom operators, before any referral to court in accordance with the terms of the license.
- In **Japan**, the Law for Promotion of Use of Alternative Dispute Resolution (ADR) was established in November 2004. It seeks to reinforce and revitalise ADR in order to ensure citizens' rights.
- **ITU,** together with the **World Bank** carried out a joint study on the settlement of national disputes with an emphasis on consensus building and alternative dispute resolution and are currently working together on a project to make available an online searchable multi-lingual Clearinghouse of global regulatory decisions.

7 ICT APPLICATIONS: BENEFITS IN ALL ASPECTS OF LIFE (C7)

56. The WSIS Plan of Action identifies eight sectors as examples of those where the application of ICTs can bring wider social and economic benefits. Examples of activities submitted in these areas include:

7.1 E-government

57. A number of different initiatives have been launched in the field of e-government:

- In **Bangladesh**, the Finance Division, under the Ministry of Finance, has developed customized software for budget planning, sensitivity analysis, impact analysis, financial projections and the preparation of reports. This has enabled the budget to be prepared much more quickly and efficiently than under the previous manual system.
- In January 2005, the General Tax Directorate of **Bulgaria** opened a portal, through which citizens and companies can use many e-government services, such as finding, downloading and completing all necessary documents, forms and templates; paying personal taxes over the Internet using bank debit cards; submitting monthly VAT declarations and reports; and paying VAT over the Internet.
- Under the supervision of the Ministry of Post and Telecommunications, a dedicated network has been set up for permanent real-time audiovisual communications between the main governmental institutions of the **Republic of Congo**, i.e. the President, government and parliament. The extension of the network and further applications are planned.
- The Ministry of Labour and Social Affairs of the **Czech Republic** has improved the system of family benefits by implementing the Affairs Information System of Family Benefits, which is a wide-ranging system, with an online communication infrastructure consisting of some 400 contact points. Smart cards were issued to all family benefit officers to provide them with a safe means to log in, authenticate and transfer data (e-signature). On the MoLSA web page, clients can find e-forms for claiming family benefits. The electronic mailroom is fully operational. This system is interconnected with other public administration information systems to enable clients to check the validity of data in their requests automatically. Many contact points are equipped with modern information kiosks.
- In 2003, the **Estonian** Government launched the "Estonian electronic ID Cards" project. These can be used for personal authentication purposes (e.g. for entering e-service environments) and for giving digital signatures. A unified e-mail address is incorporated in the card to enable secure mechanisms for the automation of messages. By October 2004, more than 630'000 ID cards had been issued. (The population of Estonia is 1.35 million).

- In 2004, the Ministry of Finance of **Guyana** embarked on a programme to improve its financial accountability by converting its financial systems into a consolidated, fully automated, state-of-the-art Accounting Management System. In January 2004, the Ministry of Finance, funded by the GEM-P/CIDA implemented an Integrated Financial Management and Accounting System (IFMAS), a proven, commercial, off-the-shelf solution. The IFMAS system is being implemented on a distributed network platform that includes a WAN and many LANs. Computers numbering in excess of 100 and supporting equipment were installed in all the Accounting Units of the Ministries and Agencies and an online, real-time process is taking place using fully-automated government cheques.
- The objective of the Central Information Technology Office (CITO) Government of **Jamaica** Records Management Systems project (software standards and recommended products) is to establish policy guidelines for government institutions to manage electronic records using an Electronic Records Management System. Some government entities have already obtained electronic record management packages and many entities are actively investigating systems. The project is based on the premise that, in the information age, government is underpinned by the effective management of electronic records. As the Government continues to implement its e-government initiatives, more and more records are being produced in electronic format and steps must be taken to ensure their authenticity, availability and reliability.
- The government of **Japan** (Ministry of Internal Affairs and Communications) has been promoting its "Programme for building e-government", which includes concrete initiatives towards providing user-oriented public services and realizing simple and efficient government.
- **Nepal**'s National Information Technology Center has developed government portals that enable citizens to find necessary information and utility forms. As a start, some 33 forms have been posted on websites for easy access to the citizens within and abroad to obtain government services. These forms are to be filled out by Nepalese citizens living abroad for purposes such as citizenship certificates, driving licenses, etc.
- The Propuesta de Administración Electrónica (Gobierno Electrónico) is a project of the Government of **Nicaragua** to provide greater access to government information online.
- In **Spain**, the Agencia Estatal de la Administración Tributaria offers citizens a wide range of assistance with administrative functions.
- In 1999 **Singapore's** Ministry of Finance and Infocomm Development Authority (IDA) launched the eCitizen portal. The portal is positioned as the first-stop for government services on the web and organised with the needs of the citizens and customers in mind. Today, there are around 1'600 public services online and this makes up nearly 97 per cent of public services. Some of the public services online include the filing of income tax and the retrieval of airline and flight information
- The **Development Gateway Foundation** created the Aid Management Platform that is a web-based e-government tool that increases transparency in aid processes between developing country governments and their donors, and reduces the transaction costs of aid tracking, reporting and coordination. The first modules have been deployed in May 2005 by the Government of **Ethiopia**, which also helped define what the system should address. Additional modules are in the pipeline. This has been an international, cooperative effort and the system can now be made available and tailored to the needs of other governments.
- The **European Community** in collaboration with **ITU** is implementing a Global E-Government Project: "Enhancing Government Services through the use of Secure and Trusted Internet Infrastructures and Applications". This project is aimed at assisting and increasing government efficiency in developing countries by providing Internet-based services and applications to citizens and government officials in **Cameroon, Kyrgyz Republic** and in **Rwanda**.

7.2 E-business

58. By using appropriate trade promotion programmes, **Switzerland** is helping small and medium-sized companies in emerging countries and economies in transition to improve their market access to Switzerland

and the European Union, thereby helping Swiss importers to find new products and sourcing markets. In the ICT sector, the Swiss Import Promotion Programme (SIPPO) organizes selling missions, trade fair stands and the online B2B Platform (Trado) to offer IT companies in developing countries and Swiss importers the opportunity to network and interact in real time to develop business activities and create mutual opportunities.

59. Amongst other e-business initiatives:

- The Regional e-Business forums of **ITC** (UNCTAD/WTO) concentrate on exploiting emerging e-business opportunities and applying new technologies to promote trade. E-Business Forums establish dialogue between export managers and strategy-makers with responsibilities of promoting international e-business and combining learning, expertise sharing, interactive dialogue, networking and business matching.
- In Tunisia, **WebManagerCentre** is a portal for economic information, finance and management. It is designed to address the needs of industry, SMEs and the wide public in these fields. Bringing the benefits of ICTs to professionals as well as to all citizens, the portal aims to enhance the effective communication among all stakeholders and provide tools for efficient business solutions.
- **UNCTAD** helps countries to formulate their own e-business policies through technical assistance programmes, the promotion of international debate and by carrying out analytical work. UNCTAD's e-business programme addresses issues such as cybercrime, free and open source software, e-tourism, business process outsourcing, e-finance and e-services, and computerised customs management.

7.3 E-learning

60. A number of different initiatives have been launched in the field of e-learning:

- The **Bolivian** Office of Technical Cooperation (OTC), together with the Spanish Agency for International Co-operation (AECI), are working together to integrate ICTs as tools in the areas of education, in line with the Strategic Plan for 2004-07.
- The Ministry of Communications and Information in **Indonesia** is running the OSOL (One School One Laboratory) programme that is part of the country's effort to increase computer penetration in schools, particularly for K-12 students. At the moment, there is a huge digital divide throughout Indonesia, particularly between the urban and rural sectors. Students' abilities to use ICTs are seen as key to the success of Indonesia's Information Society. This initiative is being carried out in partnership with various bodies.
- The **Korean** Agency for Digital Opportunity (KADO) has been providing online education free of charge to improve the public's information capabilities and bridge the digital divide between social groups. It has offered 46 online courses to more than 137'000 people since 2001 on subjects ranging from basic ICT skills to more advanced computer language courses. KADO is planning to establish an intelligent information repository and cyber lifetime learning system to provide a full range of services in 2005.
- @Campus is an online learning programme for public servants, helping to consolidate civil service reform in **Mexico**. The project provides civil servants with an Internet-based education portal offering courses and information on certification. With financial support from ICA and the expertise of the **Canadian** School of Public Service, Mexico has instituted a pilot phase through which 800 public servants have received training. The goal is for up to 47'700 public employees to have access to the e-learning platform and for the project to be a reference project for future roll-out in the region. ICA's Mexican partner on the @Campus Mexico programme is the Secretaría de la Función Pública (SFP).
- Te Kete Ipurangi (the Online Learning Centre) is an initiative of **New Zealand's** Ministry of Education and is a bilingual education portal. The Te Kete Ipurangi project aims to provide New Zealand schools with a cost-effective electronic platform to communicate curriculum and administrative materials, enhance teaching and learning, raise student achievement and advance professional development for school management and teaching staff.

- DSL is becoming more widely used in delivering educational services in **Turkey**. The Ministry of Education and Turk Telekom have agreed to provide DSL connections to primary and secondary schools around the country.
- Through its e-Education project, the Ministry of Education and Sports (MES) of **Uganda** intends to encourage the provision of education to all schools and adults (continuous education) throughout Uganda. It also aims to promote the use of the Internet to provide education to all.
- A three-phase e-learning pilot project, implemented by the **US**-based Middle East Partnership Initiative, will create a collaborative learning network for 24 high schools throughout **Yemen**. Phase I will focus on basic connectivity issues, refurbish and equip Internet classrooms and give computer and Internet training to teachers and students. Phase II trains teachers in the pilot schools, in interactive ways linking them to e-learning resources in the region and in the United States; provides Arabic teacher-training materials; develops lesson plans that incorporate the Internet and multimedia materials; and adapts lesson plans to gender-specific issues to ensure the involvement of girls. Phase III will introduce telecollaborative projects for Yemeni students to work on amongst themselves and with American students.
- ICTs are also being used to ensure that the correct data is collected during the registration of students in schools (e.g., **Cameroon**, **Ethiopia**).
- Using the **Development Gateway Foundation's** interactive web portal, the Hewlett Foundation is funding a new Open Educational Resources (OER) website to equalize access to high-quality educational materials at low or zero cost to learners and practitioners throughout the developing world. The main focus will be on facilitating access to OERs and the creation of OERs, but the project will also enable the formation of online communities for teaching and learning and provide opportunities for professional networking and collaboration.
- The **ITU e-Learning Centre** has been established as a global platform aimed at strengthening human capacities in the areas of telecommunications and human resource development. Since 2003, more than 100 online courses have been offered annually in the areas of Telecom Policy, Technology Awareness, Regulatory Issues, Strategic Management, e-Services, Spectrum Management and Network Engineering. Each year, more than 1'000 people are trained through the ITU e-Learning Centre.

7.4 E-health

61. A number of different initiatives have been launched in the field of e-health:

- The **Albanian** Patient Care Management System (APCMS) uses a Health Information System (HIS) to record data for every patient. The system is being used to improve decision-making at the facility and the Ministry of Health level.
- The **Canadian** International Development Agency (CIDA) is running the Nursing Education Project, which aims to provide members of the nursing profession with the tools necessary to ensure continued employability, and professional competitiveness in a global environment. Knowledge and expertise in ICTs is considered an important tool.
- The Ministry of Health of **Guyana** has developed PMIS (Patient Management Information System) software to be used by the various health centres and hospitals across the country to capture epidemiological data, as well as to administer patients' medical records. Health centres in Guyana's ten administrative regions would enter data using this software, which would then be sent to the processing department located within the Ministry of Health. This information would enable the analyses needed by departments to process critical reports, as well as to promote better health activities in areas that are in need of such services.
- **Lithuania's** EHSI (Electronic Health Services Infostructure) project aims to start implementing the unified, nationwide Electronic Health and Healthcare Record System based on international standards, which will facilitate the efficient input, usage, communication and administration of information managed by Health Care Institutions (HCI) about patients' treatment and analyse results generated in

various HCIs. Over the long-term, the project will ensure that healthcare data are collected throughout each citizen's life that are accessible to all parties involved in treating the patient.

- The Ministry of Information Technology of **Pakistan** intends to establish a Health Information Resource Centre, providing an online repository of reliable, timely and accessible health information generated within the country and abroad to all health professionals, researchers, policy-makers and planners through a single portal. This health information resource will include a directory of health research, health studies and databases of hospitals and doctors in Pakistan, the full text of 29 Pakistani journals, surveys and reports, etc. It also aims to promote IT knowledge amongst health professionals through training on specially designed computer software for data compilation and its electronic conversion.
- A health portal was created in 2004 by the **Romanian** Ministry of Communications and Information. It provides information on health sector services and is available to patients and medical staff. It secures the online presence of institutions in the medical field and facilitates communication between medical staff both within the country and abroad. By providing basic information on diseases, treatment and medicines etc, the project increases the importance of preventive medicine and will contribute to reducing administrative and social costs of diagnosis and treatment. The project also enables patients to make online appointments.
- The **Swiss** Department of Social Action and Health (DASS) is implementing "E-Toile," a protected electronic network intended to connect the decentralized medical databases on patients' health. An authorized request gives access to desired information, whilst leaving a trace mark of the data accessed. The system also offers value-added services, such as information on regulation, prescriptions and treatment alarms.
- In **Thailand**, the Department of ICTC is establishing a surveillance system for disease prevention and control at Suwannaphum International Airport. The project aims to strengthen the surveillance system for the Port Health Office at the airport. The System will provide a computer network connection among the port health offices throughout the country, representing a unique example of ICT infrastructure and connectivity being used for public health and safety.
- In **Tunisia**, a regional health portal, Maghrebmed, was created through a public-private partnership. The multi-level website targets a wide public, including health professionals, patients and people interested in health issues in general. The activity provides access to a wealth of digital resources and is intended to stimulate the exchange and the dissemination of information and knowledge through the establishment of virtual communities.
- In **Turkey**, a USD 50 million project has been established with the assistance of the **World Bank** with the strategic objective to improve healthcare services by developing a Highly Secure National Health Information Platform that enables healthcare providers, health professionals' and citizen's easy and safe access to health related information and services by using latest ICTs. The ITU provides technical assistance for assessing needs, recommending strategies and coordinating the implementation.
- The **African Medical & Research Foundation** (AMREF) has embarked on the use of ICTs in telemedicine to improve quality and access, and lower the costs of its clinical outreach programme, which currently covers 75 government and mission hospitals. The regional telemedicine pilot project has initially targeted four hospitals in Kenya and Tanzania, with a view to expanding to cover all of them.
- Child Helpline International currently has 79 child helplines in 69 countries and is working in a further 14 countries to establish new services. The networks are available to marginalized children through text messaging, email, confidential and open chat rooms, with the aim of ensuring their voices are heard. In the near future, it is planned to extend child helplines to the district level, enabling more children in need of care and protection to gain access to Child Helpline's services.
- In collaboration with **Cisco Systems**, the **WHO's** "Health Academy" is a novel approach to improving health through information technology. It will provide the general public with the necessary health information and knowledge to help prevent diseases and to follow a healthier lifestyle. The Health Academy's mission is to demystify medical and public health practices and to make the knowledge of health specialists available to all citizens of the world through Internet-based technology. It will promote

good health by explaining essential public health functions in a language that users can understand, taking into consideration their individual cultural sensitivities.

- **ITU** is contributing to the development of innovative solutions and options for providing health services to underserved areas and the development of institutional partnerships. ITU's e-health activities include the implementation of telemedicine projects in several countries including **Bhutan, Georgia, Malta, Mozambique, Myanmar, Nicaragua, Senegal, Uganda** and **Ukraine**.
- In Norway, Steinar Pedersen's research concludes that a number of telemedicine services are already available to users; in diagnostics (ENT, maternity control, internal medicine, dermatology, pathology, radiology, psychiatry, and ophthalmology) and procedural services such as requests, reports, lab results through e-mail and the web. In its capacity as WHO Collaborating centre for telemedicine, the Steinar Pedersen is trying to share its knowledge with other countries throughout the world.
- **The Telemedicine Alliance** is a part of the 6th framework programme of the European Commission. The consortium comprises ITU, WHO and the European Space Agency, with the objective of building a bridge towards a coordinated implementation of e-Health in Europe, by focusing on e-Health interoperability and the mobility of citizens.

7.5 E-employment

62. A number of different initiatives have been launched in the field of e-employment:

- The **Bangladesh** Bureau of Manpower, Employment and Training (BMET), and the Ministry of Expatriate Welfare have automated much of the registration process for Bangladeshis seeking jobs overseas. It has developed a rich, interactive website, which offers various services for job-seekers and employers. BMET has established a Data Bank of Prospective Overseas Job Seekers, which is web-based and offers the facility for overseas employers to search for prospective overseas job seekers from Bangladesh over the Internet.
- The **Pakistan** Ministry of Information Technology, IT &T Division has implemented a project aimed at providing basic infrastructure at the Federal Public Service Commission (FPSC): this involves automating the seven major FPSC systems and providing an online recruitment system. These facilities will lay the foundations for government e-services in employment.
- The **Thai** Department of Employment has developed an Overseas Employment Service System, the objectives of which are: to administer Thai workers intending to work overseas; to centralize overseas employment information; to protect the rights and benefits of overseas Thai workers; to promote and develop overseas labour opportunities for Thai workers; and to provide overseas employers with suitably experienced Thai workers.
- **ITU**, together with **ASAFE** (*Association pour le Soutien et l'Appui à la Femme Entrepreneur)*) and other partners, has started an e-employment (e-competence) project for women and youth in Cameroon (with possible extension to **Chad, Democratic Republic of Congo, Guinea, Rwanda** and **Tunisia**). The objective is to provide women with the knowledge and skills that are needed to support the transition to e-competence and capabilities in the region.

7.6 E-environment

63. A number of different initiatives have been launched in the field of e-environment:

- The **Swiss** National Animal Tracing Database (NATI) records animal births, transfers (e.g. animal sales) and slaughter to ensure the seamless traceability of livestock. This capability is extremely important in the event of an epidemic and an urgent need to identify potentially infected animals.
- The **US** Agency for International Development runs the Guinea Expanded Natural Resources Management Project (GENRMP) and is using GIS software to develop a forest management plan involving both the national government and the local population.

- Global Monitoring of Environment and Society (GMES) is a joint initiative of the **European Commission** and the **European Space Agency (ESA)**, designed to improve European capacity for the provision and use of operational information for Global Monitoring of Environment and Security by 2008. This capacity is composed of three modules: the production and dissemination of information; mechanisms needed to ensure permanent dialogue between all stakeholders; and the legal, financial, organisational and institutional framework to ensure the effective functioning of the system and its development.
- Within the framework of the Global e-Sustainability Initiative (**GeSI**), **ITU** together with industry partners is working to address the impact of telecommunications and ICTs on climate change.
- The **World Meteorological Organisation** (WMO) is promoting the provision and rapid exchange of information on weather, water and climate between scientific and research centres. In E-environment, WMO is promoting the provision of timely weather, water and climate information, including warnings for mitigating natural disasters, dangerous weather-related phenomena and environmental emergencies.

7.7 E-agriculture

64. Under the **Bangladesh** Ministry of Agriculture, the Department of Agricultural Marketing (DAM) has developed a website that gives information about the daily prices of key agricultural products in various markets. This helps farmers and local business people to make better-informed decisions concerning to which markets they should sell. A similar initiative was undertaken by **Trinidad and Tobago** in establishing a comprehensive Management Information System to ensure that policy-makers and entrepreneurs have useful information for making informed policy and business decisions

65. The **US** Agency for International Development runs the Southern Africa Sustainable Tree Crops Programme (STCP) that uses a portal, consisting of a website and Intranet, to coordinate field activities among partners in coffee, cocoa and other tree crops.

66. **FAO** has initiated a number of initiatives in this area:

- A partnership-based e-learning initiative known as the Information Management Resource Kit (IMARK) will train individuals in the effective management of agricultural information. IMARK learning materials are being developed as a series of modules on CD-ROM, supplemented by an Internet-based, online community for contributors and learners to exchange views and share information. Access to IMARK is available in up to five languages and is free of charge.
- The Access to Global Online Research in Agriculture (AGORA) initiative provides public institutions in developing countries with free or low-cost access to over 400 major scientific journals in agriculture and related sciences. AGORA aims to increase the quality and effectiveness of agricultural research, education and training in low-income countries and, in turn, to improve food security. Researchers, policy-makers, educators, students, technical workers and extension specialists will have access to high-quality, relevant and timely agricultural information over the Internet.
- The Farmer Information Network (FarmNet) is a conceptual model for using ICTs for agricultural and rural development. It aims to create a network of rural people supported by intermediary organisations through extension services, using ICTs and conventional media to facilitate the gathering and exchange of knowledge and information. Farmnet projects are currently ongoing in Bolivia and Namibia, with others planned for East Africa and Latin America.

7.8 E-science

67. A number of different initiatives have been launched in the field of e-science:

- The **Spanish** Ministry of Economy and Property has opened the Central Virtual Library enabling people to consult databases containing the entire collection of the Library, including digitized books, documents and historical works. It also allows the physical collection to be searched.
- The **Thai** Automatic Web Translation Services project aims to develop a English-to-Thai and Thai-to-English, computer-based translation service on the Internet. Since 1996, the National Electronics and

Computer Technology Centre (NECTEC) has developed a language translation system with the Centre of International Cooperation of Computerization (CICC). This project serves as a lab model and provides information on studies related to language translation machines.

- **Bioline International** (BI) is an electronic publishing service committed to providing open access to quality scientific research and literature generated in developing countries. The primary goal of BI is to improve the accessibility, visibility and research impact of research published in developing countries. Using peer-reviewed journals from several developing countries, Bioline provides a unique free service by making bioscience information generated in these countries available to the international research community.
- The Technical Committee of the **International Committee on Future Accelerators: Standing Committee on Inter-Regional Connectivity** (ICFA) monitors the world's research and education networks, tracks their requirements and deals particularly with issues relating to the digital divide. Its main goal is to foster global scientific collaboration, thereby enabling scientists around the world to participate in frontier scientific discoveries.
- The **Islamic Educational, Scientific and Cultural Organisation** (ISECO) has created a High Level Presidential Forum on Science (in cooperation with UNESCO).
- **P2Pscience** intends to implement a peer-to-peer (P2P) network for the free exchange of scientific information. It promotes the use of P2P technology to share scientific knowledge, drafts and reprints written by scientific authors who have waived their right to payment.

8 CULTURAL DIVERSITY AND IDENTITY, LINGUISTIC DIVERSITY AND LOCAL CONTENT (C8)

68. The WSIS Plan of Action recognises that cultural and linguistic diversity, while stimulating respect for cultural identity, traditions and religions, is essential to the development of an Information Society based on dialogue among cultures and regional and international cooperation. Some of the initiatives submitted to the stocktaking database are summarised below:

8.1 National approaches

69. **The National Museum, Ministry of Cultural Affairs** has created an online gateway to **Bangladeshi** tradition and culture. It is an informative website highlighting the cultural and historic heritage of Bangladesh and provides easy access to information about the country's history and traditions.

70. Every year, the **Ministry of Culture** of **Bulgaria** awards the **Hristo G. Danov" national prize** for contributions to Bulgarian literary culture in the category "Electronic publishing and new technologies". In this way, the Ministry aims to encourage synergies between information technologies and cultural content, to the benefit of both fields.

71. In **Egypt**, the Centre For Documentation of Cultural and Natural Heritage (CULTNAT) is working on various sub-projects to document and preserve Egypt's cultural and natural heritage and aims to become a truly global IT network in the field of heritage digitization. The Centre's objectives include: documenting the Egyptian Cultural Heritage; increasing public awareness of the cultural and natural heritage using all available media; building the capacity of professionals in the conservation and documentation of cultural and natural heritage; implementing a documentation programme in collaboration with national and international specialized organisations using the latest information technology; and forming contacts between Egypt and countries throughout the world.

72. On the initiative of the **French** Ministry of Foreign Affairs, the Organisation of Eastern Caribbean States (OECS) has created a portal assembling the cultural organisations from six Caribbean countries. The purpose of the portal is to reinforce regional integration, by developing contacts between the 80 principal cultural organisations in the region. Using the Internet, the project contributes to the unity of Caribbean culture, whilst preserving the diversity and freedom of each island. The project involves establishing and maintaining Internet pages and providing equipment (five cybercafés). In this way, cultural organisations can manage their presence on the Web themselves and develop local capacities in the new ICTs. The project is financed by the French Government and implemented by the Secretariat of the OECS.

73. On the initiative of the National Digital Forum, a web page "Matapihi", containing online collections of a number of **New Zealand** cultural organisations has been created: it enables the public to search the digital collections of various New Zealand organisations from a single website. On its launch, the service contained around 50'000 records and this number will increase as new partner organisations contribute. Geography, history, the natural environment, people and events are featured in the form of photographs, drawings, paintings, sculpture and some 3-D virtual museum objects, as well as a small number of sound files and textual items.

8.2 International and regional cooperation

74. The **European Commission, DG Information Society** has a number of programmes in this area including:

- The eContent Programme is part of a wider series of actions launched by the **European Union** to make eEurope a reality. It supports the development of European digital content on global networks. Over an initial four-year period (2001-2005), eContent had a budget of 100 million Euro to improve cross-border access to and use of public sector information, and to enhance content production in a multilingual and multicultural environment. A proposal for an eContentplus programme covering the period 2005-2008 is currently under discussion.
- "Access to cultural heritage" is a strategic objective of the Information Society Technologies (IST) priority area within the 6th **EU** R&D Framework Programme. It aims to develop advanced systems and services that help improve access to Europe's knowledge and educational resources (including cultural and scientific collections) and generate new forms of cultural and learning experiences. Eight projects were selected for funding from "Cultural Heritage" under a call for proposals in 2003, with a funding of 36.3 million Euros in total. Another call for proposals will be published in 2005.

75. The Steering Committee for Culture (CDCULT) of the **Council of Europe** also has a number of relevant programmes:

- Through the drafting of a "Framework Convention on the Value of Cultural Heritage for Society," the Steering Committee for Cultural Heritage (CDPAT) aims to provide countries with a cooperation structure and monitoring system that will allow them to adapt their policies to the context of a knowledge-based network economy. As a regional complement to UNESCO's work on the protection of the "diversity of cultural contents and artistic expressions," the CoE defines principles and criteria governing the sustainable use of the cultural heritage resources, to establish a development scheme of benefit to society as a whole.
- The European Heritage Network is a European information service facilitating the achievement of various WSIS targets, including: connecting central government services and heritage agencies (31 participating countries in 2004); promoting access to public official information and scientific knowledge; creating online working instruments for the heritage community; encouraging European cultural content and respecting linguistic diversity; developing R&D in the cultural field, together with open source, property and free software; and creating a basis for self-learning and life-long learning.

76. **UNESCO** is the pre-eminent international organisation in this area. Its relevant programmes include:

- UNESCO Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace that was adopted by UNESCO's General Conference at its 32nd session (30 September – 17 October 2003). It proposes fostering universal access to digital resources and services, and facilitating the preservation of their cultural and language diversity.
- The UNESCO Charter on the Preservation of the Digital Heritage that was adopted by UNESCO's General Conference in 2003, provides a policy framework to address the challenge that more and more of the world's cultural and educational resources are being produced, distributed and accessed in digital form rather than on paper. Original digital heritage available online includes electronic journals, World Wide Web pages and online databases and is now part of the world's cultural heritage. However, digital information is also subject to technical obsolescence and physical decay.

- Thousands of libraries, schools and universities in Portuguese-speaking Africa (**Angola, Cape Verde, Guinea-Bissau, Mozambique** and **Sao Tome and Principe**) and **East Timor** will have access to some 20'000 titles of Portuguese-language books and periodicals from all over the world in UNESCO's Virtual Library of Portuguese Language**.**
- UNESCO's Digitization of Recordings of Traditional Chinese Music (**China**) is aimed at making field recordings of Chinese music held by the Music Research Institute (MRI) of the Chinese Academy of Arts in Beijing available digitally. The collections included in UNESCO's Memory of the World Register in 1997 contain unique field recordings from the 1950s onwards. The project also includes the purchase and installation of equipment, the digitization and the creation of a website to provide access to the digitized collections.

77. On the initiative of the Ministry of Foreign Affairs of the Government of **France**, an international symposium on "Plurilinguism in the Information Society" was organized. The purpose of the meeting was threefold: to draw attention to the existing linguistic diversity in the Information Society; to investigate the impact of information ICTs on languages; and to consider the meaning of promoting linguistic and cultural diversity on the Internet.

78. The **Microsoft Local Language Program** is a global initiative that fosters the development and proliferation of regional language groups, enabling them to preserve and promote their language and culture, whilst benefiting from continuing IT advancements. Through collaboration with governments to offer citizens the ability to customize leading, value-based Microsoft software applications with local language capabilities, people around the world will be able to work with PCs in their native languages. Individuals will be better able to build their skills, take advantage of opportunities and achieve overall IT progress.

79. **The International Centre for New Media** (ICNM) World Summit Award (WSA) is a global initiative for selecting and promoting the best in eContent and creativity. It aims to bridge the digital divide and narrow the content gap. The WSA emphasizes cultural diversity and identity, the creation of varied information content and the digitization of educational, scientific and cultural heritage. The WSA initiative has been built based on the dedication of leading international organisations and highly-motivated individuals from all around the world. As of today, the initiative involves 136 countries in five continents and the associate partner network numbers over 90 partner organisations.

80. The **Universal Networking Digital Language Foundation's** (UNDL) Universal Network Language (UNL) proposes a multilingual communication infrastructure using ICTs to collect, store and distribute information and knowledge from a single natural language to many. It is a long-term programme, which includes the continuous development and improvement of the UNL linguistic resources and supporting software. It also involves the setting-up of a network of UNL language servers through the Internet, which enables people around the world to communicate with each other in their respective languages.

81. The **Memoriav - Association for the Preservation of the Audiovisual Heritage of Switzerland** carries out diverse projects to preserve, restore and digitize photographs, sound-recordings, films and videos produced or linked to Switzerland. In this way, Memoriav intends to record audiovisual cultural assets and take the necessary steps to save and preserve them. Memoriav will create an information network between institutions active in this field and will facilitate access to research on audiovisual sources.

9 MEDIA (C9)

82. The WSIS Plan of Action recognises the essential role of the media in the development of the Information Society. This section summarises some of the relevant examples being undertaken in this area:

83. In cooperation with the Government of **Bulgaria**, the **Council of Europe** organised a "Media concentration and transparency seminar" in 2004. The objective of the seminar was to present the current situation in Bulgaria concerning the media and media transparency and to introduce participants to the experience of other European countries. Furthermore, it aimed to discuss the questions raised by the development of new technologies and their impact on media pluralism. Also in 2004, the Bulgarian Government initiated the "Bulgarian-Turkish roundtable on Freedom of expression and information as a factor for the promotion of cultural and media diversity".

84. In collaboration with the Indonesian Press Council, **UNESCO** has completed a series of seminars on press freedom in **Indonesia** since 2002. The seminars have been held in 11 major cities across Indonesia and gathered nearly 600 participants to gain an awareness and understanding of the importance of press freedom and the implications of Indonesian Press Law. UNESCO provided support and contributions to the law enacted in 1999.

85. To increase and encourage the role of media in building the Information Society, the **Economic Commission for Africa (ECA)** has introduced the AISI Media Award programme. The AISI Media Awards are aimed at individual journalists and media institutions based in Africa that are "promoting journalism, which contributes to a better understanding of the Information Society in Africa". They are intended to be an annual event, which will honour media institutions and professionals each year. The winners of the first AISI Media Award were announced in May 2003 and the second in September 2004.

86. **FAO** has over 30 years' experience in rural radio, with current projects focusing on the convergence of new and traditional technologies. Connecting rural radio stations to the Internet enables rural radio broadcasters to search for new information. FAO has established an agricultural information service and fact sheets on agriculture and food security for rural radio producers. This information is shared amongst a global network of radio producers and has regular interaction with 52 FAO-trained focal points throughout Anglophone and Francophone Africa.

87. **UNESCO** has conducted many activities in the media domain. These include:

- promoting freedom of expression including freedom of expression in cyber space;
- running the International Programme for the Development of Communication (IPDC).
- jointly organising with the **Asia-Pacific Institute for Broadcasting Development** (AIDB) the "Role of Media in the Information Society in Africa and the Arab States" and 'the Asia Media Summit 2005' respectively.

88. From 2005 to 2008, the Humanist Institute for Development Cooperation (**Hivos**), in the Netherlands, is running the programme, 'Making Civil Voices Heard'.

89. Regarding the balanced portrayal of gender, the **Canadian International Development Agency** (CIDA) has provided funding to the **South American Gender Equality Fund**, with the aim of advancing women's equal participation with men as decision-makers. The **Muslim Women's Researchers' Organisation** is also researching women's issues.

90. To cope with new media, **Switzerland** has launched Webforum. The **Egyptian Radio and Television Union** (ERTU) has started a teletext service via its main channels. The **Spanish Government** (CNICE) and **Positive Nett-Work Association** are issuing 'Digital Network' and PNYV respectively, which are international, online multimedia magazines. **Finland** has supported the development of regional news media in **Georgia**.

10 ETHICAL DIMENSIONS OF THE INFORMATION SOCIETY (C10)

91. The WSIS Plan of Action recognises that the Information Society should be subject to universally held values and promote the common good and to prevent abusive uses of ICTs. The following section summarises some of the relevant activities in this area.

10.1 Promoting respect for peace and fundamental shared values of freedom, equality, solidarity

92. At the national level, a number of different initiatives have been launched in this field:

- The **French Commission for UNESCO** organized an international conference on "The "Freedom of Expression in the Information Society". Three issues were raised: the new opportunities offered by ICTs to the freedom of expression and democracy, pluralism and cultural diversity; the obstacles and limits to the exercise of freedom of expression in cyberspace; and the regulation of contents on the Internet.

- **Switzerland's** ICT4Peace initiative studies and promotes the current use and future potential of Information and Communication Technologies (ICTs) in humanitarian and peace operations. It is funded by the Swiss Federal Government and administered by the University for Peace. ICT4Peace aims to: review the status of ICTs in humanitarian and peace operations; create a community of knowledge by networking and information exchange; promote and facilitate the identification of good practices in use of ICTs; and raise international awareness of the role that ICTs can play in responding to conflicts.

93. The **Council of Europe** has adopted the European Social Charter, which plays the role of safeguarding human rights. It sets out rights and freedoms concerning all individuals in their daily lives in areas such as: housing, health, education, employment, legal and social protection, movement of people and non-discrimination. It also establishes a supervisory mechanism guaranteeing the respect of individuals' human rights by Member States of the Council of Europe.

94. **UNESCO** promotes freedom of expression and freedom of the press as a basic human right:

- through awareness-raising and monitoring activities.
- by fostering media independence and pluralism as prerequisites to, and major factors of democratization, by providing advisory services on media legislation and sensitizing governments, parliamentarians and other decision-makers.
- by organizing a thematic meeting on freedom of expression in cyberspace at UNESCO Headquarters. The purpose of the conference was to discuss the challenges and opportunities this fundamental right encounters in the global network.
- by preparing the UNESCO World Report 'Building Knowledge Societies', which aims to strengthen the intellectual, strategic and ethical monitoring capacities of the international community and societies. This report will be published in 2005.
- by working with the International Federation of Library Associations and Institutions to prepare guidelines on "Freedom of Access to the Internet through Libraries". The intention of these guidelines is to support libraries worldwide in defining clear Internet policy objectives, priorities and services in relation to national and local community needs.

10.2 Increasing awareness of the ethical dimensions of ICT use

95. A number of initiatives and programmes have been launched in this field:

- The Government of **Australia** has established a Not-For-Profit community organisation, NetAlert Limited, which plays an advisory role, providing practical advice on Internet safety, parental control and Internet filters for the protection of children, students and families.
- The Government of the **Republic of Korea** has been conducting info-ethics education for teachers, students, parents of students and public servants since 2001. It has been offering teacher training courses to develop special resources for education on the healthy use of information, and is striving to publish textbooks and produce video content for a variety of educational needs.
- **Swiss Agency for Development and Cooperation** (SDC) has established Globethics.net. The goal of Globalethics.net is to strengthen ethical institutions and related individuals (research, publications, teaching) especially in developing countries and countries in transition by a global network of knowledge management and research partnerships in the field of ethics.
- The **Council of Europe** has elaborated a recommendation on "the Impact of Information Technologies on Health Care: the Patient and Internet". In the context of this recommendation, governments are expected: to take the steps necessary to develop a model framework for best practices; to support and participate in preparing guidance tools for better Internet practice; and to promote the concept of the health competent consumer and self-regulation and the use of ethical codes.
- The Canadian association "**Indigenous Media Network**" conducted a survey among indigenous peoples worldwide. A summary and report were produced, giving the views of indigenous peoples on the

challenges posed by the evolving Information Society to their cultures and identities and the potential it offers; this includes its ethical implications and indigenous peoples' perspectives on participating in building the Information Society on their own terms.

- The Not-For-Profit New Zealand association, **Internet Safety Group** (ISG), has set up a programme entitled NetSafe, which provides cybersafety education for all New Zealanders: children, parents, schools, community organisations and businesses. The ISG has been designated, by the Ministry of Education, as the "agent of choice" for cybersafety education in New Zealand. Also in New Zealand, the **SeniorNet** initiative gives older adults an opportunity to learn more about ICTs.

10.3 Protecting privacy and personal data and taking preventive measures against abusive uses of ICTs

96. A number of initiatives and programmes have been launched in this field:

- The Ministry of Communication and Information Technologies of **Azerbaijan**, in cooperation with **UNDP**, is implementing a National e-Government Network project. One important output of the project is the establishment and adoption of a civil service code of practice on the privacy and protection of data, and the security of state computer systems.
- The Government of **Colombia** has set up a national policy of telecommunications, in order to guarantee democratic values. The "Healthy Internet" project aims to prevent paedophilia and the exploitation of sexual tourism with minors on the Internet. For this purpose, administrative techniques have been developed to inform the community and sensitize opinion on child exploitation via the Internet, emphasizing prevention.
- In **Japan**, when the Ministry of Justice receives a complaint of an infringement of human rights (such as a likely invasion of privacy over the Internet) or when the Ministry of Justice considers it appropriate to begin investigations based on reports, the Ministry undertakes a prompt investigation. If facts are established indicating a case of human rights violation, appropriate measures are taken.
- The Government of **Latvia** has established the Data State Inspectorate (DSI), which is a public administration institution, operating under the Ministry of Justice. The DSI commenced its work in 2001 and is operating in accordance with the Personal Data Protection Law. This new administration aims to supervise the respect of human rights and fundamental principles regarding personal data protection.
- The Government of **Monaco**, in close cooperation with a Protection Association, has set-up concrete measurements for the protection of minors involved in violent or paedophilia-related content diffused over the Internet. Actions undertaken include: modification of the penal code in order to integrate concepts of protecting the minors from contents of a paedophile nature; sanctions against the diffusers of this type of content; and the study of technical solutions of filtering and parental control, which could be proposed to Internet users.
- To provide filtered Internet access to "clean" websites only, the Government of **Thailand** has limited access to certain websites. In addition, the Ministry of Information and Communication has established the position of Cyber-Inspector to handle cyber security and threats, and to promote a safer cyberspace. Its responsibilities include assisting law enforcement in tracking cyber crimes, blocking inappropriate web sites and dealing with spam.
- The **Australian Internet Industry (AII) Association** has drafted the Interactive Gambling Industry Code and the content Code of Practice, the aims of which are to provide a mechanism for Internet Service Providers to meet their legal obligations in dealing with Internet gambling matters and online content. The AII is also developing a Code of Practice setting out the appropriate procedures for cooperation between law enforcement agencies and ISPs, in relation to the detection and investigation of online fraud and other criminal activity, as well as security threats. In addition, the IIA is creating a Privacy Code, which aims to balance the responsibilities of government and industry within a co-regulatory framework.

- The **Council of Europe** has elaborated the "Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data," which was opened for signature on 28 January 1981. This Convention has, to date, been ratified by 31 states and signed by a further seven. The Convention was complemented in 2001 by an Additional Protocol on Supervisory Authorities and Trans-border Data Flows, which was drafted due to the increase in the flow of data across national borders.
- The **International Academy on Human Rights** (a French entity) has developed a document entitled the "Charter of ethics and common civility practices to the users of the Internet", while the local authority in **Brest**, **France** has created a website for the social appropriation of the Internet and of multimedia.

11 INTERNATIONAL AND REGIONAL COOPERATION (C11)

97. The WSIS Plan of Action recognises that international cooperation among all stakeholders is vital in its implementation. One longstanding example of cooperation is the Global Knowledge Partnership (Box 7). Other examples of cooperation include:

11.1 Examples of governmental development assistance programmes

98. The **Canadian International Development Research Centre (IDRC**) has a track record of sustaining partnerships through to long-term viability. Examples of IDRC's successful projects include the **Institute of Connectivity of the Americas**, **BellaNet**, the **Acacia Initiative** and **Pan-Asia Networking**.

99. The Ministère des Affaires Etrangères (MAE) of **France** supports the **development of information and communication systems** for the establishment of higher education and research in Africa. This project aims at promoting durable scientific and technological exchanges of information among twelve countries: Algeria, Benin, Burkina-Faso, Burundi, Cameroon, Ghana, Ivory Coast, Madagascar, Mali, Nigeria, Senegal and Tunisia.

100. Aid in the ICT sector used to focus mainly on programmes for the improvement of telecommunications infrastructure, but most efforts nowadays follow a cross-sectoral approach and seek to foster ICTs as an enabler of development, such as the Approach to ICT Policy of **Germany** (Federal Ministry for Economic Co-operation and Development). There is a special emphasis on rural areas, where market failures may impede rapid improvements in connectivity. For instance, the **KfW Development Bank** provides loans and grants to developing countries in all focal areas of Economic co-operation. **GTZ (German Technical Co-operation)** is conducting a number of ICT programmes in different sectors such as education, health and economic development.

101. The Government of **Japan** has been developing a range of measures to bridge the digital divide, to bring the benefits of ICTs to people and to promote further social, economical, cultural development with a central focus on Asia. The Ministry of Internal Affairs and Communications (MIC) and related ministries have been promoting the **Asia Broadband Program** , which seeks to make the region a global information hub, through the deployment of broadband platforms in Asia. These activities also contribute to Japan's Comprehensive Cooperation Package to Address the International Digital Divide, announced at the Kyushu-Okinawa Summit in July 2000, which consists of four pillars: (1) Strengthening the policy environment for disseminating ICTs; (2) Developing ICT infrastructure; (3) Developing human resources to underpin the dissemination of ICTs; (4) Active utilization of ICTs in the area of development assistance.

Box 7: The Global Knowledge Partnership

One of the longest-standing partnerships in the ICT field is the **Global Knowledge Partnership**, which describes itself as a "worldwide network committed to harnessing the potential of ICTs for sustainable and equitable development". It was founded in 1997, with initial funding from the World Bank and the Government of Canada, and its headquarters are located in Kuala Lumpur, Malaysia. It now boasts some 100 members in 40 countries. One of the partnership's principles is that different stakeholders come together as equals. Its main public activities are annual Global Knowledge Conferences, the most recent of which took place in Egypt in May 2005, as well as an ICT4D web portal.

102. The **United States** regulator, the Federal Communications Commission, is a sponsor and member of the board of directors of the United States Telecommunications Training Institute (USTTI) and in 2004 conducted seven specialized training courses for participants from all over the developing world. The USTTI is a Not-For-Profit joint venture between leading US-based communications and IT corporations and leaders of the Federal government.

103. The **European Union** has submitted a full stocktaking of the WSIS-related activities of its own Member States, and this was updated in June 2005. It is a comprehensive document (11 MB) that complements the individual activities submitted by Member States.

104. Other examples of national development assistance programmes submitted in the stocktaking database include **Belgium**'s support to WSIS-delegations from less developed countries, **Canada**'s Strategic Information Management Program (SIMP), **Estonia**'s "e-Governance Academy Foundation" (eGA) and **Italy**'s e-Governance for Development Initiative.

11.2 Other examples of international and regional cooperation

105. Other relevant examples include:

- The **Caribbean Community (CARICOM)'s** regional strategy for ICTs and Caribbean development will be pursued with urgency and focuses on maximising the benefits and potential of ICTs. This prioritizes the use of ICTs to improve the quality of life of people in the region.
- Child Helpline International is behind five draft resolutions at ITU's World Telecommunications Development Conference (WTDC-06), requesting Member States to pass resolutions recognizing the importance of children as a key group of future telecommunication users. Child Helpline further requested Member States to make available three or four-digit toll-free numbers earmarked for child helpline networks in their respective countries.
- **Cisco Systems** has initiated several cooperative activities, including the Cisco Networking Academy for Ministries. Some 230 infocentres have been created. Each Ministry provides the infrastructure investment in equipment and the budget to pay instructors and administrative staff. Cisco provides a wide coverage of curriculum through more than twenty Cisco Networking Academies.
- The Facilitation of Participation by member countries of the **Islamic Development Bank** in WSIS is intended to collect, sort and post relevant information on the web and for extending advisory and consultancy services, upon request, to support LDC participation in the Tunis phase of WSIS.
- The **International Institute for Communication and Development (IICD)** in the Netherlands assists developing countries to realize locally-owned sustainable development by harnessing the potential of ICTs. Established in 1997, it receives funding from the **Netherlands**, **Switzerland** and the **United Kingdom**.
- The work of the **Organisation for Economic Co-operation and Development (OECD)** in the area of Government Relations with Citizens and Civil Society reviews Member countries' efforts to strengthen access to information, opportunities for consultation and to encourage the active participation of citizens in shaping public policies. It also provides OECD Workshops & Global Forums.
- **UNCTAD** assists countries in the development of national ICT policies and strategies, with the objective of enhancing economic growth, trade and competitiveness, through technical assistance and training.
- The **Western Asia Regional Conference** was held in Damascus, 22-23 November 2004, organized by ESCWA in association with the Syrian Ministry of Communications and Technology and UNESCO. The objectives of this conference were to review which actions were being undertaken towards bridging the digital divide, adopt a regional action plan, promote partnerships, and launch key regional projects.
- Through its Information and Communication Technology Division, the **United Nations Economic and Social Commission for Western Asia (ESCWA)** produced a Regional plan of action for building the Information Society in the Arab region (RPoA). The RPoA puts forward a comprehensive strategic framework that aims at the creation of endogenous capabilities to build the Information Society and

Box 8. Connect the World

As part of its international commitment to promote development and connectivity, the International Telecommunication Union (ITU), together with around 20 other partners, launched in 2005 the "*Connect the World*" partnership. The initiative is specifically designed to encourage new projects and multi-stakeholder partnerships to bridge the digital divide.

Connect the World initiative comprises three key building blocks — Enabling Environment, Infrastructure & Readiness, and Applications & Services — which together constitute the primary areas that need to be addressed when developing concrete measures to accelerate ICT development. The partnership provides a showcase to promote them and in particular to meet the WSIS commitments, which include connecting all villages with ICTs (some 800'000 villages worldwide have no form of ICT connection so far) and reaching one half of the world's inhabitants by the year 2015.

enhance development in the region. The proposed strategic framework is based on ten key areas, partnership programmes and regional projects.

- **The World Bank** is involved in providing support to governments in the development of a pro-competitive policy and regulatory environment for the ICT sector. The Bank uses a range of instruments, such as primary loans, credits, grants, technical assistance, analytical and advisory activities. From 2000 to 2004, the World Bank Group has been active in the ICT sector in 80 countries, with a portfolio amounting to more than US $3 billion or 2.3 per cent of the Bank's total portfolio.
- **World Health Organisation (WHO)**'s **Health InterNetwork** is one of major initiatives of the UN Millennium Action Plan. It aims to bridge the digital divide in health by providing access to high quality, timely information for health professionals, researchers and policy-makers in developing countries, using the Internet. The core components of this public-private partnership are content, connectivity, capacity-building and policy.
- **World Intellectual Property Organization (WIPO)** is undertaking a wide variety of activities relevant to the WSIS process, including "Internet Domain Names and Trademarks", "Internet Domain Names and Other Identifiers", "IP Protection in Country-Code Top Level Domains (ccTLDs)", "IP Protection in the new generic Top Level Domains (new gTLDs)", "Multilingual Domain Names", "IT Case Facility", "Trademark Protection on the Internet" and "Intellectual Property and E-Commerce". WIPO also held a number of **policy and strategy-related meetings that touch upon key themes of the Information Society**.
- Other relevant assistance programmes of inter-governmental organisations include the **International Maritime Organisation**'s Integrated Technical Co-operation Programme.

11.3 Regional initiatives

106. Regional initiatives aimed at implementing the WSIS Plan of Action (in addition to those mentioned elsewhere in the document) include:

- **ALECSO** (The Arab League, Educational, Cultural and Scientific Organisation): The Arab Strategy for Informatics;
- **European Commission**, DG Information Society: Exchanges and Co-operation on Regulatory Frameworks;
- **IADB** (Inter-American Development Bank): Project development support programmes and Inter-sectoral programmes;
- **UN ECA** (Economic Commission for Africa): Information Policy Development and Implementation;
- **UN ECLAC** (Economic Commission for Latin America and the Caribbean): National strategies for the Information Society;
- **UN ECE** (United Nations Economic Commission for Europe): South-Eastern Europe Ministerial Conference on the Information Society;
- **UN ESCAP** (Economic and Social Commission for Asia-Pacific): Regional follow-up to the Geneva Phase and preparation for the Tunis Phase of the WSIS;

- **UN ESCWA** (United Nations Economic and Social Commission for Western Asia): Regional profile of the Information Society in Western Asia.

12 ACHIEVING WSIS OBJECTIVES, GOALS AND TARGETS

107. The Geneva Plan of Action lists ten targets for ICT connectivity and access to be achieved by 2015, the first globally agreed targets for measuring ICT development. The WSIS targets have a wide focus, including, for example, connectivity in schools and hospitals. For this reason, they can assist in using ICTs to help achieve the development goals of the Millennium Declaration.

108. There is a high degree of variability in the level of achievement of different goals. Some of the goals are also open to different interpretations and statistical measurement. Nevertheless, most of the goals should be realisable within the planned time frame (see Table 3).

109. Most of the work being carried out on the WSIS Action Lines discussed above will contribute to achieving the WSIS commitments. Nevertheless it is worth highlighting certain specific projects:

- The Partners to Connect the World platform is particularly relevant to commitments a) – f) and j) (see Box 8).
- The **European Commission** has identified 14 policy indicators and 22 supplementary indicators to benchmark regional progress towards the Information Society. These complement the targets identified in the WSIS Plan of Action, and in some cases, are identical to them.

Table 3: The WSIS commitments, and the prospects for achieving them by 2015

WSIS Commitment	*Comments*	*Prospects for achieving goal by 2015*
a) to connect villages with ICTs and establish community access points.	There are around 2.7 million "villages" worldwide, of which around three-quarters already have telephone service. However, coverage of community access points is not so widespread and, in many cases, there is no formal measurement of their number.	**Good** prospects for connecting all villages by 2015. **Poor** prospects for putting community access points in each village.
b) to connect universities, colleges, secondary schools and primary schools with ICTs.	Data are not widely available on a consistent basis, but those for countries where data is available, around 100 per cent of universities and colleges, 95 per cent of secondary schools and 90 per cent of primary schools are ICT-connected.	**Very good** prospects for connecting all universities, colleges and secondary schools by 2015. **Good** prospects for primary schools.
c) to connect scientific and research centres with ICTs.	Assuming that most scientific and research centres are associated with universities; around 100 per cent coverage is already achieved.	**Excellent** prospects for connecting all scientific and research centres by 2015.
d) to connect public libraries, cultural centres, museums, post offices and archives with ICTs.	There are around 41'000 museums worldwide of which around 37'000 have websites. There are around 660'000 public postal establishments. The percentage of those offering online services ranges from 26 per cent (Africa) to 88 per cent (industrialized countries), according to UPU.	**Excellent** prospects for connecting public libraries, museums, and archives. **Very Good** prospects for post offices and cultural centres.
e) to connect health centres and hospitals with ICTs.	Data are not widely available on a consistent basis, but it estimated that there are more than 40'000 hospitals worldwide.	**Excellent** prospects connecting hospitals. **Very Good** prospects for health centres.
f) to connect all local and central government departments and establish websites and email addresses.	Out of 191 UN Member States, 178 had a central government website by 2004. Measurement by local government and central government departments is not consistently available.	**Excellent** prospects for connecting central governments and departments. **Very Good** prospects for local government.
g) to adapt all primary and secondary school curricula to meet the challenges of the Information Society, taking into account national circumstances.	This target does not lend itself readily to measurement. Within Europe, ICTs are not yet included in the minimum core curriculum in the two countries for which data is available.	**Very good** prospects for ICTs in the curricula in secondary schools. **Good** prospects for primary schools.
h) to ensure that all of the world's population have access to television and radio services.	In 2002, global population coverage was around 95 per cent for radio and 86 per cent for television.	**Excellent** prospects for radio coverage. **Very good** prospects for TV.
i) to encourage the development of content and to put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet.	There are over 6'000 languages in the world, many of which do not have a written alphabet and are spoken by small groups of people. Nevertheless, progress is being made on implementing multilingual domain names and linguistic diversity is increasing on the Internet.	**Very good** prospects for achieving technical conditions for all scripts to be available on the Internet, but **poor** prospects for all languages to be in use.
j) to ensure that more than half the world's inhabitants have access to ICTs within their reach.	Around 80 per cent of the world's inhabitants are within range of a mobile signal. Household ownership of phone service (fixed or mobile) stands at around 40 per cent worldwide. Personal ownership of mobile phones stands at around 30 per cent.	**Excellent** prospects for achieving 50 per cent household coverage. **Very good** prospects for achieving 50 per cent personal ownership of ICTs.

Source: Based on ITU (2003) *World Telecommunication Development Report: Access Indicators for the Information Society*, and World Bank (2005) *Tracking ICTs: World Summit on the Information Society (WSIS) Targets*.

- A number of efforts have been launched to bridge the digital divide by developing low-cost "thin-client" equipment to substitute for personal computers. These include the Nivo, the Simputer and **MIT**'s US$100 laptop programme. Similarly, Pan-African mobile communications service provider **MTN** has launched a "village-phone", using solar power, which could be used to meet target a). In February 2005, around 50 mobile phone manufacturers announced a joint effort to develop low-cost cellphones (US$30 and below), which could help meet target j).

13 DIGITAL SOLIDARITY AGENDA

110. The Tunis Phase of the WSIS will adopt agreed text on the financing of ICTs for Development. This refers to the creation of the Digital Solidarity Fund, established in Geneva, as an innovative voluntary financial mechanism with the objective of transforming the digital divide into digital opportunities for the developing world by focusing mainly on local level needs and seeking new voluntary sources of "solidarity" finance. The Fund was launched in Geneva on 14 March 2005 and initial contributions have been received from a number of sources.

111. There are a number of other initiatives related to digital solidarity. These include:

- In **Egypt**, the National Telecom Regulatory Authority intends to establish a universal service fund funded through contributions from licensed operators, to support the extension of basic telecommunication services to underserved areas. ITU research shows that by 2004, some 39 countries had established universal service funds and a further 31 were planning to do so.
- In **Hong Kong, China**, a digital solidarity fund was launched in November 2003 and has a strong track record in funding projects aimed at digital inclusion, with initial funding of HK$ 1 million (around US$130'000). One of the first projects to be supported is the Cybersenior network development association, which aims to look at how the rapid development of IT has affected the elderly, psychologically and socially. Their work has included training classes, awareness-raising events and the establishment of a portal, www.hk1001.com, to provide a platform for elderly people to share their IT experiences.
- The **OECD** Development Assistance Committee (DAC) has submitted as a WSIS contribution a recent report entitled "Good Practice Paper on ICTs for Economic Growth and Poverty Reduction".
- The UN Capital Development Fund and Microsoft are developing software for microfinance for the ACLEDA Bank in Cambodia, which could later be used elsewhere.

14 FOLLOW-UP AND EVALUATION

112. Para 28 of the WSIS Plan of Action sets out a series of actions relevant to follow-up and evaluation. This section summarizes some of the activities being undertaken in this area.

14.1 Evaluation and benchmarking through statistical indicators

113. A group of international and regional agencies concerned with ICTs, including **Eurostat, ITU**, **OECD, UNCTAD**, the **UNESCO Institute for Statistics, the UN ICT Task Force** and the **World Bank**, and **UN Regional Commissions**, launched the Partnership on Measuring ICTs for Development at UNCTAD XI in June 2004. The main objective of this is to promote the advancement of comparable ICT data at the global level by: defining and analysing internationally comparable ICT indicators and developing methodologies to collect these indicators; assisting developing countries in the collection of ICT statistics; helping countries to implement and promote their ICT policies and to track progress towards attainment of the MDGs; to assist developing countries to build capacity to monitor ICT developments at the national level; and to develop a global database on ICT indicators. A WSIS Thematic Meeting on "Measuring the Information Society" was held in Geneva in February 2005 and agreed on a core set of ICT indicators related to infrastructure, households, businesses and the ICT sector.

114. In preparation for the Thematic Meeting, **ITU** held a donor's meeting in October 2004 and as follow-up, **OECD** held a Global summary meeting in early 2005. It is planned that the Partnership will hold a parallel event during the Tunis Phase of the Summit.

115. As part of the work of the Partnership, a number of regional meetings were held, including those organised for:

- Africa, by **UN Economic Commission for Africa** (ECA) and **ITU**, in Gaborone, October 2004.
- Asia-Pacific, by **UN Economic and Social Commission for Asia-Pacific** (ESCAP), in Bangkok, October 2004.
- Latin America and the Caribbean, by **UN Economic Commission for Latin America and the Caribbean** (ECLAC) in Santiago de Chile in November 2004;
- Western Asia, by UN Economic and Social Commission for Western Asia (ESCWA) in Beirut in June 2005, namely the Capacity-building workshop on Information Society Measurements: Core Indicators, Statistics, and Data Collection (June 2005), which was preceded by the Roundtable on Information Society indicators and profiles in Western Asia in October 2004.

116. **ITU** maintains an ICT Free Statistics site, which covers the collection, compilation and dissemination of telecommunication sector indicators. The data are extracted from the ITU's statistical publications, which include the Yearbook of Statistics, World Telecommunication Indicators Database, the ITU Internet Reports and the World Telecommunication Development Report. Among other information freely available on the ITU website are country case studies of ICT development and a database of regulatory information and reports. This website further provides information on the ITU's other information-sharing activities, including its leading role in the monitoring of the MDGs and the Partnership on Measuring ICT for Development.

117. **UNCTAD**'s Measuring ICT Website, launched in November 2003, provides an online source of information on indicators, methodologies and statistics related to the Information Society, as well as a forum that allows practitioners from all countries to engage in discussions on e-measurement-related topics and to further develop conceptual and methodological work.

118. **UN ESCWA** published a study entitled "Information Society Indicators" which addressed: criteria for benchmarking and monitoring progress towards the goals specified in the WSIS Plan of Action; the main aspects of the Information Society that should be measured; appropriate indicators and indices for measuring and monitoring the main aspects of the Information Society; and the opportunities created by the use of ICT. ESCWA also organised the Roundtable on strategies and plans of action for building the Information Society in Western Asia, in September 2004.

119. In November 2004, the Ministry of Transport and Communications of **Mexico**, together with **ITU**, organised "The global indicators on community access to ICTs". Its main objective was the revision of community access indicators, definitions, collection, methodology and dissemination.

120. In January 2005, the Spanish public telecommunication operator, **Telefónica**, published a report on the development of the Information Society in Spain and its territories, which presented a compilation of good practices initiated by Spanish independent communities.

14.2 Composite ICT development index

121. Para 28 a of the WSIS Plan of Action calls for the creation of a composite ICT development (digital opportunity) index. A number of different initiatives have been launched with a view to developing this new index:

- **ITU**, in cooperation with the Korean Agency for Digital Opportunity and UNCTAD, has developed a methodology for a digital opportunity index (DoI), as called for in the WSIS Plan of Action, para 28a. This methodology has been initially applied to 40 major developed and developing economies. Following discussion at the WSIS Thematic Meeting on "Multi-stakeholder partnerships for bridging the digital divide", held in Seoul, 23-24 June 2005, this methodology has been further refined and discussed at a Statistical parallel event during PrepCom-3.. The DoI is based on the core list of indicators defined

by the Partnership at their February 2005 meeting. The methodology will be published at the Tunis Summit and will then be extended to a full range of economies,

- Building on Orbicom's "Monitoring the Digital Divide and Beyond" report, the **Orbicom Digital Divide Project** has developed in the ICT Opportunity Index with the ITU/BDT, in partnership with International Development Research Centre (IDRC), the Canadian International Development Agency (CIDA), La Francophonie, and United Nations organisations such as UNESCO and UNCTAD. It represents a collaborative endeavour in direct response to the WSIS Plan of Action, which called for the development and the launching of a composite ICT Development Index. It provides the international community with a measuring instrument, complemented with several in-depth analytical chapters.
- **UNCTAD** has published "The Digital Divide: ICT Development Indices 2004" report, which evaluates countries' capabilities in ICTs and analyses changes in these capabilities over time, with a view to benchmarking their levels of development. The report provides a cross-country analysis of more than 150 countries in terms of access and connectivity. The report also addresses the question of inequality and divergence in ICT capabilities between countries in the international digital divide. UNCTAD has also developed "The ICT benchmarking tool" which provides policy-makers in developing countries with a useful interactive tool to assess their countries' ICT capabilities (in connectivity and ease of access) and to compare them against those of other countries. Finally, UNCTAD is working on measuring the use of ICTs by direct business contributions.

14.3 Tracking global progress in the use of the ICTs

122. There are many initiatives and programmes in the tracking of the use of ICTs, which include:

- The **Latvian** Governmental Central Statistical Bureau has developed a public statistical database containing annual and short-term data and the results of the population and agricultural census. The database allows access to official statistical information, which is essential for the Information Society.
- The **Spanish** Observatory of the Telecommunications and the Information Society has become a centre of reference for the tracking, analysis and diffusion of the situation of the ICT sector, as well as of the audio-visual sector and the Information Society in Spain. Results of the compilation of indicators are published on the net.
- The **Swiss** Federal Statistical Office provides indicators on the Information Society in Switzerland, describing the infrastructure, production and use of ICTs in various areas of society.
- The National Electronics and Computer Technology Centre in **Thailand** (NECTEC) is carrying out a research programme focusing on Thailand's Internet traffic entitled "The Internet Information Research (IIR)". NECTEC has also launched the "Thailand ICT Indicators" project, which is aimed at monitoring national ICT development.
- The **US Agency for International Development** (USAID) has carried out a worldwide ICT Inventory: the Office of Energy and Information Technology conducted an e-mail survey of contacts in all their Missions requesting information about their ICTs for development activities, which resulted in a database of 351 ICTs for development activities worldwide.
- The Arab League, Educational, Cultural and Scientific Organisation (ALECSO) organized a consultation meeting about statistical indicators to be used for measuring the progress of narrowing the digital gap in developing countries, with special emphasis on the Arab countries. The objectives of the meeting were extended to share experiences between the developing countries in future research and studies. It also carried out a training seminar on Indicators, using VSAT satellite conferencing technology, in September 2005.
- Within the overall project to track the Millennium Development Goals (MDGs), **ITU** has been working closely with the UN and other organisations and has specific responsibility for Target 18 "In cooperation with the private sector, to make available the benefits of new technologies, especially information and communications." ITU compiles and provides the three indicators used to track Target 18 and contributes to the UN Secretary-General's annual report on the MDGs.

- The **Observatory for the Information Society in Latin America and the Caribbean** (OSILAC) has been carrying out statistical work since July 2003, with the support of the **Institute for Connectivity in the Americas** (ICA). Its main objective is to obtain and update data related to the measurement of the Information Society in the region. With a participative approach aiming to integrate methodologies, its focus is on enhancing the importance that national statistics agencies attach to the collection, standardization, processing and distribution of ICT indicators.
- The **UN ICT Task Force Working Group on ICT Indicators and MDG Mapping**, led by the Government of Canada, is preparing a contribution to the WSIS entitled "The Millennium Development Goals & ICT – Measuring, Monitoring and Analyzing ICT impacts". The Task Force has also been involved in the work of the Secretary-General's Millennium Project Task Force 10 and contributed a chapter on ICTs and MDGs.
- **UNESCO** has published a study entitled "Measuring and Monitoring the Information and Knowledge Societies: a Statistical Challenge" as one of its inputs to the first phase of WSIS in 2003. It focused on measurement issues with regard to ICTs and gave an overview of existing data, as well as identifying gaps where further data are needed.

14.4 Gender-specific indicators on ICTs

123. Para 28 d) of the WSIS Plan of Action calls for the development of gender-specific indicators on ICT use and needs.

- Through the Institute of Women, the Ministry of Work and Social Affairs of **Spain** is publishing statistical data about the situation of women in Spain (including on the Web). The areas covered include the following: demography, family, education, employment, health, decision-making, violence and social inclusion and exclusion.
- In April 2000, **Cisco Systems**, Inc., and the Cisco Learning Institute (CLI) joined forces to develop their "Gender Initiative". This project aims to increase the access of women and girls to IT training and career opportunities, beginning with the Cisco Networking Academy Program. This is accomplished through research, targeted gender projects, a database of best practices, marketing, a gender module and building a system of partners. This Gender Initiative has been implemented in many countries (see the case of Jordan, Box 9) and has included targeted gender projects, in partnership with several international organisations, such as **UNIFEM**, **UNDP**, **ITU**, and **USAID**, as well as partners from business, such as as **Hewlett Packard**'s Information Technology Essentials and **Panduit**'s Networking Infrastructure Essentials.
- The **Council of Europe** has organized a workshop on "good" and "bad" practices regarding the image of women in the media, the latter including the trafficking in human beings for the purpose of sexual exploitation. It also adopted a recommendation on the balanced participation of women and men in political and public decision-making positions in the media, including management, programming, education, training, research and regulatory bodies. The Council of Europe is also supporting training and awareness-raising for students of journalism and media professionals on questions linked to gender equality and how to avoid sexist stereotypes and sexism.
- **ITU** has launched a Special Initiative on Gender Issues and is collaborating with **ORBICOM** to develop appropriate indicators to allow a more complete understanding of the digital divide. Data disaggregated according to gender will also be collected, analysed and updated.

Box 9: Achieving e-quality in the ICT sector - Jordan

Despite the fact that only a small portion of Jordan's female population is economically active and female illiteracy rates have dropped considerably over recent decades, an ambitious partnership has been established to reverse the trend, joining the efforts of the **Government of Jordan**, the **US Agency for International Development** (USAID), **Cisco Systems** Inc., the **Cisco Foundation** and the **United Nations Development Fund for Women** (UNIFEM).

Launched in 2002, the project has established 10 Cisco Networking Academies across the country. The project activities are aimed at bridging both the digital and the gender divide. Working toward enhancing the Jordanian women's skills, knowledge and access to information, the initiative seeks to empower women and create a gender sensitive policy environment. Giving women a competitive edge in the job market, ICTs contribute thus to mainstreaming women participation in all fields of society development.

14.5 Best practices and success stories

124. WSIS Plan of Action Para 28 e) calls for the development and launch of a website on best practices and success stories. A number of initiatives are underway:

- As a contribution to Tunis phase of WSIS, the Government of **Spain** has prepared a book reflecting the vision of experts from the private sector and civil society entities relating to some aspects of the Information Society and particularly a survey on good practices and success models that can have a direct influence on social and economic development. The Government of Spain also made a similar contribution to the Geneva phase of the WSIS.
- Since 2002, **ITU** has also been compiling and publishing a website of ICT success stories, which highlight the successful application of ICTs in different sectors of the economy and society, and in narrowing gender disparities. ITU has also launched the Global Regulators Exchange (G-REX), a password-protected website for national regulatory authorities, policy-makers and the regulated industry. This forum facilitates the exchange of best regulatory practices through its hotline and online conferences.
- The **Global Knowledge Partnership Portal (GKP)** is collecting information on projects and events illustrating the benefits of using ICTs in development, particularly successful (see Box 7). GKP intends to make a knowledge contribution to both the WSIS (Tunis Phase) and the Millennium+5 Summit in 2005, which will review the world's progress on the Millennium Development Goals (MDGs).

15 NEXT STEPS

125. All stakeholders are invited to make further submissions to the stocktaking database, and to update existing ones, using the online questionnaire available at: http://www.itu.int/wsis/stocktaking/scripts/q.asp. The Stocktaking Database will continue to be open for new submissions even after the conclusion of the Tunis Phase and will hopefully provide a lasting legacy of the WSIS process.