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Global Youth Summit in Costa Rica

***Young people define
the future they want***

Broadband Commission issues major reports

- ***State of broadband***
- ***Gender divide in
broadband access***
- ***Disability and
development***



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■ Young people Partners today, leaders tomorrow

**Dr Hamadoun I. Touré,
ITU Secretary-General**



ITU/P.M. Viot

The BYND 2015 Global Youth Summit was an amazing event, organized by ITU and the Presidency of Costa Rica. With the Millennium Development Goals concluding in 2015 (hence the name Beyond 2015), work on defining the post-2015 sustainable development agenda is now well under way, and we felt it was important to make sure that young people are given a voice that could be heard by decision-makers throughout the world.

The summit provided a platform for young people aged 18–25 to ensure their inclusion in the most important decisions of the 21st century, and its outcome — the Youth Declaration — is a powerful statement from young people giving their own views on the role that information and communication technologies (ICT) should play in the post-2015 development agenda.

The summit was held in Costa Rica from 9–11 September 2013 at the personal invitation of President Laura Chinchilla, who is also Patron of the ITU Child Online Protection initiative. After the summit, President Chinchilla presented the Youth Declaration to the 68th session of the United Nations General Assembly.

The Broadband Commission for Digital Development is proud of its role in making the Global Youth Summit happen. The summit was inspired by the Broadband Commission Working Group on Youth and

Broadband, which was set up in 2011, and on a personal level, I am proud to chair that Working Group, which was one of the driving forces behind the creation of the summit.

During the summit, I had the tremendous pleasure of attending the launch of the TECNOBUS initiative to encourage the safe, responsible and productive use of ICT, and to help strengthen digital citizenship. TECNOBUS is a mobile hot spot, fully equipped with cutting-edge technology offering connectivity 24 hours a day, seven days a week, and staffed by a highly trained professional team. It will bring knowledge to disadvantaged communities, particularly those facing challenges in terms of social exclusion. I was also pleased to make off-site visits to the *Museo del Niño*, relating to Child Online Protection, and to a Disney initiative called Train-the-Trainers, where I was thrilled to see future leaders of the world at work.

The young people of BYND 2015 have created a movement that I am sure will become ever-stronger. They consider their Declaration not as an outcome, but as a starting place for continued dialogue.

Young people must be included as full partners in the post-2015 process — so that they can participate in shaping the future they want.



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■ ITU at a glance



ITU and Republic of Korea sign host country agreement for Plenipotentiary Conference in 2014

In Seoul on 21 October 2013, ITU Secretary-General Dr Hamadoun I. Touré and the Republic of Korea's Minister of Science, ICT and Future Planning, Dr Mun-Kee Choi, signed a host country agreement for the ITU Plenipotentiary Conference in 2014 (PP-14). The conference will take place in the port city of Busan in the Republic of Korea, at the Busan Exhibition and Convention Center (BEXCO), from 20 October to 7 November 2014.

Speaking at the signing ceremony, Dr Touré said "This agreement is a major landmark on the road to PP-14. A sound and solid host country agreement is indispensable to a successful conference, and I am very pleased to see that, here in the Republic of Korea, the internal preparatory process is also moving forward with confidence." Mr Choi expressed the

view that "Through its hosting of ITU's PP-14, the Republic of Korea will showcase its status as an ICT powerhouse to the international community." A number of side-events are being planned by the Government.

The Plenipotentiary Conference is the top policy-making body of ITU. Held every four years, the conference sets ITU's general policies, and adopts four-year strategic

and financial plans. The conference elects the senior management team of the organization, the members of its governing Council and the members of the Radio Regulations Board, and — at the request of its members — addresses important matters related to ICT.

The PP-14 logo, shown here, represents radio waves, with the five colours standing for the five ITU regions. ■



Republic of Korea's Minister of Science, ICT and Future Planning, Dr Mun-Kee Choi and ITU Secretary-General, Dr Hamadoun I. Touré, after signing host country agreement for PP-14



Getty Images

Qatar to host ITU Telecom World 2014 in Doha

ITU announced on 26 October 2013 that, following a competitive selection process among bidding ITU Member States, Qatar has been selected as host country for ITU Telecom World 2014. The event will take place in Doha in December 2014, at the Qatar National Convention Centre. It will bring together influential global leaders in the field of information and communication technologies (ICT) — from both the public and private sectors — to engage in strategic debate, knowledge-sharing, innovation showcasing and networking at the highest level.

Qatar has appointed the international communications company Ooredoo

to help organize ITU Telecom World 2014. Ooredoo, formerly known as Qatar Telecom (Qtel Group), is the foremost communications provider in Qatar and a global company serving 90 million customers across the Middle East, North Africa and Southeast Asia.

“We are delighted that Qatar, one of the world’s most advanced and committed adopters of cutting-edge technology, will host ITU Telecom World 2014”, said ITU Secretary-General Dr Hamadoun I. Touré.

The Chairman of the Board of Directors of Ooredoo, Sheikh Abdullah Bin Mohammed Bin Saud Al Thani, stated that “As part of our 2030 vision, Qatar is

pushing ahead with its national strategy to build a knowledge-based economy and drive global competitiveness. This makes our nation the ideal host for ITU Telecom World 2014, which has made its mission to promote social development through advanced technology. We are proud to be playing a key role in assisting the State of Qatar with this important international debate. Mobile technology helps to enrich people’s lives, and we are sure the discussions and decisions made possible by the ITU Telecom World 2014 event in Doha will have an essential impact.” ■

Green Standards Week

Experts call for an eco-rating scheme for mobile devices

At the third ITU Green Standards Week, held in Madrid, Spain, on 16–20 September 2013, experts called for a new, globally aligned eco-rating scheme for mobile devices. The proposed scheme would empower consumers to make informed purchasing decisions based on a standardized assessment of a mobile phone's environmental impact. The scheme would extend across networks, manufacturers and national boundaries.

"Consumers are increasingly looking to make sustainable purchasing decisions. A key problem has been a bewildering array of eco-rating schemes. I applaud this initiative that will drive green innovation and allow us all to make informed decisions when we purchase mobile devices", commented ITU Secretary-General, Dr Hamadoun I. Touré. Organizations working with ITU's Telecommunication Standardization Sector on the new scheme include device makers Alcatel-Lucent, Apple, BlackBerry, Fujitsu, Huawei, Motorola, Nokia and Samsung, operators AT&T, Orange, KPN, Telefónica and Vodafone, and industry partners including the GSMA.

For industry, the new scheme will simplify the process of gathering and processing eco-efficiency information. For consumers, it will provide an easy-to-understand and credible rating that allows them to choose mobile devices with a lower environmental impact.

Criteria being considered for the eco-rating scheme include carbon footprint, battery life, the use of certain chemicals and rare metals, packaging and recyclability. The standard will be developed in accordance with principles such as lifecycle assessment, simplicity, transparency, feasibility and verifiability.

Francisco Montalvo, Telefónica's Global Director of Devices, says that "Telefónica uses environmental criteria — including energy consumption, CO₂ emissions and recyclability — to evaluate and select devices. But in the absence of a common methodology, we have seen the great difficulty of each manufacturer in reporting the details of their devices. There is clearly a strong need for a common framework to enable industry to implement an informative rating scheme."

Smart cities

A definition of a "smart sustainable city" is required in order to be able to align international standards and other legal documents referring to this topic. During Green Standards Week, experts worked towards agreement on such a definition, and this work will be progressed in ITU's Focus Group on Smart Sustainable Cities, whose participants include representatives of many municipalities around the world.

E-waste

In the area of e-waste, experts highlighted the need to improve statistics and coordination. They also encouraged the further implementation of waste-reducing standards such as ITU's universal charger Recommendation (ITU-T L.1000), which has the potential to save 82 000 tonnes of e-waste per year.

Winning idea

Green Standards Week saw Belarusian Andrey Sryvov awarded first prize (USD 5000) in the 3rd Green ICT Application Challenge for his application "Greenyplay". Mr Sryvov's winning idea uses gamification to encourage recycling, with a system of achievements and rewards.

Annual event

Green Standards Week is an annual event organized by ITU to raise awareness of the importance and opportunities of using ICT standards to build a green economy. This year, the event was hosted and sponsored by Telefónica. ■



*A universal charger
plugged into a
mobile phone*

European Parliament calls for universal mobile phone charger for all makes

ITU standard fits the bill

In September 2013, the Internal Market Committee of the European Parliament proposed, in an amendment to a draft law on radio equipment, that a universal charger for all mobile phones should be introduced.

The committee also deleted a proposed rule that would have required manufacturers to register certain categories of devices before placing them on the market. "We urge member states and manufacturers finally to introduce a universal charger,

to put an end to cable chaos for mobile phones and tablet computers", said rapporteur Barbara Weiler, adding that "we have changed key points in the Commission draft to avoid interference between different radio equipment devices while ensuring that small firms will not face a heavier administrative burden".

In proposing the amendment, members of the European Parliament say that radio equipment devices and their accessories, such as chargers, should be

interoperable. They believe that a universal phone charger would make mobile phones simpler to use and cut costs and waste for users. They therefore propose that the new radio equipment rules should oblige manufacturers to make mobile phones compatible with a universal charger. The European Council will further look into the proposed amendment.

Meanwhile, ITU is calling for the inclusion of a specific reference to its global universal charger standard, known as

Recommendation ITU-T L.1000. This standard, developed by ITU's Telecommunication Standardization Sector (ITU-T), has been approved by 193 Member States and around 700 private-sector companies. It has already been widely adopted by device manufacturers and supported by service providers around the world.

ITU Secretary-General Dr Hamadoun I. Touré says "With ITU's universal charging solution we have a common-sense remedy to the very challenging problem of e-waste that can be applied to the widest possible range of mobile devices. I urge the European Parliament to include specific reference to ITU's globally agreed standard in the future Directive. This will allow manufacturers to profit from lowering unit costs of production through economies of scale while also limiting device duplication, reducing the strain on raw materials and enabling significant reductions in e-waste."

The ITU universal charger standard expands the application of external power

adaptors to the vast majority of mobile devices, encompassing second to fourth generation (2G/4G) mobile phones, cordless phones, MP3/MP4 players, tablet computers, cameras, wireless headphones and devices using the Global Positioning System (GPS). The standard is built with the flexibility needed to take account of differences in regional requirements. It prioritizes energy efficiency, an extended device lifetime, and the reduction of greenhouse gas emissions and e-waste. It also specifies that a detachable cable is mandatory, thereby allowing for reuse of the charger and cable for a variety of mobile phones and other devices.

With as many as 70 per cent of mobile phone users now owning standardized chargers, an important next step will be to stop routinely shipping chargers with new phones. Studies have shown that consumers are warming to the concept of a universal charger. In a recent market trial, a United Kingdom operator, O2,

found that given a choice, 82 per cent of customers bought a phone without a charger. The resulting savings in e-waste are potentially enormous, since consumers around the world throw away an estimated 82 000 tons of redundant chargers each year. Mandating the use of ITU's universal charger would have a beneficial effect on developing countries, which currently bear the brunt of the e-waste problem.

In addition to the ITU-T L.1000 standard for mobile devices, ITU has also published a universal charging solution for stationary devices such as modems, set-top boxes, home networking equipment and fixed telephones. Recommendation ITU-T L.1001 "External universal power adapter solutions for stationary ICT devices" will further reduce the number of chargers manufactured by widening the range of compatible devices and facilitating adapter reuse and recycling. ■

Costa Rican President presents Global Youth Summit Declaration to United Nations General Assembly



President Laura Chinchilla at the 68th Session of the United Nations General Assembly

On 24 September 2013, Costa Rican President Laura Chinchilla symbolically presented to the 68th session of the United Nations General Assembly the final Declaration of the BYND 2015 Global Youth Summit. The Declaration was adopted in San José on 11 September by thousands of young people from every continent. "We believe it will be a very relevant input in the discussion of the post-2015 development agenda", she said, highlighting the contribution of young people to the new development agenda through innovation and the use of new technologies.

"Increasingly, innovation, technology, education and culture are recognized as promoters of development, and there is a growing consciousness of the need to actively incorporate youth in these endeavours", President Chinchilla told participants, saying that Costa Rica was honoured to have hosted and organized the summit along with ITU.

From 9 to 11 September 2013, some 700 young people attended the BYND 2015 Global Youth Summit in the Costa Rican capital of San José, and more than 3000 followed the event online, contributing their ideas from 43 hubs or workshops in 25 different countries using social media channels.

President Chinchilla drew the attention of world leaders to the Declaration, which urges governments to provide more flexible, dynamic and open means of governing in order to reach more people more easily than currently possible. The Declaration also calls for education systems that equip students not only with theoretical knowledge, but also with a practical mix of marketable, innovative and relevant skills needed to compete in the global digital economy.

President Chinchilla also urged the international community to implement a preventive approach both to ward off conflicts and to avert the effects of global warming and climate change.

"We cannot remain inactive while global warming increases, ocean levels rise, and the survival of several small island States is threatened", she said, commending Secretary General Ban Ki-moon's plan to convene a summit on climate change next year.

"We promote a model of development based upon harmony with nature, solidarity and social inclusion, economic and trade opening, development of our human resources, and innovation. We realize that development is futile if it is not founded on a profound respect for human dignity and the rights and well-being of the people, including their day-to-day safety", she explained.

Source: Office of the Secretary-General's Envoy on Youth

Protecting tomorrow's leaders from today's cyberthreats

Dame Patience Goodluck Jonathan

First Lady of Nigeria, President of the African First Ladies Peace Mission and ITU Child Online Protection Champion

Speaking at the Global Youth Summit in San Jose, Costa Rica, Dame Patience Goodluck Jonathan said "As I entered this hall, I looked around to appreciate the faces of the emerging leaders of the world. From what I saw on your faces, I feel proud as a mother that the future of the world is brighter than we think. I say so because I realize your strength and promise as leaders of tomorrow. I see amongst you potential outstanding leaders of the world. We are here today because we place a high premium on your well-being and safety. We are deeply concerned about a new kind of danger rising to threaten the joy of our young ones — the threat of cyberspace."

Dame Patience praised President Laura Chinchilla of Costa Rica, Patron of the ITU Child Online Protection initiative, for her convening this crucial summit. She then suggested areas in which opinion leaders and policy-makers can make a positive impact and assist in ensuring a safe and secure cyberspace. "We can protect our youths from online abuses by using our dignified positions to engage in widespread advocacy, youth enlightenment, proper mentorship, parental control, training of youths as online protection ambassadors, and regular consultations with the young ones," she said.

Since her investiture at ITU headquarters as Child Online Protection Champion on 22 July this year, Dame Patience has already taken practical steps in her new role. She organized



Dame Patience Goodluck Jonathan at the BYND 2015 Global Youth Summit in San Jose, Costa Rica

Nigeria's first-ever National Youth Online Protection Summit, held on 3 September 2013, under the theme "The Internet: Emerging, Threats and Solutions for the Youths". This summit brought together some 1000 young people from across the country. She formally presented the summit's communiqué to President Chinchilla for her further consideration as Patron of the ITU Child Online Protection initiative and for transmission to the ITU Secretary-General for necessary action.

Dame Patience has also established a 15-member Technical Advisory Committee to work with her in the implementation of the Child Online Protection Agenda for the benefit of youth across the world. She reports that "We have been able to train a cross-section of Nigerian youths on Internet basics and safety online for the youths in collaboration with our technical partners, particularly Google Nigeria and New Horizon Ltd. We have put necessary machinery in place to make this a regular feature of my advocacy as the Child Online Protection Champion." As part of this advocacy, Dame Patience announced the creation of a new website to combat cyberthreats to children (www.childonline-protectionchampion.org), saying "I want to assure the youths who are seated here today and millions watching us on the Internet globally that we understand their common concern. We share in their pains and we will definitely take decisive actions to contain this global threat."



ITU/I. Wood

■ **World youth set course for sustainable future**

Beyond 2015 Global Youth Summit (branded as “BYND 2015”) was held in San José, Costa Rica, from 9 to 11 September 2013. An initiative of ITU and the Government of Costa Rica, the summit provided an opportunity for the youth of the world to express their views on how technology can drive socio-economic development, as the 2015 deadline to achieve the Millennium Development Goals draws near and global leaders prepare to review the process and set priorities for sustainable development in the years ahead.

BYND 2015 kicked off with an inter-generational dialogue on what the future holds in the post-2015 era. The centrepiece of the summit was a declaration reflecting the views of thousands of young people worldwide and setting priorities for the Future We Want (see pages 15–17). The declaration was delivered to the President of Costa Rica, Laura Chinchilla, who took the collective message of the world’s youth to the 68th session of the United Nations General Assembly held on 23 September to 8 October 2013.

..... **Crowdsourcing to set priorities**

More than 600 young participants from 68 countries met in San José, along with over 4000 others who joined the discussion virtually from 50 hubs in 30 countries in self-organized workshops.

Demonstrating that digital inclusion is of critical importance to building a knowledge-based information society, many of the young people participating in BYND 2015 from remote hubs were people who are not normally connected to the Internet and who do not own a computer.



President Laura Chinchilla



Dame Patience Goodluck Jonathan



Néstor Osorio

“Each and every one of you will tell us how the Internet and ICT can contribute to building a more prosperous world, a more just world and a world of greater freedom and responsibility. You have the initiative, you have the floor. Your recommendations will nourish our proposals. We are listening.”

President Laura Chinchilla of Costa Rica

The youth community generated over 1000 unique ideas on the specially designed online crowdsourcing platform. They voted around 15 000 times and provided more than 12 000 comments. Tens of thousands of people joined the conversation via social media, with a combined reach on Twitter alone of over 16 million. The online conversation took place in 74 languages. Education, health and access to information and communication technologies (ICT) were the topics that drew the most comments.

The aim of the young people was to influence the priorities of global leaders and decision-makers as they set the future agenda for sustainable development that will build on the Millennium Development Goals beyond 2015.

Policy maps and innovative apps

The Global Youth Summit discussed the role that governments, the private sector and international organizations need to play to support innovation by using ICT in key areas such as the environment, health care and education, as well as youth

employment and citizen participation. The summit agenda was defined by the youth themselves and comprised five sessions titled “Get Ahead”, “Be Healthy”, “Be Smart, Be Safe”, “Respect your Environment”, “Change your World” and a “Hackathon”.

BYND 2015 also brought together over 60 software developers and computer geeks from around the world in a 24-hour Hackathon to discuss the Millennium Development Goals and create apps — with a focus on health, education and the environment — that would help define and achieve sustainable development. Thematic and technology experts lent their weight to the effort to generate technology-based solutions aimed at addressing global challenges.

Listening to the young people discussing issues that would affect their future were Dame Patience Goodluck Jonathan, First Lady of Nigeria and Champion of ITU’s Child Online Protection initiative, Néstor Osorio, President of the United Nations Economic and Social Council (ECOSOC), and the United Nations Secretary-General’s Special Envoy for Youth, Ahmad Alhendawi.



Deborah Taylor Tate



Ahmad Alhendawi



Dr Hamadoun I. Touré

Mr Alhendawi said that he was committed to taking the message of youth to the United Nations, while urging young people to take on the responsibility of continuing to make themselves heard.

Dignitaries declaim youth credentials

Addressing young people at the opening ceremony at the National Centre for Art and Culture in San José, President Chinchilla said, "Regardless of language, ethnicity or geography, you come to this meeting to speak in a common language: the language of hope for a more prosperous, fair and free world, thanks to the incorporation of ICT as an instrument of change."

Stating that the Global Youth Summit will contribute fundamentally to redefining the Millennium Development Goals beyond 2015, President Chinchilla told the young participants: "Each and every one of you will tell us how the Internet and ICT can contribute to building a more prosperous world, a more just world and a world of greater freedom and responsibility. You

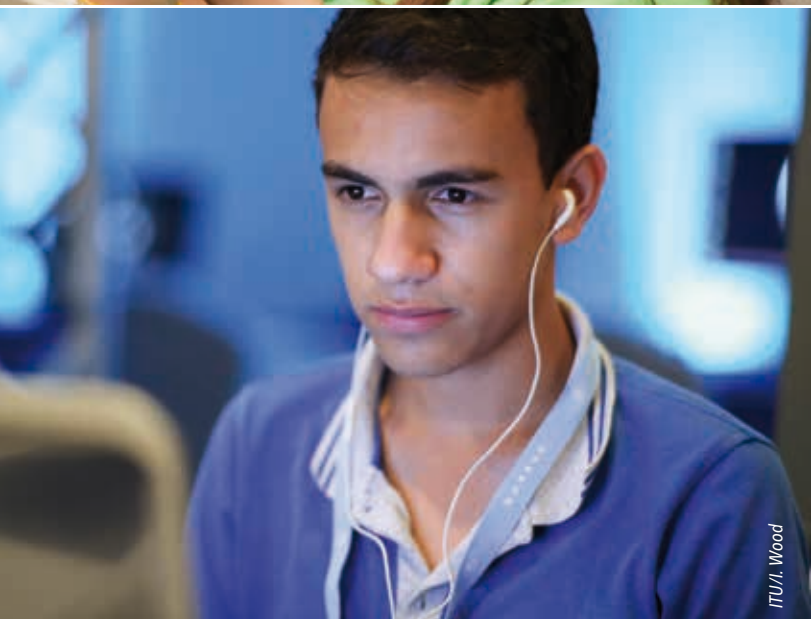
"Young people, perhaps more than anyone, understand how ICT can help make a difference in people's lives. In recent years we have seen how youth-driven social media platforms can help disseminate ideas and generate momentum for change."

*United Nations Secretary-General
Ban Ki-moon*

have the initiative, you have the floor. Your recommendations will nourish our proposals. We are listening."

Greeting participants, both onsite and online, United Nations Secretary-General Ban Ki-moon said, "Young people, perhaps more than anyone, understand how ICT can help make a difference in people's lives. In recent years we have seen how youth-driven social media platforms can help disseminate ideas and generate momentum for change." Mr Ban noted the growing role of information technology in connecting friends and families, teachers and students, doctors and patients, farmers, traders and markets.

As the first United Nations Secretary-General to use social media platforms such as Weibo, Facebook and Twitter, Mr Ban stated, "ICT will play a central role in our efforts to achieve the Millennium Development Goals and define and pursue a post-2015 sustainable development agenda. They give us immense power to accelerate progress on education, employment, poverty reduction, access to health care, and the empowerment of people with disabilities, women and youth." The



United Nations Secretary-General's message was delivered by his Special Envoy for Youth, Ahmad Alhendawi.

"In a connected world, everyone has a voice," ITU Secretary-General Dr Hamadoun I. Touré said, addressing young participants at the launch of BYND 2015, "so it is now up to you — the youth delegates here — to take the process forward and to make your voices heard." Referring to the catalysing power of digital technologies in shaping the global development agenda, Dr Touré noted that "The BYND 2015 Summit is a showcase of the power of technology to connect and empower people and to bring them together around a common cause; to collaborate and create solutions for their future."

Dame Patience Goodluck Jonathan has founded many philanthropic and empowerment projects for children and women. As BYND 2015 falls within the framework of ITU's Child Online Protection initiative, Dame Patience highlighted the importance of ensuring a safe and secure online experience for children around the world. Youth were also addressed by the ITU Special Envoy for Child Online Protection, Deborah Taylor Tate.

Also present at the ceremony was Sheikh Abdullah Bin Mohammed Bin Saud Al Thani, Chairman of the Board of Directors for Ooredoo (formerly Qtel Group). "Young people bring with them the promise of a better future," noted Sheikh Abdullah. "The ideas and aspirations of the young generation will help solve the problems of today, and build the solutions of tomorrow. We need to look at real-life social problems, and find technology solutions." (See interview on pages 19–22.)

Summit sponsors

Ooredoo, Claro and Intel were the main sponsors of the summit, along with some 40 business entities as supporting partners. Their contribution was invaluable in bringing hundreds of young participants to Costa Rica. In particular, the Telecentre.org Foundation mobilized its global network of over 100 000 telecentres worldwide to participate actively in BYND 2015.



Global Youth Summit

What the Youth Declaration says

Young people participating on site or online in the Beyond 2015 Global Youth Summit see themselves as a force for progress. They believe that participation in decision-making is vital to democracy, and call on Member States to provide open governance structures that engage directly with citizens.

Young people consider that health, civic engagement, online protection, environmental protection and economic success depend on the unfettered access to knowledge that information and communication technologies (ICT) offer.

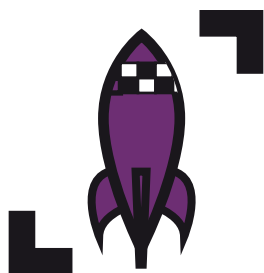
They therefore call for equitable and universal access to ICT, particularly for women and girls, and for other groups marginalized by the digital divide.

In their declaration, the young people set out — in their own words — their priorities for the future.

Youth in their own words

Get ahead

- 01 We call on governments, civil society and the private sector to work together to provide the training and resources young people need to innovate and create the businesses and industries of the future.
- 02 We seek access to education and knowledge sharing, regardless of where we are or whether we can pay.
- 03 We need new and innovative methods that lower barriers to youth employment and ensure decent, rewarding and fulfilling work.
- 04 We want to ensure that all students have access to ICT and the skills to use these technologies for their intellectual, economic and political empowerment.
- 05 We require education systems that equip students with the theoretical knowledge and a practical mix of marketable, innovative and relevant skills to compete in a global digital economy.



Change our world

- 01 We demand a voice. We ask that Member States pursue methods to make voting, openness and accountability more feasible online. We believe this will make governments more accessible, open and understandable. We further call for sustained, youth-driven mechanisms by which to make our voices heard at local, national and international levels.
- 02 We are deeply concerned by the barriers between leaders and young citizens. We call for innovative use of communication technologies as a means of engaging with those who represent us.
- 03 We seek online spaces where we can share and express the richness and diversity of our cultural heritages and religious practices, and break down barriers of intolerance and fear. We want to build communities on the basis of mutual respect and of preserving cultures.
- 04 We seek means to move from social commentary to social change, and to become more responsible and proactive global citizens, including through strong support for community-based volunteerism.



Respect our environment

- 01 We seek better access to and dissemination of honest and accurate information on environmental issues, as well as guidance on the steps that we can take to protect the environment.
- 02 We call on Member States to leverage innovative ICT-based tools for warning, information, preparedness and recovery in the face of natural disasters.
- 03 We urgently require broader and more efficient use of renewable and sustainable energy and food sources, as well as means and methods to further expand their use, notably in the agricultural sector.
- 04 We seek a world in which we do not have to choose between quality of life and quality of the environment. We therefore call for ethically sourced products and commodities, sustainable resource use, green businesses and proper disposal of e-waste.
- 05 We call for commitments from Member States, civil society and businesses to support, through incentives and rewards, those who choose to be environmentally responsible.



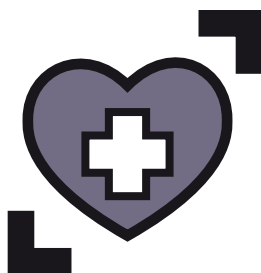
Be smart and safe

- 01 We recognize the positive and negative aspects of new technologies and call for information, education and support to make our online communities safe and secure. We urge educational institutions and digital content creators to aid us in this process.
- 02 We advocate that the same rights of freedom of speech, association and privacy granted in the real world be explicitly extended online.
- 03 We urge fellow young people to act and present themselves responsibly online, and we ask for educational and social structures to guide us in this respect.
- 04 We call for policies and appropriate and effective frameworks to protect the use of private data and intellectual property, and deter online criminal activity.



Be healthy

- 01 We seek innovative systems that connect people to information on health services, including mental health services, to improve accessibility, affordability and acceptability.
- 02 Geography should not be a barrier to health care. We seek technologies that connect us with health care remotely.
- 03 We seek tools to better inform us about healthy lifestyles and health concerns, and help us act on that information, especially in areas of sexual and reproductive health, and in dealing with disability. In particular, we need knowledge to reduce problems of stigma and fear associated with many diseases.
- 04 We call for the widespread availability of ICT channels through which to report and receive information on outbreaks of disease, disasters, epidemics or other events that endanger our health.
- 05 We call on Member States to empower young people to develop ICT tools that improve the experience of health care, while taking into account best practices and bioethics that are currently part of offline healthcare processes.

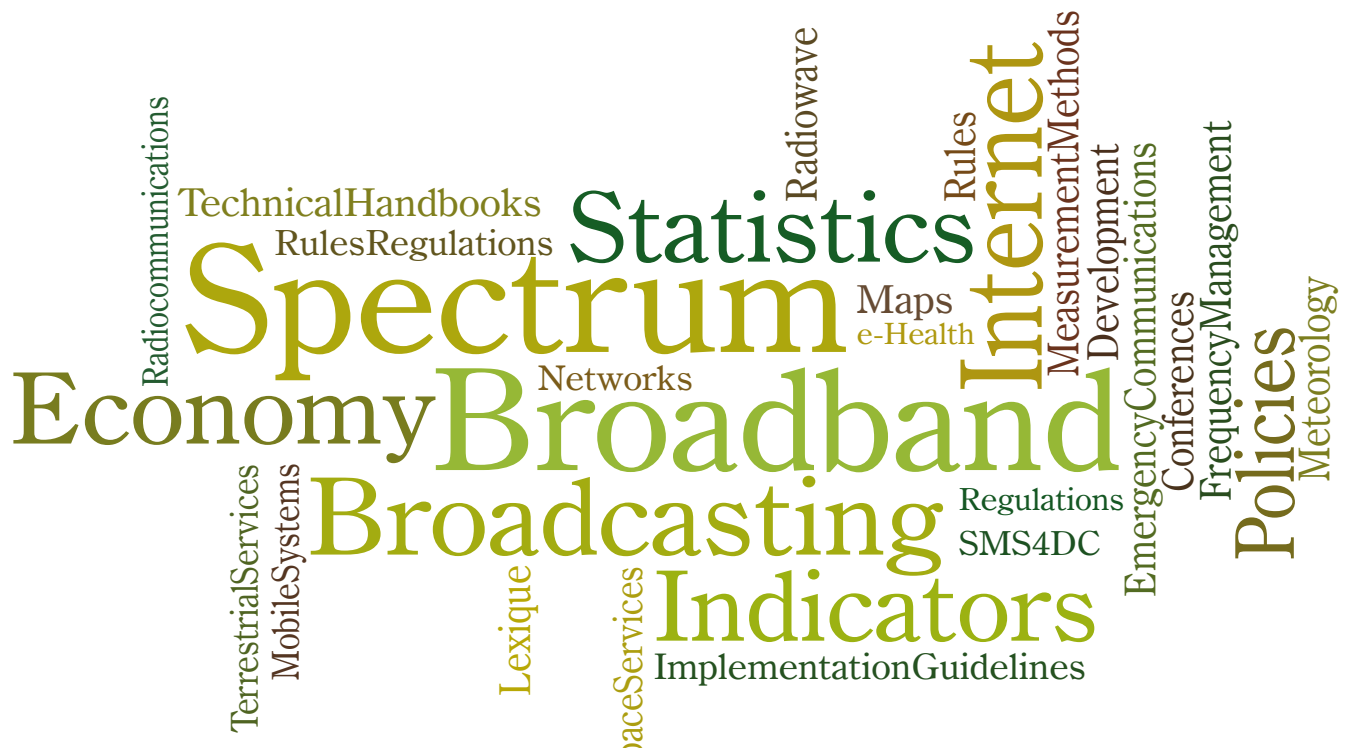


In conclusion

We call on the United Nations, the international community and all Member States to consider our words and put them into action. We call upon all young people around the world, in partnership with world leaders, to treat this declaration not as an outcome but as a starting place for continued dialogue. Young people should be included as full partners in the post-2015 process so that we can help to preserve the world we want for the youth of tomorrow.

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*“I often feel that —
as companies and as
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understanding their wants
and needs.”*

*His Excellency Sheikh Abdullah Bin
Mohammed Bin Saud Al Thani,
Chairman of the Board of Directors
of Ooredoo*

■ **Using technology to empower the next generation**

Interview with His Excellency Sheikh Abdullah Bin Mohammed Bin Saud Al Thani

Chairman of the Board of Directors of Ooredoo

Communication companies are evolving to respond to the needs and aspirations of the next generation. With this in mind, Ooredoo signed up as a founding partner of the Global Youth Summit, held in San José, Costa Rica, from 9 to 11 September 2013, in the belief that the ideas emerging from this event would contribute to human growth and development in the coming years. ITU News caught up with His Excellency Sheikh Abdullah Bin Mohammed Bin Saud Al Thani, Chairman of the Board of Directors of Ooredoo (formerly Qtel Group), to gather his views on young people and the energy they bring to the telecommunication and information and communication technology sector.

Question 1

An event like the Global Youth Summit gives young people a voice. What do you see as the specific contribution that youth can make to the development dialogue?

Sheikh Abdullah Al Thani Young people bring with them the promise of a better future. The ideas of the young generation will help solve the problems of today and build the solutions of tomorrow. I feel that — as companies and societies — we need to do a better job of listening to young people, and understanding their wants and needs. I often think of my own children, who are ambitious people and want to get ahead. But more than that, they want to do good. They want to ensure that their society becomes a better place because of their efforts. I hear this ambition whenever I speak to young people. Their energy and enthusiasm will change societies for the better, and they are already forcing communication companies to evolve.

Question 2

How does Ooredoo respond to the needs of the young people who make up such a large proportion of its strong customer base?

Sheikh Abdullah Al Thani Ooredoo's markets are in countries with predominately young populations. In Asia, North Africa and the Middle East, more than half of our customers are under 25 years of age. Although the traditions, beliefs and cultures in these regions are very different, there is a remarkable meeting of minds among our young customers. Young people view access to

mobile technology as a right on a par with housing and food.

Young people expect communication companies to provide them with the tools to support human growth and help them find purpose in their lives. We need to look at real-life social problems, and find technological solutions that are accessible, affordable and scalable, so that everyone can benefit. With this in mind, from Indonesia to Algeria, we are supporting a wide variety of life-enhancing products and services, including career counselling services, incubators and start-up services.

Question 3

Youth unemployment is a serious problem — how can technology help?

Sheikh Abdullah Al Thani We are using technology to create opportunities to help people get ahead. But a proactive approach is not enough. We need to listen and learn. Let me give you an example. In Tunisia, where our company Tunisiana operates, the youth unemployment rate is almost 30 per cent. Knowing that mobile technology can help young people acquire the right qualifications and find job opportunities, we partnered with the Tunisian government, civil society organizations, educators and businesses to launch the region's first career-related mobile service called "Najja7ni Employment". Najja7ni in Arabic means "make me successful". The service supports youth employability and financial awareness. It offers job matching, a mobile marketplace, and links with local training opportunities. To date, more than 800 000 customers are using the service.

Ooredoo's delegation of young people taking part in sport activities at the Global Youth Summit



Question 4

How does Ooredoo reach out beyond youth to society as a whole?

Sheikh Abdullah Al Thani Our vision is to enrich people's lives and stimulate human growth. We are committed to helping people realize their potential using ICT. And our promise of human growth is focused on four areas: empowering underserved communities; championing women; catalysing entrepreneurs and small businesses; and enabling young people to achieve their ambitions. Across our footprint, we are connecting underserved communities, for the first time, to cutting-edge 3G and 4G networks. We are rolling out life-enhancing services — from empowering women to helping youth with employment or financial inclusion. These services are complemented by on-the-ground corporate social responsibility programmes, including

medical aid with our mobile health clinics launched in partnership with the Leo Messi Foundation and youth football coaching programmes in collaboration with the French football club Paris-Saint-Germain.

Question 5

What does "Ooredoo" mean, and how does the company continue to maintain its relevance to youth?

Sheikh Abdullah Al Thani We chose our name Ooredoo, which means "I want" in Arabic, to reflect the aspirations of our largely youthful customers. Communication companies need to stay ahead. Society is changing fast, and we need to be bold in seeking new ways to use technology to empower the next generation.



His Excellency Sheikh Abdullah Bin Mohammed Bin Saud Al Thani

Sheikh Abdullah Bin Mohammed Bin Saud Al Thani is the Chairman of the Board of Directors of Ooredoo (formerly Qtel Group). In this capacity, he enjoys the status of State Minister in Qatar. Sheikh Abdullah has been instrumental in the restructuring and regional expansion of Ooredoo. Since the launch of the company's expansion strategy in 2005, Sheikh Abdullah has steered the growth of Ooredoo from operating in just one country to becoming a group with a presence spanning the region from North Africa and the Middle East to South East Asia. After Ooredoo's key acquisition of the Kuwait-based Wataniya group in 2007, he became Chairman of Wataniya, in which Ooredoo has a 92 per cent stake. Sheikh Abdullah also serves as President Commissioner of Indosat (Indonesia), in which Ooredoo has a 65 per cent stake.

Ooredoo has conducted substantial research on youth and technology across the Middle East and North Africa to gain an insight into the attitudes of young people across the region, and the use and impact of the Internet on their everyday lives. We will use the findings to ensure that the activities of the company remain relevant to its young customers.

Question 6

What is your message for the future?

Sheikh Abdullah Al Thani I challenge the communications sector to do a better job in supporting, learning from, and developing services for our young customers. To young people, I say keep striving, keep dreaming and keep demanding that we improve and deliver more for you. We all need to be bolder and more creative. It is young people's imagination that will empower us to improve.

■ Commissioners boost broadband momentum

On 21 September 2013, the Broadband Commission for Digital Development held its eighth meeting in New York, bringing together 45 commissioners and special guests including Geena Davis, ITU Special Envoy for women and girls in the field of information and communication technology, Ahmad Alhendawi, United Nations Secretary-General's Envoy on Youth, Omobola Johnson, Nigeria's Minister of Communication Technology, and the newly appointed Executive Director of UN Women, Phumzile Mlambo-Ngcuka.

Broadband and growth

"The case to invest in broadband is clear," said Paul Kagame, President of Rwanda and co-Chair of the Commission, opening the meeting. He cited the benefits in terms of economic growth and better lives for many, but warned of decreased efficiency when private operators build parallel infrastructure. Co-Chair Carlos Slim Helú praised the momentum and energy of the Commission. Irina Bokova, co-Vice Chair of the Commission and Director-General of United Nations Educational, Scientific and Cultural Organization (UNESCO), saw broadband as an accelerator to achieve progress towards the Millennium Development Goals, while Dr Hamadoun I. Touré, ITU Secretary-General and co-Vice Chair of the Commission, welcomed the growing impact of the Commission's advocacy.



AFP



President Paul Kagame



Carlos Slim Helú



Irina Bokova



Dr Hamadoun I. Touré

Mr Alhendawi said that, with 1.8 billion young people in the world today, one of the most important investments we can make for youth is securing access to broadband and information and communication technologies (ICT). Young people themselves advocated this in the Declaration emanating from the Global Youth Summit held from 9 to 11 September 2013 in Costa Rica.

United Nations Secretary-General Ban Ki-moon — in a statement delivered by Dr Touré — applauded the Commission's role in making broadband more available and affordable everywhere — particularly in the world's poorest nations, where it can help bridge gaps in areas such as health and education. He supported the Commission's advocacy of women's right to broadband, as a powerful tool for development.

New commissioners speak out

Cyberspace is the new frontier of the global economy, and an engine of growth, according to Suk-chaee Lee, President and CEO of the Republic of Korea's KT

Corporation. Developing countries can compete with industrial nations in the cybermarket. In that context, the Rwandan Government is engaged in a joint venture with KT Corporation for the wholesale supply of spectrum.

Although there are around 7 billion mobile subscriptions in the world, the number of unique mobile users is 3.3 billion, less than half the world's population, and accessibility remains a challenge in the poorest countries, noted Dr Anne Bouverot, Director General and Member of the Board of GSMA. Dr Bouverot proposed launching a Broadband Commission Task Force on how to encourage investment.

Reports and projects

There are 200 million fewer women currently online than men, according to "Doubling Digital Opportunities: Enhancing the Inclusion of Women & Girls in the Information Society," a report of the Working Group on Gender, presented to the meeting by Helen Clark, United Nations Development Programme (UNDP) Administrator. The report recommends integrating gender in national broadband

plans; improving gender-disaggregated data; improving affordability of ICT; and developing local content relevant to women (see article on pages 32–35).

Hans Vestberg, CEO of Ericsson, presented the report of the Task Force on Sustainable Development, titled "Transformational Solutions for 2015 and Beyond". This report shows how broadband policies affect broadband penetration, and how to leverage broadband. It describes best practices in broadband policy-making.

Jeffrey Sachs, Special Advisor to the United Nations Secretary-General on the Millennium Development Goals, stressed the advantages of connecting health workers via smartphones to expert systems and clinics. He called on the Commission to support the Campaign for One Million Community Health Workers in Sub-Saharan Africa by 2015.

Paul Mitchell, Microsoft's General Manager of Technology Policy, presented ICT Opportunity for a Disability-Inclusive Development Framework, the report of a global survey of 150 experts from 55 countries, published jointly by the Commission, Microsoft, the Global Initiative for Inclusive ICTs (G3ICT), the International Disability

*Connecting health workers via
smartphones can help save lives*

Alliance, UNESCO and Telecentre.org Foundation. Designers and programmers need to take accessibility into account at the beginning of the design stage, according to the report.

Voices of industry

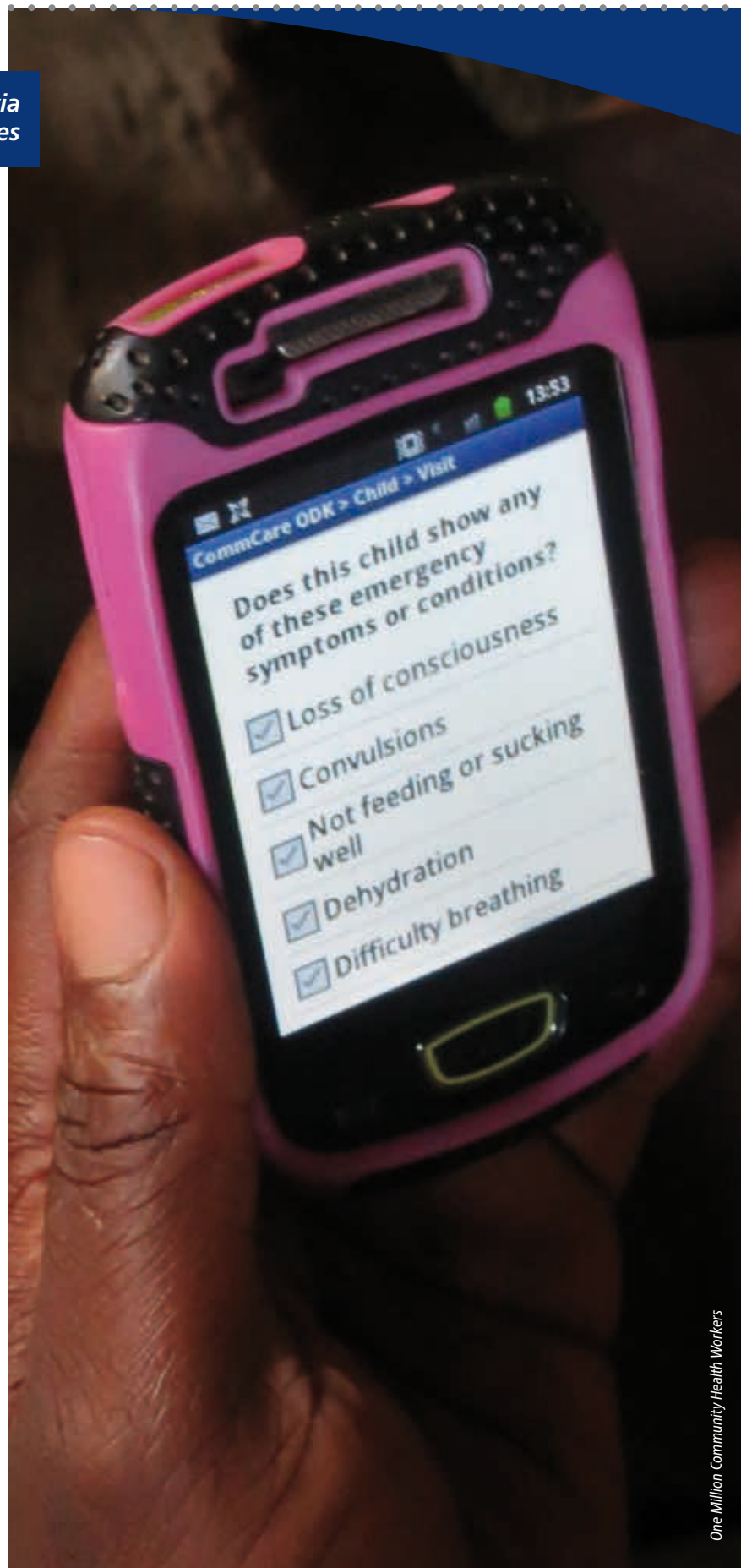
The industry partners of the Commission expressed their views in a session chaired by Sunil Bharti Mittal, the founder, Chairman and Group CEO of Bharti Enterprises, who stressed that the industry needs support with regard to spectrum. "Governments really need to understand that broadband can transform their economies," he said.

Robert Pepper, Vice President of Global Technology, Cisco Systems, called on governments to lower the punitive taxes on broadband, in order to accelerate adoption. Mo Ibrahim, founder and Chair of the Mo Ibrahim Foundation raised the problem of free-riding over-the-top (OTT) players, who offer services over broadband networks built by others. Denis O'Brien, Chairman of Digicel, said that governments should charge fair rates for spectrum to accelerate broadband deployment.

Regarding regulatory developments in Europe, Neelie Kroes, European Commissioner for the Digital Agenda, said that — with borders and roaming charges — the telecommunication sector is still not part of the single market.

Mr Vestberg called for greater involvement of ministries of education, health care and the environment in the award of licences. Dr Bouverot highlighted the trade-off between government revenue and investment in infrastructure. GSMA believes that renewal of mobile licences is best practice.

Sheikh Abdullah Bin Mohammed Bin Saud Al Thani, Chairman of the Board of Directors of Ooredoo (formerly Qtel Group), highlighted the importance of women as ICT consumers and the huge market opportunity they represent.



Satellite broadband

José Manuel Do Rosario Toscano, Director General and CEO of International Telecommunication Satellite Organization (ITSO), speaking on behalf of the satellite members of the Commission — International Mobile Satellite Organization (IMSO), ITSO and European Telecommunications Satellite Organization (EUTELSAT IGO) — said that many national broadband plans fail to take into account the multiple technologies available for broadband access. The satellite telecommunication industry is willing to invest in satellite broadband, provided there are stable and clear regulations, and a fair competitive market.

Affordable access

The 2006 Nobel Peace Prize Laureate Professor Muhammad Yunus categorized ICT as the platform for a new civilization, and called for it to be made as widely available as possible. Mr Slim Helú said that to achieve access to broadband for marginalized or poor people, operators must offer affordable prices or take different approaches, such as providing access through

public digital libraries. Professor Sachs agreed, noting that providing connectivity in a classroom or clinic can reach hundreds of people who are without private access at home.

Neither industry nor government is always right, said President Kagame. In such a complex market, people have to come together with open minds to achieve solutions. Minister Johnson noted that Nigeria needs USD 50 billion dollars over five years in order to achieve universal coverage. Gabrielle Gauthier, Senior Vice President of Public Affairs for Alcatel-Lucent, commented that many private funds do not consider ICT backhaul as eligible for infrastructure investment.

John Davies, Vice President of Intel Corporation's Sales and Marketing Group and General Manager of the Intel World Ahead Program, described how Intel is working with governments, development organizations, community groups, and other technology leaders to connect the next billion people. Youssou N'Dour, Senegal's Minister of Tourism and Leisure, appealed to the Commission to remain focused on people, rather than technologies.

Broadband status update

Participants discussed how to offer universal broadband service. Among the challenges to more widespread deployment, they identified affordability, digital confidence, availability of infrastructure and fragmentation of spectrum. They agreed that old rules should not stand in the way of new business models, concluding that the industry needs to develop new models and sources of financing.

Dr Touré presented "The State of Broadband 2013: Universalizing Broadband" report to the Commission. The report tracks progress made in regard to all the Commission's advocacy targets. Some countries are slipping slightly off track, and further efforts will be needed to meet the targets for household and individual Internet access by 2015. On behalf of Ms Bokova, Janis Karklins, UNESCO's Assistant Director General of Communication and Information, presented UNESCO's work. Commissioners welcomed all reports presented during the meeting. President Kagame said that it is encouraging to see how the Commission's tireless efforts in promoting broadband are bearing fruit.



Getty Images

■ **State of broadband**

Mobile broadband – the game changer?

From death of distance to death of location

Our future is undoubtedly based on broadband, according to *The State of Broadband 2013: Universalizing Broadband*. Although some end users may believe that broadband is about downloading bigger files more rapidly, it actually represents much more.

The report outlines a variety of ways in which broadband is improving the lives of people around the world, in m-health, education and m-learning, m-payments,

training, innovation and the acquisition of new skills. It highlights the strong correlation between local infrastructure and local content — multilingual content plays a vital role in driving demand for broadband services. Governments, health managers, businesses, consumers and teachers are all coming to grips with the positive and transformational impact of broadband on economic and social welfare.

Mobile broadband is the fastest growing technology in human history. Five countries now have mobile broadband

penetration in excess of 100 connections per capita (Singapore, Japan, Finland, the Republic of Korea and Sweden). At the beginning of 2013, some 32 economies had a mobile-broadband subscription penetration in excess of one subscription for every two inhabitants, compared with just 13 countries at the start of 2012.

Released on 21 September 2013 in New York at the eighth meeting of the Broadband Commission for Digital Development, the report reveals that mobile broadband subscriptions, which allow

users to access the web via smartphones, tablets and WiFi-connected laptops, are growing at a rate of 30 per cent per year.

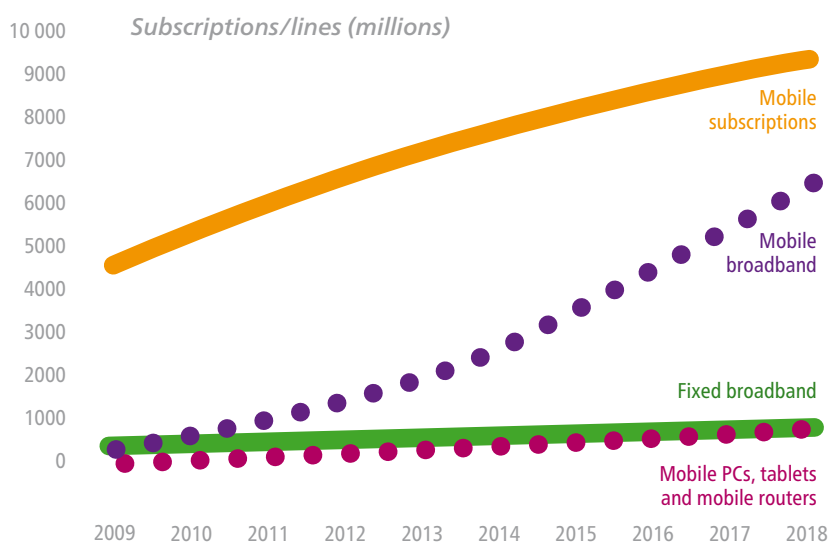
Worldwide, Internet penetration is estimated to reach 38.8 per cent by the end of 2013 — but more than two-thirds of people in developing countries will still be unconnected, as will over 90 per cent of people in the world's 49 least-developed countries.

We are embarked on a journey, where information and communication technologies (ICT) including the Internet are integrated into the fabric of the environment surrounding us — invisible, embedded,

exchanging data and information, constantly and automatically — although progress is uneven across countries, across regions, and even across user groups or generations. The marriage of mobile with modern-day Internet via mobile broadband is opening up new vistas of opportunity. Mobile broadband may well bridge the gap between the connected and the unconnected (see chart).

ITU predicts that there will be 2.1 billion mobile broadband subscriptions by the end of 2013. The implications are far-reaching. Mobile phone users will no longer be physically constrained by location. Instead of having to physically go to a bank or post office or clinic, they will use their mobile phones to act as a gateway to services or the workplace. The Internet and mobile were widely credited with the death of distance. In future, mobile broadband may well be credited with the death of location, as our societies become ever more mobile with the use of mobile devices.

Mobile broadband bridges the gap: fixed broadband and mobile subscriptions, 2009–2018



Source: Ericsson Mobility Report, June 2013.

Tracking targets

The report provides the latest country-by-country data measuring broadband access worldwide against the four key targets set by the 60 members of the Broadband Commission in 2011. These are:

1. **Making broadband policy universal.** By 2015, all countries should have a national broadband plan or strategy or include broadband in their universal access/service definitions.
2. **Making broadband affordable.** By 2015, entry-level broadband services should be made affordable in developing countries through adequate regulation and market forces (for example, such services should cost less than 5 per cent of average monthly income).
3. **Connecting homes to broadband.** By 2015, 40 per cent of households

in developing countries should have Internet access.

4. **Getting people online.** By 2015, Internet user penetration should reach 60 per cent worldwide, 50 per cent in developing countries and 15 per cent in least-developed countries.

There is much progress, particularly in the first target of making national broadband policy universal: Some 134 countries had a broadband plan in place by mid-2013, which is a first step to broadening access.

The report shows mixed progress, good in some countries and poor in others, with regard to making broadband services affordable. Broadband is becoming more affordable around the world — but it still remains out of reach in many parts of the developing world. In 2012, there were only 48 developing countries where broadband cost less than 5 per cent of average income — this number has remained static since 2011.

The Republic of Korea continues to have the world's highest household broadband penetration at over 97 per cent. Worldwide, countries are slipping slightly off-track to achieve the Commission's advocacy target for household penetration.

Switzerland leads the world in fixed broadband subscriptions per capita, at over 40 per cent. By comparison, the United States ranks 24th in terms of household broadband penetration, and 20th in the world for fixed broadband subscriptions

per capita, just behind Finland and ahead of Japan.

In terms of Internet use, there are now more than 70 countries where over 50 per cent of the population is online. The top ten countries for Internet use are all located in Europe, with the exception of New Zealand (8th) and Qatar (10th). Further efforts in improving access are needed to achieve the targets for individual Internet user penetration.

"The new analysis in this year's report shows progress in broadband availability, but we must not lose sight of those who are being left behind", says ITU Secretary-General Dr Hamadoun I. Touré, who serves as co-Vice Chair of the Commission with Irina Bokova, Director-General of United Nations Educational, Scientific and Cultural Organization (UNESCO). "Internet — and particularly broadband Internet — has become a key tool for social and economic development, and needs to be prioritized, even in the world's poorest nations. Technology combined with relevant content and services can help us bridge urgent development gaps in areas like health, education, environmental management and gender empowerment," explains Dr Touré.

"The global roll-out of broadband carries vast potential to enhance learning opportunities, to facilitate the exchange of information, and to increase access to content that is linguistically and culturally diverse," says Ms Bokova, adding that "it can widen access to learning, enhance its quality and empower men and women, girls

and boys, with new skills and opportunities. But this does not happen by itself — it requires leadership, planning and action."

For the first time, the *State of Broadband* report also tracks a new target for gender equality in broadband access by the year 2020. This target was set by the Commission at its March 2013 meeting in Mexico City.

Commission co-Chair Carlos Slim Helú says that "the Millennium Development Goals should be the basis for a strong partnership to direct actions at the national and international levels, and they should be a shared responsibility. It is certain that broadband can make a tremendous contribution towards their attainment."

Co-Chair Paul Kagame expresses the view that "beyond 2015, the way forward should be to unleash the smart use of broadband to enhance delivery of services in education, health care, banking and other sectors. Broadband should also empower young people in the developing world to innovate and be more competitive globally."

The promise of mobile

Mobile broadband subscriptions have increased nearly tenfold over the past six years, from 268 million in 2007 to 2.1 billion in 2013. Developing countries account for over half or 1.16 billion of these subscriptions. By the end of 2013, the number of broadband subscriptions in the developing world will exceed the number of

broadband subscriptions in the developed world for the first time, in both fixed and mobile — with much of the fresh growth coming from emerging markets. According to Budde Communications, Africa is the region with the largest remaining growth potential in the world, with a market in telecommunication services that is estimated to grow by 1.5 billion people by 2050.

Strong global growth in mobile broadband is also evident in national markets. In China, 75 per cent of all Internet users now access the Internet via a mobile device, exceeding the proportion of users accessing the Internet via a fixed connection (at 71 per cent) for the first time in 2012.

Looking to the future, mobile broadband is projected to reach 7 billion subscriptions in 2018. Long-Term Evolution (LTE) Advanced alone may account for 500 million subscriptions by 2018.

Even if the future is mobile, fixed broadband will still play a vital role. For operators, fixed networks and backhaul networks are helping to accommodate growth in mobile traffic, with a third of all mobile data traffic offloaded to fixed networks in 2012, according to Cisco. For consumers, fixed broadband subscriptions worldwide have been growing more slowly, but steadily, and will reach 696 million by the end of 2013, corresponding to a global penetration rate of 9.8 per cent.

These global statistics do not do justice to the far-reaching change brought about by the smartphone. Combining the

functions of navigation, address book, wallet, camera, personal organizer, notepad, e-mail and social conversation, broadband-enabled devices are already indispensable to modern lifestyles, especially in industrialized countries.

Morgan Stanley estimates that the number of unique smartphone users is around 1.5 billion in 2013, while Ericsson expects smartphone subscriptions to exceed 4 billion by 2018. The industry is now shipping 700 million smartphones a year, with around 40 per cent of all handsets shipped in 2012 being smartphones.

Mobile broadband now promises to be a significant game-changer in countries around the world, driving far-reaching social and economic transformations through new services and changes in consumer habits in developing and developed countries alike.

An excellent showcase of this potential is India's education system — one of the largest in the world, with more than a million schools and 18 000 higher education institutes. "With quality a growing concern, Internet connectivity offers a platform for new service delivery. The Airtel Classroom is a virtual learning platform that can be accessed by customers via mobile", explains Sunil Bharti Mittal, Founder, Chairman and Group CEO of Bharti Enterprises and Chairman of Bharti Airtel.

India is one of the first countries to launch long-term evolution (LTE) networks, which will accelerate service delivery in

sectors ranging from health to public infrastructure. Mr Mittal says "I believe the mobile Internet revolution presents new vistas of economic opportunity and a pragmatic approach to addressing fundamental social issues of improving equity and promoting inclusive growth."

Inventing connectivity — improving lives

"Nowhere is the impact of mobile broadband more important than in the developing world", says Dr Paul Jacobs, Chairman of the Board and CEO of Qualcomm. For many people, their first and only access to the Internet will be via a mobile device. Such connectivity, combined with low-cost but advanced devices, provides unprecedented opportunities to empower individuals across society. With third-generation (3G) mobile devices, doctors are remotely monitoring cardiac patients in rural villages; farmers are accessing weather information and sales prices to increase their income and improve their standard of living; women entrepreneurs are lifting themselves out of poverty by harnessing the economic benefits of wireless to start businesses and access banking services; and children everywhere can access educational content in and out of the classroom, 24 hours a day.



Getty Images

Universalization

There are different mechanisms for achieving universal broadband, even as the commercial costs of its provision rise significantly, notably in rural and remote areas considered economically unviable. These mechanisms include universal service regulations, universal service funds, national targets, new and improved technologies, such as latest-generation satellites, as well as programmes and incentives for operators and stakeholders in the broadband value chain.

There is no single recipe that is likely to work for all countries — instead, countries need to relate the options they choose for universalizing broadband to their own market needs.



■ **Gender divide in broadband access**

200 million fewer women than men online

Unlocking the potential of women as an emerging market

A new report reveals a significant and pervasive gender divide in broadband access between men and women. Worldwide, there are an estimated 200 million fewer women than men online, and this gap could grow to 350 million within the next three years, if remedial action is not taken, according to *Doubling Digital Opportunities: Enhancing the Inclusion of Women & Girls in the Information Society*, a report by the

Broadband Commission Working Group on Gender.

Around the world, women are coming online later and more slowly than men. Of the world's 2.8 billion Internet users, 1.3 billion are women, compared with 1.5 billion men. While the gap between male and female users is relatively small in countries of the Organisation for Economic Co-operation and Development (OECD), it is much wider in the developing world.

Worldwide, women are on average 21 per cent less likely to own a mobile

phone — representing a mobile gender gap of 300 million women, equating to USD 13 billion in potential missed revenue for the mobile industry.

Based on extensive research from United Nations agencies, Broadband Commission members and partners from industry, government and civil society, the report provides the first comprehensive global snapshot of broadband access by gender. The report was launched on 21 September 2013 by Helen Clark, Administrator of the United Nations

Development Programme, who has led the Working Group on Broadband and Gender since its establishment in 2012.

"This new report provides an overview of opportunities for advancing women's empowerment, gender equality and inclusion in an era of rapid technological transformation," says Ms Clark. "It calls for social and technological inclusion and citizens' participation, explaining the societal and economic benefits of providing access to broadband and ICT to women, small entrepreneurs and the most vulnerable populations. Most importantly, this report shows ways in which we can further advance the sustainable development agenda by promoting the use of new technologies in support of gender equality and women's empowerment."

Research in the report indicates that in developing countries, every 10 per cent increase in access to broadband translates to a 1.38 per cent growth in gross domestic product (GDP). So bringing an additional 600 million women and girls online could boost global GDP by as much as USD 18 billion.

The world may be watching the economic potential of the BRIC economies (Brazil, the Russian Federation, India and China). But the most exciting new emerging market in the world could be women. Analysts believe that over the next decade, women's potential as producers, entrepreneurs, employees and consumers could rival the impact of the huge populations of China or India.

"Promoting women's access to ICT — and particularly broadband — should be central to the post-2015 global development agenda," says Dr Hamadoun I. Touré, ITU Secretary-General and co-Vice Chair of the Broadband Commission.

Ann Mei Chang, who serves as the Senior Advisor for Women and Technology in the Secretary's Office of Global Women's Issues at the United States State Department, agrees, saying that "access to the Internet can enable women to increase their productivity, access new markets, improve their education, find better jobs, and contribute to the innovation economy."

Learning ICT skills for employment

Gender imbalances in choosing to study science, technology, engineering and mathematics at school and university leads to gender differences in career choices and ultimately pay differentials in the workforce. The report emphasizes the importance of encouraging more girls to pursue ICT careers. By 2015, it is estimated that 90 per cent of formal employment across all sectors will require ICT skills.

The hottest jobs of the 21st century are hybrid roles, according to Monique Morrow, CTO consulting engineer at Cisco Systems. These jobs combine ICT with business in every imaginable field, including careers in bioengineering, digital media, data informatics, development of applications, telemedicine and remote

learning systems. "Let us ensure women are equipped with the necessary skills and training to go further and thrive in the careers of the future," she says.

Education and income gaps affect women's access to ICT. Women's overall lower incomes hinder the purchase of equipment and payment for access; their globally higher illiteracy rate poses another barrier to access. Across all developing countries, only 75 per cent of women are literate, compared to 86 per cent of men, with far greater gaps in some countries.

Many institutions are focusing on improving women's ICT skills for employment to improve women's job opportunities, raise their incomes and improve their quality of life. For example, ITU's "Girls in ICT Day" — celebrated every year on the fourth Thursday in April — aims to raise awareness among school-age girls of the exciting prospects a career in ICT can offer. This year, over 130 countries held Girls in ICT Day events, supported by partners including Alcatel-Lucent, Cisco, ictQATAR, Microsoft and the European Commission. To help older women get online and take advantage of new technologies, ITU has partnered with Telecentre.org, which is on track to train one million women in ICT skills by the end of 2013. So far, over 800 000 women in 85 countries have received digital literacy training, thanks to this partnership.

Renee Wittemyer, Director of Social Impact at Intel Corporation, says that it is important to "make training relevant.

With Intel Learn, women and girls are able to apply technology to address needs or problems in their own lives and communities, which keeps them interested and enhances learning.”

The GSMA mWomen Programme aims to facilitate access to mobile products and services that could change the lives of millions of women in low- and middle-income markets. The “Women and Mobile: A Global Opportunity” report, by GSMA and the Cherie Blair Foundation for Women, identifies barriers to women’s mobile access that include cost, culture, technical illiteracy and perceptions of value.

“We are seeing exciting examples of how operators are fostering women’s increased access to mobile by gaining deeper understanding of the needs of women as consumers and designing products and services to suit them,” says Dr Anne Bouverot, Director General of GSMA, citing the example of Iraqi operator Asiacell, which launched a line of products designed to match the needs of Iraqi women for mobile services, and which saw the proportion of women in its subscriber base jump from 20 per cent to 40 per cent. Dr Bouverot also gave the example of Indonesia’s Indosat, which created a mobile product (the Hebat Keluarga service for household management and family contacts) specifically targeting the wants and needs of women home-makers. After the launch of this product, nearly two million more women became Indosat customers.

Stereotyping in entertainment media

The origin, evolution and role of content in shaping people’s aspirations and outlooks is the subject of a growing body of research. The gender report notes that a recent study by the Geena Davis Institute on Gender in Media, its programming arm See Jane, and the Annenberg School for Communication at the University of Southern California found stark inequalities in the representation and gender of characters on-screen. Currently, only one in four characters in family films are female. In crowd scenes, only 17 per cent of the crowd are female, while only 11 per cent of movies have a woman as the lead.

Setting up the Broadband Commission Working Group on Gender was proposed in 2012 by Geena Davis, actor, advocate and ITU Special Envoy for women and girls in the field of information and communication technology. As Ms Davis observed, “despite making up half the population, the message sent to children is that women and girls do not take up half of the space in the world and women and girls have far less value to society than men and boys”. Gender stereotyping remains entrenched in today’s entertainment media. This is a cause for concern, because the influences children are exposed to during childhood may shape their notions of identity and hopes for the future.

Crunching the numbers

In attempting to measure the differences in ICT use between males and females, the obvious approach is to use absolute numbers: the difference between the total number of male users and the total number of female users. But absolute numbers do not take into account the overall sizes of the total populations of men and women — in other words, the populations of potential users. In fact, men outnumber women globally by 62.5 million, but women outnumber men in the developed world.

A more nuanced measure is to compare the proportion of all men who use ICT with the proportion of all women who use ICT. This gives an index based on users relative to potential users, and is a way of comparing like with like.

A third measure is to take the difference between the absolute values relative to a single reference population (usually male ICT users). Again, this does not take into account total populations.

Probably the most accurate measure is to take the difference between female and male ICT penetration rates and divide it by the male ICT penetration rate. This takes into account the difference between the total male and female populations and the different groups analysed.



Other types of measurements — which include Gini coefficients, Lorenz curves and measures of skew — indicate how far the male and female populations of ICT users depart from the line of equality.

The problem is that different methods produce different estimates, and the numbers are not comparable.

Get the facts

The answer is to make sure that data are collected systematically in a comparable way. Sex-disaggregated statistics on gender and ICT should be mainstreamed in national data collecting. Data collection should be based on the internationally agreed methods — and core ICT indicators — recommended by the Partnership on Measuring ICT for Development, as endorsed by the United Nations Statistical Commission.

Gender and ICT statistics must be seen in the context of gender equality. Within the broad topic of gender and ICT, further sex-disaggregated data and indicators are needed on access, usage, skills, content, employment and education, as well as on the extent to which gender is considered in telecommunication policy, whether females are equitably represented in ICT decision-making, and as a way of assessing the economic impact of ICT access on women's empowerment. Governments should incorporate gender analysis and gender-awareness into policy design.

ITU Kaleidoscope 2014

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■ **Disability and development**

One billion people with disabilities — How ICT can make their lives better

More than one billion people today live with some form of disability — and 80 per cent of them are in developing countries. People with disabilities are among the most vulnerable groups of the global population. However, addressing disability was not included in the United Nations Millennium Development Goals. This has perpetuated a situation in which environmental barriers are still preventing people with disabilities from accessing,

participating and being fully included in social, economic and political activities.

A new report, *The ICT Opportunity for a Disability-Inclusive Development Framework*, released on 24 September 2013, shows how information and communication technologies (ICT) can enable and accelerate access to resources such as education and health care for people with disabilities. It lists the challenges, and outlines the actions that each group of stakeholders can take towards the achievement

of a disability-inclusive development agenda. It also recommends a set of indicators to help measure progress.

The report was written in support of the High-Level Meeting on Disability and Development of the 68th session of the United Nations General Assembly, held in New York from 23 September to 8 October 2013. This session discussed, among other things, the inclusion and integration of the rights, well-being and perspective of people with disabilities in post-2015

development efforts at the national, regional and international levels.

The United Nations Convention on the Rights of Persons with Disabilities, which entered into force in 2008, is a commitment of the international community towards the attainment of this goal of inclusion in all aspects of development. As Ambassador Luis Gallegos, Chairperson of the Global Initiative for Inclusive ICTs (G3ict), says in his foreword to the report, "In effect, the Convention is not only a Human Rights treaty, the first of this millennium, but also a blueprint for sound development policies and programmes to ensure the full participation of persons with disabilities in all aspects of society. The dispositions of the Convention must be implemented and the post-2015 development agenda should reflect its guidelines on accessibility to ensure the social and economic inclusion of this important group of the global population."

Available, affordable and accessible

Launching the report, ITU Secretary-General, Dr Hamadoun I. Touré, said "The use of information and communication technologies should be at the heart of any strategy to promote the social and economic inclusion of persons with disabilities. We have the tools in our hands; the remaining challenge is to expand access to these technologies to all and to make ICT accessible and affordable for persons with disabilities."

Web services have the greatest impact. They constitute an access technology — for example through social networking, teleworking, online educational classes and telemedicine — that can bring people with disabilities into all areas of development. "Access to a computer is one of the greatest equalizers for people with disabilities. The ability to operate a computer and even program an application allows an individual with a disability to find a passion, find a career and become financially independent", according to John Schimmel, Co-founder of DIYAbility.

Mobile devices and services are the second-most valued ICT support for people with disabilities. The use of mobile phones is instrumental, in particular, in enabling independent living, by offering short message service (SMS), captioned telephone, mobile banking services, and access to emergency services. Television is the third-ranked ICT, specifically for its use as a tool to access information, for example through news broadcasts and education programmes.

Lucía Ramón Torres is a Mexican lawyer and she is blind. She explains that "without access to ICT, which include assistive technologies or specially developed ICT, people with disabilities are disenfranchised and are denied equal access to education, culture, and everyday services. This ends up restricting their job opportunities and their possibility for independent living. As a blind person myself, using ICT is what enabled me to finish my school and university education, and complete my

academic training, master's degree and internships. Access to ICT has been vital for me to achieve full participation in all aspects of life and society, and will continue to be so for the rest of my life". Ms Torres participates in cultural life through the Internet and digital libraries, and enjoys ICT-enabled access to e-government services and e-banking. She calls ICT "the key that opens the door to full participation for people with disabilities".

Cost is still one of the main barriers that prevents many people with disabilities from being able to fully access health care services, benefit from education at all levels, be competitive in the labour market and live independently. More specifically, there is a lack of access to accessibility technologies, exacerbated by the lack of policies that foster their widespread availability, and — where there are such policies — failure to implement them effectively. Malcolm Johnson, Director of ITU's Telecommunication Standardization Bureau, stresses that "the divide that separates persons with disabilities from other persons, in having equal and easy access to ICT, must be bridged". He explains that "ITU standards are designed from inception to help achieve that goal — universal access to communications for everyone, with a focus on availability, and affordability. Globally standardized solutions increase market size, usability and interoperability, and reduce complexity and cost."



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Stakeholder solidarity

The main stakeholders involved in each sector will need to collaborate to overcome existing barriers. There are actions that each group of stakeholders can take. Relevant indicators will be required to monitor progress.

Governments, for example, can play a key role in stimulating the introduction of ICT-enabled solutions adapted to the needs of people with disabilities and in promoting the affordability of assistive technologies in social, educational, economic and other domains. One priority action is to include accessibility requirements in procurement policies. Governments can also foster a greater awareness of the United Nations Convention on the Rights of Persons with Disabilities as a comprehensive and integral instrument that

highlights the importance of ICT and accessibility for the enjoyment of human rights and fundamental freedoms. This entails updating disability legislation to include ICT in the legal definition of accessibility.

Private-sector entities can contribute by increasing their research and development efforts, incorporating universal design principles at the earliest stage possible. Recruiting people with disabilities to work on the development of accessible ICT products is another way forward. The shortage of IT professionals with ICT accessibility skills should be addressed as a matter of priority. This could be done through in-house training, industry gatherings and publications. The private sector can further remove attitudinal barriers towards hiring people with disabilities by creating accessible and inclusive workplaces.

Civil society organizations can play a key role in raising policy-makers' awareness of the need to break down accessibility barriers. In particular, they can participate more actively in the work conducted by international standards organizations. Advocating the mainstreaming of the universal design principle is crucial for ensuring that international development efforts are disability-inclusive.

The United Nations system and other international organizations can implement operational activities to meet disability-inclusive development goals. This should be complemented by the monitoring and evaluation of development efforts at the global, regional and national levels. Also necessary are performance reviews to assess whether development policies, programmes and projects are effective and

results-driven. It is imperative to ensure that this analysis is quantitative and supported by consistent data, and is designed with the participation of people with disabilities in order to make sure that the correct factors are measured. The United Nations must continue its awareness-raising activities and mobilization campaigns in order to prompt governments to take action.

International standards organizations can play a special role in enabling a disability-inclusive development agenda by providing a neutral platform from which to develop or harmonize international standards for accessible ICT. To achieve this, standards-development bodies must facilitate the participation of relevant experts and delegates with disabilities. Furthermore, these organizations can promote research and development focused on specific ICT-enabled solutions for people with disabilities.

A collaborative report

The report was prepared with input from the Broadband Commission for Digital Development, the Global Initiative for Inclusive ICTs (G3ICT), the International Disability Alliance, ITU, Microsoft, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Telecentre.org Foundation. It reflects feedback from a global consultation on ICT, disability and development, carried out from 20 May to 17 June 2013. Inputs were gathered from more than 150 experts, some representing organizations and others contributing in an individual capacity. The inputs came from some 55 countries and represented multiple stakeholders, including governments, academic institutions, organizations for persons with disabilities, civil society organizations, the private sector, and regional and international organizations.

Ambassador Gallegos stresses that “We cannot miss the opportunity to use all available tools — including ICT — to build an inclusive society for persons with disabilities. By working together across all sectors of society — public, private and civil society — we can finally ensure the inclusion of one billion persons with disabilities in the digital age”.



■ Preparing for WSIS+10 High-Level Event

Open Consultation Process

*Professor Vladimir Minkin (Russian Federation)
Chairman of the WSIS+10 Multistakeholder Preparatory Platform
meetings and Chairman of the ITU Council Working Group on WSIS*



Professor Vladimir Minkin

First meeting of the WSIS+10 Multistakeholder Preparatory Platform

More than 140 people from 70 countries participated in the first physical meeting of the WSIS+10 Multistakeholder Preparatory Platform, held on 7–8 October 2013 at ITU headquarters. The time is drawing near for an overall review of the implementation of the outcomes of the World Summit on the Information Society (WSIS) and, based on that, adopt a new Plan of Action for further development of the information society towards an inclusive knowledge society. The summit was organized in two phases. At the first phase in Geneva in 2003, world leaders issued a Declaration of Principles and a Plan of Action (with 11 action lines). These

were complemented in 2005 by the Tunis Commitment and the Tunis Agenda for the Information Society.

At the ITU Council session in 2013, it was agreed that the WSIS+10 High-Level Event will take place in 2014 to review the progress made in implementing the WSIS outcomes under the mandates of participating agencies, and to take stock of achievements over the past decade, based on reports from all WSIS stakeholders — that is, governments, the private sector, civil society, international organizations and relevant regional organizations. It is anticipated that two texts will be endorsed at the high-level event: a WSIS+10 Statement on Implementation of WSIS Outcomes; and a WSIS+10 Vision for WSIS Beyond 2015. The Open Consultation process to prepare for the WSIS+10 High-Level Event

comprises six phases. So this first physical meeting of the WSIS+10 Multistakeholder Preparatory Platform was the second phase. Nermine El Saadany (Egypt); Majed M. Almazyed (Saudi Arabia); and Frédéric Riehl (Switzerland) are Vice-Chairmen of the WSIS+10 Multistakeholder Preparatory Platform meetings.

Working on the basis of “zero” drafts

Drawing attention to the open and inclusive nature of the process, ITU Deputy Secretary-General Houlin Zhao said “It is clear that the WSIS process has already achieved a great deal, with some of the main achievements being its key multi-stakeholder character and increased partnerships”.

Mr Zhao underlined that the WSIS+10 High-Level Event will review the WSIS outcomes — from both 2003 and 2005 — related to the WSIS action lines with a view to developing proposals on a new vision beyond 2015, potentially including new targets.

The aim of the first meeting of the WSIS+10 Multistakeholder Preparatory Platform was to develop consensus on the proposed draft texts for the WSIS+10 Statement on Implementation of the WSIS Outcomes and the WSIS+10 Vision for WSIS Beyond 2015, recognizing them as zero drafts — the starting point for its discussions.

The zero drafts represented a huge collaborative effort from the United Nations focal points, as well as the Chairman and Vice-Chairmen of the preparatory meeting and had been prepared on the basis of several inputs, including a “Statement by the Multistakeholder Event on Towards Knowledge Societies for Peace and Sustainable Development”, “WSIS+10 Visioning Challenge”, “WSIS Forum 2013 Outcome Document”, “Emerging Trends 2012/2013” and almost 50 detailed submissions received from WSIS stakeholders during the first phase of the Open Consultation process, as well as background documents and the outcomes of regional meetings (hosted by Cambodia, Ghana, Moldova, Serbia, Tunisia and Uruguay, among others).

All the action line facilitators including, ITU, UNESCO, UNCTAD, UNDP,



“It is clear that the WSIS process has already achieved a great deal, with some of the main achievements being its key multistakeholder character and increased partnerships.”

Houlin Zhao,
ITU Deputy Secretary-General

UNDESA, WMO, UNEP, WIPO, WHO, UPU, ITC, ILO, FAO, UN Women and UN Regional Commissions also contributed towards the development of these zero drafts, within their respective mandates.

The zero drafts focus on the WSIS action lines and measurement of their implementation. Based on the existing framework of action lines, and without making the existing framework of action lines obsolete, the drafts develop a vision, identifying emerging trends, challenges and priorities for the new decade.

The meeting agreed on a set of principles for drafting the documents, stating that the Geneva Declaration and Geneva Plan of Action will remain valid until further decisions by the United Nations General Assembly. Proposals on action lines, which will fall under the responsibility of the relevant United Nations agencies, are restricted to the Geneva Plan of Action. They avoid referring to the outcomes of the Tunis phase of WSIS in regard to the following topics: WSIS implementation mechanism and follow-up; Internet governance (other than Internet matters related to action lines); the Internet Governance Forum; enhanced cooperation; and the Commission on Science and Technology for Development. They also avoid prejudging the outcomes of the 68th Session of the United Nations General Assembly on modalities of the overall review. Finally, the drafts respect the mandates given by the Tunis Agenda and they embody multistakeholder principles.



Agreed structure of draft output documents

WSIS+10 Statement on Implementation of the WSIS Outcomes

- A Preamble**
- B Overview of the implementation of action lines**
- C Challenges during implementation of action lines and new challenges that have emerged**

WSIS+10 Vision for WSIS Beyond 2015

- A Preamble**
- B Priority areas**
- C Action lines**
- D Other issues not covered by action lines above [, if any]**
- E [Accountability and] measuring of the WSIS action lines beyond 2015, targets and indicators for an open and inclusive information/knowledge society for all beyond 2015.**

The meeting noted with appreciation the proposed draft texts and the fact that the United Nations family was working together as one ensuring that there was no duplication of efforts and resources.

Several stakeholders emphasized the need for a clear link between WSIS and the sustainable development process. The meeting reached agreement on the structure of the two output documents (see box).

The second meeting of the WSIS+10 Multistakeholder Preparatory Platform will be held on 16–18 December 2013 at ITU headquarters. Remote participation is encouraged. Member States are invited to submit ten-year country reports by 20 January 2014.



■ LTE networks and devices on the rise

Paving the way for true 4G (IMT-Advanced) connectivity

Long-term evolution (LTE) is being rolled out very fast worldwide. The first commercial launch of LTE took place in Europe in December 2009, with TeliaSonera providing services to customers in Stockholm (Sweden) and Oslo (Norway). Today, the world's largest LTE network is in the United States, but emerging markets in Asia-Pacific and Latin America have the highest number of planned LTE networks, according to Analysys Mason (see Figure 1).

The Global mobile Suppliers Association (GSA) reports that 222 operators in 83 countries had commercially launched LTE services by October 2013 — up from 194 operators in 75 countries

in July 2013. GSA forecasts that there will be 260 commercial LTE networks in 93 countries by the end of 2013. Industry leaders are now preparing for LTE's next step — LTE-Advanced.

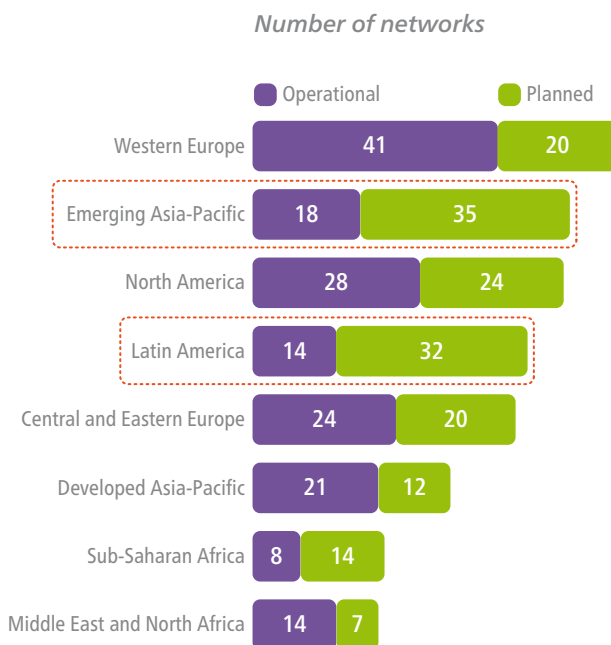
Leading international efforts to produce global standards for mobile communications, ITU's Radiocommunication Sector (ITU-R) in 2011 completed the assessment of candidates for the next generation of global mobile broadband technology, known as IMT-Advanced (4G). Two radio interface technologies, LTE-Advanced and WirelessMAN-Advanced, were chosen and these standards were agreed by ITU Member States at the Radiocommunication Assembly in January 2012.

The first step for LTE-Advanced — carrier aggregation — was launched in June 2013 and is expected to leverage more spectrum and increase data rates. LTE-Advanced promises other improvements, including advanced antenna techniques that would increase spectral efficiency, and heterogeneous network (HetNet) optimizations that bring the most out of small cells, according to a white paper from Qualcomm entitled *LTE Advanced: An evolution built for the long-haul*. Carrier aggregation, the paper explains, combines multiple carriers at the device level to provide a bigger data pipe to the user — a bigger data pipe means higher data rates, both peak (as high as over 1 Gbit/s) and, more importantly, higher user data rates across the cell coverage area.

Smartphones in the lead

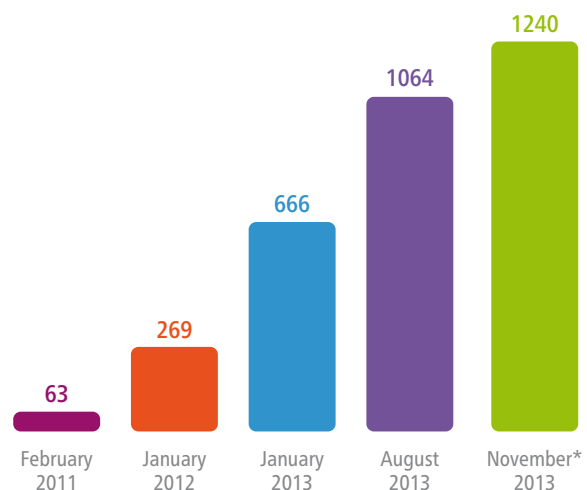
LTE user devices are also on the rise. The GSA report *Status of the LTE Ecosystem*, released on 7 November 2013, says that 120 manufacturers have announced 1240 LTE-enabled user devices. Smartphones continue to be the largest LTE device category with 455 products released, representing 36 per cent of all LTE device types (see Figure 2 and chart on page 46). The most widely used band in network deployments continues to be 1800 MHz which is used in 43 per cent of commercially launched LTE networks. The next most popular contiguous bands are 2.6 GHz used in 30 per cent of networks, followed by 800 MHz which is used in more than 12 per cent of networks today, according to GSA.

Figure 1 — Operational and planned LTE networks by region, July, 2013



Source: Analysys Mason, 2013.

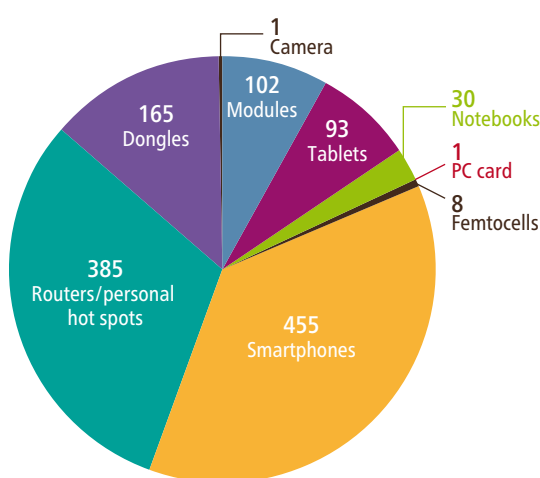
Figure 2 — LTE user devices growth



*Projection

Source: Global mobile Suppliers Association (GSA).

LTE ecosystem: 1240 user devices announced



Source: Global mobile Suppliers Association (GSA).

APT700 MHz band plan spreads worldwide

Adoption of the Asia-Pacific Telecommunity Band Plan (APT700) is expected to make mobile broadband accessible and affordable to more than two billion people in the Asia-Pacific region. GSA President, Alan Hadden, speaking as moderator ahead of the high-level industry panel session at ITU Telecom World 2013, held in November, in Bangkok, on the "Impact of Spectrum Options on Device Availability" underlined that "Having globally aligned spectrum bands is a great result for end consumers, as these make international roaming easier, and help drive early device availability. Adoption of the APT700 MHz band plan represents a major opportunity for regional and global spectrum harmonization that could deliver the benefits of economies of scale for end-user devices."

On 23 September 2013, Telstra, in association with GSMA and GSA, launched a campaign to promote the APT700 spectrum band for 4G (IMT-Advanced) networks. The APT700 band, also known as the digital dividend, reuses spectrum made available as a result of the transition from analogue to digital television and radio channels. Its propagation characteristics are ideal for rural coverage as well as indoor urban penetration.

As part of their campaign, Telstra, GSMA and GSA are putting out a series of information papers for operators, industry suppliers and regulators, covering the rapidly emerging APT700 ecosystem. The papers highlight the need for appropriate devices to be available to consumers in a timely manner in order to realize the benefits that broadband can bring. With devices lagging 18 months on average behind spectrum release, mobile handsets with smart to basic functionality will need to be introduced by late 2013 to meet demand as the 700 MHz APT networks start to roll out. Barriers to connecting everyone to broadband include the lack of low-price devices, and the fact that only 2G/3G devices and fixed-line broadband are available in many rural areas, particularly in emerging markets.

"Providing a source of reliable and comprehensive information is important for operators to be able to understand the capabilities, scale and timing of emerging technologies such as APT700 for 4G", says Mike Wright, Executive Director of Networks and Access Technologies, Telstra Operations. "Based on information about these bands, operators can build technology and investment roadmaps with increasing certainty. This in turn leads to certainty for network and device vendors, which collectively grows and accelerates the new ecosystem."

Strong support for LTE in Asia-Pacific and Latin America will help to offset the head start that Europe and North America have enjoyed. A more-balanced global LTE market is expected to emerge by 2018, with markets such as Brazil, India and the Russian Federation each accounting for 5 per cent of LTE connections worldwide.



"GSMA has lobbied at national, regional and global levels for a number of years for alignment in digital dividend spectrum band allocations, on the basis of the economic benefits of 4G networks to a country and the greater economy of scale that an aligned band plan can offer to the industry as a whole", says Alex Sinclair, Chief Technology Officer, GSMA. "The characteristics of the APT700 MHz band plan enable individual operators to achieve high geographic and population coverage levels at much lower cost, whilst a global band strategy based on APT700 will also catalyse international roaming business, enabling customers to cross international boundaries and still receive 4G service."

Adoption of APT700 in Brazil, Chile, Colombia and Mexico provides operators and users in the Latin American region with access to the worldwide LTE700 ecosystem, which offers a broad choice of equipment and terminals. Emerging market countries are also taking advantage of LTE technology. India, Malaysia and Viet Nam are the leaders in Asia-Pacific for the number of LTE networks planned. Operators in India, Malaysia and Nepal are also planning to launch TD-LTE networks.

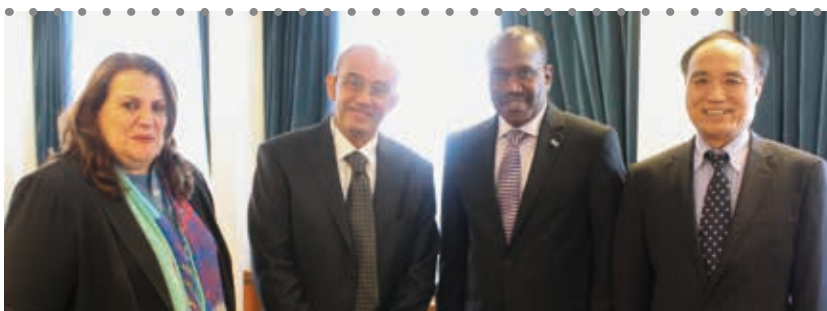
GSMA's report *Mobile Economy Asia Pacific 2013* indicates that the release of the digital dividend band in the Asia-Pacific region by 2020 could add USD 1 trillion to gross domestic product (GDP), increase tax revenue by USD 215 billion, and create 1.4 million new businesses and 2.7 million new jobs.



Official Visits

During September 2013 courtesy visits were made to ITU Secretary-General Dr Hamadoun I. Touré by the following ministers, ambassadors to the United Nations Office and other international organizations in Geneva, and other important guests.

ITU headquarters



From left to right: Wafaa Bassim, Ambassador of Egypt; Ahmed Al Borai, Egypt's Minister of Social Security; Dr Hamadoun I. Touré, ITU Secretary-General; and Houlin Zhao, ITU Deputy Secretary-General



Robert E. Khan, Chairman, CEO and President of the Corporation for National Research Initiatives (CNRI)



Philip Koenig, Senior Strategy Consultant, Philip Koenig



From left to right: Blaise Judja-Sato, Executive Manager of the ITU Telecom Secretariat; Tweesak Dheerakiatkumchorn, Advisor to the Chairman of IMPACT; Dr Hamadoun I. Touré, ITU Secretary-General; and Somboon Mekpaiboonwattana, Deputy Permanent Secretary of the Ministry of Information and Communication Technology, Thailand

BYND 2015 Global Youth Summit, Costa Rica



Dr Hamadoun I. Touré, ITU Secretary-General and Sheikh Abdullah Bin Mohammed Bin Saud Al Thani, Chairman of the Board of Directors of Ooredoo (formerly Qtel Group)



Richard Hall, Director of Global Strategic Alliances, Intel Corporation



Ellen M. Blackler, Vice President, Global Public Policy, The Walt Disney Company



Whurley, co-founder and General Manager of Chaotic Moon Labs



Ahmad Alhendawi, United Nations Secretary-General's Envoy for Youth

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All photos are by Ivan Wood/ITU.



Front row (left to right): Laura Chinchilla, President of Costa Rica and Patron of the ITU Child Online Protection initiative; and Dame Patience Goodluck Jonathan, First Lady of Nigeria, President of the African First Ladies Peace Mission and ITU Child Online Protection Champion.
Back row (second left): Deborah Taylor Tate, ITU Special Envoy for Child Online Protection



Dr Akhtar Badshah, Senior Director,
Global Community Affairs, Microsoft



Néstor Osorio, President of the United
Nations Economic and Social Council



Derek Kopke, Executive Vice President,
International Business Development,
DataWind Ltd



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