Opening Remarks
"Connected World in 2018"
e-Estonia Conference 2008

Dr. Hamadoun I. Touré
Secretary-General
International Telecommunication Union
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Excellencies, Ladies and Gentlemen,

Introduction

- Allow me to begin by thanking His Excellency, Juhan Parts, Minister of Economic Affairs and Communications, for his kind invitation to address this distinguished audience gathered here today.

- I am honoured to attend this e-Estonia Conference 2008 – firstly, to share with you some of the very important work that ITU is doing to connect the world with new and improved telecommunications, but also to learn from some of the strategies that Estonia has adopted that have helped make it a leading ICT economy in the world.

Chapeau = Key Messages

- Today, we are considering what the world will look like ten years from now, in 2018. The ICT industry tends to overstate the impact of short-term change, but to underestimate the long-term transformation of the industry. Consider, for example, the excitement surrounding the introduction of 3G mobile services, compared with the long-term transformation wrought by the Internet over the last ten years and the changes promised by IP-based NGN until 2018. To see this, we need only consider how far we have come over that time – ten years ago, mobile phones were starting to spread, dial-up Internet functioned separately from wireless technologies and the impact of ICTs in education, healthcare and consumer lifestyles was just beginning to be explored.

- Looking forward over the next ten years, ITU considers that, in ten years' time, the future of the connected world will be (1) mobile, (2) converged and seamless and (3) that, with a united effort, everyone should be able to participate in the connected world. Allow me to consider each of these dimensions of the Connected World in 2018 in turn.

(1) Key Message One – Connectivity will be mainly mobile

- The explosion of mobile phones is unprecedented. ITU first recorded the number of mobile phones overtaking mainline telephones worldwide in 2002. Since then, mobile telephony has grown to become the predominant form of access. In 2006, mobile phones outnumbered mainline telephones by more than two to one. ITU data show that the number of mobile cellular subscribers surpassed the 3 billion mark in August 2007, broadly equivalent to one in two of the world's inhabitants now having access to a mobile phone.

- The fastest-growing mobile markets are to be found in developing countries. India and China both added over 5 million cellular subscribers a month throughout 2006. Of all the targets agreed by world leaders at the World Summit on the Information Society (WSIS), mobile technologies offer the most promise for access to ICTs for developing countries. More and more people are gaining access to ICTs and their benefits for health, education, government and business through mobile telephony.

- In a number of countries, the penetration rate of mobile subscriptions is now greater than 100% - including Estonia, with 125 mobile cellular subscribers per 100 inhabitants. Estonia's mobile market enjoyed average growth of just over 20% between 2001-2006.

(2) Key Message Two – ITU's role in promoting Converged and Seamless Services

- ITU is working hard to ensure the future of converged and seamless communication services. Recent growth in 3G telephony is one example, offering the possibility to access the Internet on the move. In Estonia, EMT introduced 3G as early as October 2005, followed by Radiolinja Eesti and Tele2 Eesti in 2006. Estonia is reaping the benefits of a vibrant competitive mobile market in the introduction of new and converged services.

- A milestone decision for the future of 3G was taken at the recent World Radiocommunication Conference (WRC-07), where it was agreed to earmark new spectrum for International Mobile Telecommunications or IMT, which will provide for extended coverage for 3G services, particularly in developing regions, and additional capacity for advanced mobile multimedia services.

- However, the long-term transformation of the industry promises to be far more radical than just 3G. The Telecommunication Sector ITU-T is working on standards vital to the development of Next-Generation Networks (NGN) or packet-based networks in which service-related functions are independent from underlying transport-related technologies. These networks will offer unrestricted access by users to different service providers, with generalized mobility ensuring seamless mobility between networks.

- For many, Voice over Internet Protocol or VoIP services are a first step in this direction, offering voice services over IP-based broadband networks. However, the advent of NGN represents much more, representing the collision of the PSTN world of traditional telecommunication services with the Internet, based on best effort service class. Connectivity in ten years' time will be shaped by the outcome of this collision, but services will be converged and they will be seamless - consumers enjoy services that will transfer effortlessly between networks, network providers and access device, following their every move.

- The large-scale introduction of broadband wireless access will also promote a fully connected world. Broadband wireless can not only cover large areas, but provide innovative and high-speed broadband services to consumers in remote and underserved areas. In October 2007, the ITU Radiocommunication Assembly (RA-07) added a WiMAX-derived technology to the IMT-2000 set of global standards. This paves the way for the deployment of voice, data and multimedia services to stationary and mobile devices, at higher speeds and across wider areas. Significantly, it promises new solutions to bring high-capacity wireless Internet services to both urban and rural markets.

- In the future connected world, broadcasting is also vital, for the distribution of content and the preservation of cultural values in the global village. Broadcasting is undergoing a digital revolution that will transform the broadcasting sector. ITU is working on various projects to support developing countries in their digital transition. ITU's Regional Radiocommunication Conference in June 2006 agreed the implementation of digital broadcasting services in Region 1 and Iran. The transition to digital terrestrial broadcasting should be complete by 2015, to coincide with the UN Millennium Development Goals.

- ITU is working hard on a number of fronts to ensure a sound basis for the introduction of flexible and interoperable new services, by agreeing both the essential international standards and ensuring the frequency allocation for these services to operate.

(3) Key Message Three – A truly Connected World for all

- Despite these many exciting technological innovations taking place around the world, large ICT gaps remain, that must be addressed the benefits of a Connected World are to be extended to everyone.

- Broadband Internet access is now a basic infrastructure of the modern economy. No modern economy can compete or participate in global markets without access to modern, effective and secure information networks. However, many countries are struggling with outdated legacy networks. Many rural areas remain without

access. Even where access is available, prices are so high that access is choked off, hampering economic growth and development.

- At the World Summit on the Information Society, world leaders recognized the vital role of ICTs in stimulating social and economic development. In this spirit, ITU is stepping up its efforts to connect the unconnected by 2015. In October 2007, ITU launched the *Connect Africa* initiative at a Summit in Kigali, Rwanda, which brought together over 1, 000 partners from across Africa and globally.

- The focus in Kigali was not on aid or charity - no country has achieved long-term prosperity on this basis. Instead, there was broad consensus that investment and business opportunities are needed to support sustainable employment, growth and development. A total of 55 billion dollars was committed between now and 2012 to expand the broadband ICT networks in Africa, from industry, development banks and others. Additional commitments were made on workforce training, policy and regulatory reform to support these investments.

- ITU is working with partners to implement the commitments made in Kigali. ITU has a number of initiatives in human capacity-building, including Internet Training Centres and Centres of Excellence, as well as youth scholarships to train the next generation of ICT experts and leaders. We work closely with regulators and administrations on policy and regulatory harmonization and modernization.

- However, much remains to be done. We look forward to repeating the success of the *Connect Africa* approach in other regions around the world over the coming months, to ensure we fulfil our mission – to ensure that everyone benefits from the emerging Connect World.

Estonia-specific Material

- Finally, allow me to conclude by illustrating how the ICT industry overestimates short-term change, but underestimate the long-term transformation of the industry with reference to Estonia, which is a fine example of the long-term progress possible through a coordinated policy effort.
  - Almost ten years ago, in May 1998, the Estonian Parliament adopted the "Principles of the Estonian Information Policy" as a roadmap for Estonia's development in ICTs. The Ministry of Economic Affairs and Communications coordinates annual information policy action plans specifying detailed actions, responsibilities and targets.
  - In February 1996, the Government launched the "Tiger Leap" program to modernize education.
  - In January 2007, the Estonian Information Society Strategy 2013 came into force.

- The results have been nothing short of remarkable. By 2000, all schools had computers, fulfilling a key WSIS target. By the start of 2003, 98 per cent were

connected to the Internet. ICTs have been integrated into the curriculum, both as a subject and as a tool in the teaching of other subjects.

- In 2006, Estonia had a broadband subscriber penetration of 19 per cent, well above the overall European average of 11 per 100 inhabitants. Innovative new applications have been introduced, including Internet banking and m-commerce. Estonia has the largest public key infrastructure in Europe - over 80% of citizens possess an electronic ID card for electronic authentication and digital signatures.

- Estonia is the highest Central and Eastern European nation in the UN's e-government rankings [19th out of 191 countries in the UN's global e-government report 2005]. By the Ministry's own analysis, 87% of tax returns are submitted over the Internet and electronic voting is possible using secure processes.

- Estonia was the only Central and Eastern transition economy to make it to the top twenty-five countries in terms of digital opportunity – Estonia's experience and policy framework are showcased and described at length in the *World Information Society Report 2007* as a leading example of how a coordinated policy framework, led by the Ministry of Economic Affairs and Communications, has translated into real, tangible achievements in ICT connectivity and services, to make Estonia a leading ICT economy in the region and beyond.

Conclusion

Estonia is a remarkable example of what a country can achieve, if it invests in the potential of ICTs to generate new opportunities. Prosperity comes to those with vision and determination, and I applaud the efforts of your government, businesses and citizens to make Estonia a leading ICT economy. I look forward to learning more about the experience of Estonia and your vision of the future, from our discussions today. Most of all, I look forward to a long friendship and partnership with you over the years to come.

Thank you very much.