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1. Introduction

High-Level Policy Sessions

At the WSIS Forum 2018, moderated High-Level Policy Sessions of the High-level Track (HLT) took place on the 20 and 21 of June. During these sessions, moderated Policy Sessions with high-ranking officials of the WSIS Stakeholder community, representing the Government, Private Sector, Civil Society, Academia and International Organizations were held.

2. WSIS Forum 2018: Chairman

H.E Eng. Majed Sultan Al Mesmar

Deputy Director General

Telecommunication Sector, Telecommunications Regulatory Authority (TRA)

United Arab Emirates

Official Opening Segment: Opening Ceremony

- **Mr. Antonio Guterres, UN Secretary General (Video message)**

1. **Ms. Amina Mohammed,** UN Deputy Secretary-General
2. **Mr. Houlin Zhao**, Secretary-General, ITU
3. **H.E Eng. Majed Sultan Al Mesmar**, Deputy Director General, Telecommunication Sector, Telecommunications Regulatory Authority (TRA), United Arab Emirates (Platinum Partner)
4. **Ms. Isabelle Durant**, Deputy Secretary-General, UNCTAD
5. **Mr. Getachew Engida**, Deputy Director-General, UNESCO
6. **H.E. Dr. Abdulaziz Bin Salem Al-Ruwais**, Governor, CITC, Saudi Arabia (Gold Partner)
7. **Mr. Yi Xiaozhun**, Deputy Director-General, WTO
8. **Mr. Nikhil Seth**, Executive Director, UNITAR
9. **Mr. Mahmoud Mohieldin**, Senior Vice President, World Bank Group
10. **Mr. Peter Major**, Vice- Chair, UNCSTD
11. **Mr. Huidi Li,** Executive Vice President, China Mobile
12. **Mr. Cyril Ritchie**, First Vice President, The Conference of NGOs (CoNGO)

High-level Strategic Dialogue - Multistakeholder Partnership for WSIS Implementation

- **Chairman - H.E Eng. Majed Sultan Al Mesmar**, Deputy Director General, Telecommunication Sector, Telecommunications Regulatory Authority (TRA), United Arab Emirates
- **Mr. Malcolm Johnson**, Deputy Secretary-General, ITU (Moderator)
- **UNECE** - Ms. Olga Algayerova, Executive Secretary
- **UN-ESCWA** - Mr. Mohamed Ali Alhakim, Under-Secretary-General and Executive Secretary
- **Rwanda -** H.E. Mr. Jean de Dieu Rurangirwa, Minister, Ministry of Information Technology and Communications (MiTEC)
- **Japan** — H.E. Mr. Masahiko Tominaga, Vice-Minister for Policy Coordination (International Affairs), Ministry of Internal Affairs and Communications
- **Oman-** *Mr. Dr. Salim Al Ruzaiqi***,** CEO, Information Technology Authority
- **Poland** — Mr. Marcin Cichy, President, Office for Electronic Communications
- **Switzerland** – Mr. Thomas Schneider, Ambassador and Director of International Affairs, Swiss Federal Office of Communication (OFCOM)
- **IEEE** - Ms. Karen Bartleson, Past President and CEO
- **ICANN**- Mr. Tarek Kamel**,** Senior Advisor to the President and CEO for Government and IGO Engagement
- **ISOC**- Ms. Constance Bommelaer, Senior Director of Global Internet Policy

Japan

H.E. Mr. Masahiko Tominaga

Vice-Minister for Policy Coordination (International Affairs)

Ministry of Internal Affairs and Communications

Q1. As for this year's WSIS forum theme, "Leveraging ICTs to build Information and Knowledge Societies for achieving the SDGs", what is our key priority?

Q2. To accomplish that priority, how do you collaborate with multi-stakeholders?

Excellencies, distinguished guests, ladies and gentleman. I am honored and pleased to attend 2018 WSIS forum.

I would like to celebrate 15 years of Implementation of Geneva Plan of Action, and express my sincere appreciation to the ITU Secretary-General, distinguished representatives of international organizations, WSIS Secretariat and all stakeholders.

As for this year's WSIS forum theme, I think there are 2 key priorities.

The first is to ensure access to ICT for all people everywhere.

Half the people on the globe are still offline, so bridging digital divides is still the most crucial and urgent issue.

In order not to leave anyone behind from the growth led by ICT, we first need to provide everyone with access even if the access speed is not high.

All stakeholders have the responsibility to consider how to achieve this through exchanging knowledge and experience, and collaborating together.

In parallel, considering the rapidly evolving digitization, it is also important to create the sustainable ICT infrastructure development plan which can accommodate large amounts of data traffic for the coming digital transformation era.

Japan promotes the public-private initiative named “Quality Infrastructure Investment“, and contributes to bridging digital divides through the development of ICT infrastructure. From a long-term perspective, the key is how to reduce Life Cycle Cost considering operation and maintenance cost, not only focusing on cheap initial cost.

This initiative also includes capacity building and skill transfer for operation and maintenance.

In addition, we should make fair and transparent policy and legal frameworks that encourage competition and investment.

These activities can enable affordable access for everyone.

The second priority is to promote and protect the free flow of information.

I believe the free flow of information is essential to maximize the benefit of ICT and digitization, and to make everyone use the resources of the cyberspace to the full extent.

Considering the cross-border nature of ICT, it is absolutely necessary to enable the utilization of ICT in various fields beyond boundaries, and to promote it in an internationally harmonized manner.

The more harmonized, the more benefits of digitization increase, and as a consequence, digital transformation will be accelerated, and Information and Knowledge Societies will be developed.

In order to effectively accomplish these 2 priorities, collaboration with stakeholders is indispensable.

In Japan, when we develop policies on ICT, we always establish a dialogue with the inclusion of multi-stakeholders, where we exchange knowledges, consider societal and economic implications, and recognize each respective role and responsibility. I believe it is highly important to involve related stakeholders from the early stages of planning, design or policy making.

Furthermore, partnership among stakeholders should be fostered not only at national level, but also regional and international level.

We, the government of Japan, will continue to put forth our best possible efforts, together with ITU and all stakeholders.

Thanks you for your attention.

World Summit on Information Society

IEEE
Ms. Karen Bartleson
Past President and CEO

Secretary General, Honorable Ministers, Distinguished Guests, Ladies and Gentlemen, I am honored to be here today, and I am pleased to deliver this statement on behalf of IEEE as a Specific Activity Partner of the 2018 WSIS Forum.

IEEE shares the vision of an inclusive and development-oriented information society, centered around individuals, as outlined by the United Nations through the World Summit on the Information Society. Information and Communication Technologies – ICTs – will play a critical role in sustainable development of the human race and our planet. IEEE is the world's largest technical professional organization, representing over 420,000 members worldwide from over 190 countries. As an international body, IEEE has a vital role for impactful technology development and standardization. Our members continue to shape ICTs for current and future generations. Grounded in the principles of openness, transparency, and inclusiveness, we work in collaboration with stakeholders around the globe to advance technology for the benefit of humanity.

The entire global technology ecosystem is confronting a significant challenge in terms of ethics in design, including Artificial Intelligence and Autonomous Systems or AI/AS. The ongoing development of powerful technologies and disruptive innovations in autonomous and intelligent systems demands a keener focus on social responsibility and accountability from the global technology community.

As the use and impact of AI/AS become pervasive, there is a need to establish societal and policy guidelines in order for such systems to serve humanity's values and ethical principles. To contribute in a positive manner, stakeholder communities need to participate in an open and honest debate around sets of values, institutions, symbols, and representations. This will allow for an elevated level of trust between people and technology that is needed for AI/AS to be truly beneficial to our daily lives.

AI and AS have been recognized as key enablers for achieving the goals of humanitarian relief, human rights, and the SDGs. This recognition provides the opportunity to demonstrate the positive and supportive role that these technologies can play in these critical areas. The narrative of autonomous systems for the common good is beginning to present itself in various settings. Key elements framing this common-good discussion relate to the need for it to be human-centered and include the need for accountability in order to ensure that all outcomes are fair and inclusive.

The scaling and use of AI/AS represent a genuine opportunity to provide individuals and communities with greater autonomy and choice. AI/AS will potentially disrupt all manner of economic, social, and political relationships and interaction, particularly for the labor market and availability of jobs. These disruptions will provide a historical opportunity to re-establish these relationships so that they are reflective of updated and sustainable notions of autonomy and choice.

Currently, many debates surrounding AI/AS are taking place within advanced countries among individuals benefiting from adequate finances and above average living conditions. It is imperative that all people throughout the world - regardless of their socio-economic status - are considered in the development and application of AI/AS to avoid the risk of bias, excessive imbalances, and general non-acceptance of these technologies. In the absence of that comprehensive environment, AI/AS policy issues will be addressed piecemeal by different jurisdictions and in different sectors. In that context of distributed policy making, disjoint and possibly conflicting policies and initiatives are the likely result, reducing potential, positive impact. However, some measure of policy harmony can still be achieved if there is a common framing or policy generation process that can be shared across jurisdictions and/or sectors.

As a person who believes in the power of technology to benefit humanity, I find the widespread deployment of AI/AS to be a very compelling vision. I think most of you in this room do, too. But I think we can also agree that it's a challenging vision, as well. The potential benefits for quality of life are breathtaking; the ethical questions to be solved, however, are daunting:

- Who determines when and how AI/AS can be used?
- Who monitors AI/AS development and expansion?
- Who ensures compliance with safety standards?
- Who takes responsibility when AI/AS malfunctions?
- What safeguards are in place to protect the massive amount of data and personal information needed to power AI/AS?

Such questions at the outset of AI/AS proliferation around the globe illustrate the pressing need for deep conversation and open, balanced collaboration among diverse stakeholders … the AI/AS experts who understand the technologies … the policy makers who devise the regulatory environment … the public who have varying levels of interaction and acceptance of AI/AS. If we are to realize the best version of the world's AI/AS vision, it is imperative that we comprehensively address the ethical challenges today. Ethics must be a non-negotiable part of our composition as engineers and scientists. Ethics in design must be ingrained within us as a guiding principle.

In furtherance of the AI/AS vision, IEEE created the IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems. This initiative brings together an international group of experts to pursue the goal of safe and beneficial AI/AS in an open and collaborative manner. The initiative recently published the second version of a document titled: *Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems*. It is the most comprehensive, crowd-sourced global treatise regarding the ethics of autonomous and intelligent systems available today. In addition, the initiative has led to more than ten standards projects in various stages of development to address the current and future impacts of AI/AS.

IEEE is committed to working with all stakeholders seeking to leverage Information and Communication Technologies to implement the WSIS vision. In the past, here at the WSIS Forum, IEEE stated that achieving the SDGs is not an easy task but one that everyone in this room is willing to accept. We believe that in collaboration with others, we have helped make advances toward this grand achievement by utilizing our collective skills, expertise, and experience.

We look forward to continued collaboration with all of you.

Thank you.

High-Level Strategic Dialogue – ICTs Advancing the Implementation of SDGs Celebrating 15 Years of Geneva Plan of Implementation

1. **Chairman H.E Eng. Majed Sultan Al Mesmar**, Deputy Director General, Telecommunication Sector, Telecommunications Regulatory Authority (TRA), United Arab Emirates
2. **Mr. Brahima Sanou**, Director, Telecommunication Development Bureau, ITU (Moderator)
3. **Ghana** – H.E. Mrs. Ursula Owusu-Ekuful, Minister, Ministry of Communications
4. **Brazil**– H.E. Mr. Andre Borges, Secretary of Telecommunications, Ministry of Science, Technology, Innovation and Communication
5. **India –** Ms. Aruna Sundararajan, Secretary (Telecom), Vice-Minister, Ministry of Communications
6. **Mexico –** Ms. Yolanda Martinez Mancilla, Chief of National Digital Strategy, Government of Mexico - Office of the Presidency
7. **H.E. Amb. Janis Karklins,** President of WSIS 2005 Preparatory Committee for the Tunis Phase
8. **Prof. Vladimir Minkin,** Chairman of the Multistakeholder Preparatory Process, WSIS +10 High-Level Event 2014, Geneva
9. **Mr. Marc Furrer,** Former Director of the Swiss Federal Office of Communications (OFCOM)
10. **Mr. Ridha Guellouz**, International Expert in ICT strategies, President - Tunisian ICT Association – ATTIC Tunisia
11. **UNDP**- Ms. Maria Luisa Silva, Director, UNDP Representation Office in Geneva
12. **International Chamber of Commerce** -Ms. Elizabeth Thomas-Raynaud, Senior Policy Executive

International Chamber of Commerce

Ms. Elizabeth Thomas-Raynaud
Senior Policy Executive

Good morning,
It is a pleasure to join you today to share perspective from the private sector in this opening plenary.
The International Chamber of Commerce – ICC – is the world's largest and most representative business organization with members from all sizes as well as all sectors and regions. ICC was created before the UN itself by business leaders – known as Merchants of Peace – because they pursued peace and prosperity through trade and investment. This goal is increasingly challenged by some but as relevant today as ever. For almost 100 years ICC has served as the voice of global business across many international organizations and multistakeholder fora. Recognising the value of its role and necessity of partnership with the private sector in pursuing the global agenda, the UN General Assembly granted ICC official Observer status just over a year ago.
Business takes its role in advancing the global agenda very seriously and we are here, in New York at UN HQ and around the globe working with governments and stakeholder communities to inform and partner for better policy and outcomes to serve our shared interests in sustainable economic and social development.
ICC was the business focal point for during the WSIS process started here in Geneva 15 years ago. ICC through its Business Action to Support the Information Society (ICC BASIS) initiative helps business stay engaged in the action lines follow-up.
The WSIS Forum provides a valuable inflection point each year for us to come together and take stock of the progress. It is part of how we collectively work towards an open and inclusive information society, as envisioned in the Geneva Plan of Action and pursued through the Action lines. We appreciate hearing highlights from the efforts made across the many UN agencies involved as well as the work of governments, business and other stakeholders to benchmark progress and incentivize further action.
Information communication technology is now widely recognised as a critical enabler of the SDGs, equipping populations with tools to relieve poverty, access education, provide healthcare and reduce CO2 emissions, just to name a few.
Recently I was asked to be a judge for a Global Mobile award recognising initiatives leveraging mobile technology for sustainable development. The winner of this award was exemplary of how an innovative technology application can have a sustainable and positive impact on the most critical and basic of human needs. I raise it here for us to consider as the kind of solutions and thinking we need to encourage and facilitate collectively.

World Summit on Information Society

eWATERpay uses mobile technology, Internet of Things (IoT) and Near field communication (NFC) to deliver financial sustainability for water supply operators. It replaced the inefficient and unreliable and sometimes wasteful water provision system used in villages with a system that leveraged mobile payments so villagers can pay for and access water use on demand – at the same time supplying the means for investments that could ensure continuity, reliablilty and sustainability

This example illustrates that development is not sequential: water, energy and poverty reduction are needs that can be addressed with the right investment policies to support solutions leveraging technology to address these issues.

What is the road we need to take to get where we are going in the most inclusive and sustainable way? So we can enable every person on the planet to put their local knowledge, talent and ambition to productive use, to both contribute and achieve more for their collective well being.

Enable sustainable investment.

For business to provide sustainable investment to realize our common goals a holistic policy framework is required.

Private sector has been an important actor in deploying Internet related infrastructure, innovating and delivering a wide range of ICT applications and services. On these investments local and global digital ecosystems have flourished – developing demand and supply sides of national economies.

Sustainable private sector investment will continue to be an important factor in pursuing further economic and social development. Aligning public policies that promote rather than deter investment in infrastructure, and technologies to enable new applications and services is paramount.

Experts from ICC's Commission on the Digital Economy produced recommendations in a paper entitled "ICT, Policy and Sustainable Economic Development". The paper outlines the enabling environment and offers cases to explain how it works in practice. Briefly this enabling policy environment balances considerations in four dimensions:

1. economic considerations on how to promote sustained investment and encourage innovation and entrepreneurship that can lead to national economic growth;
2. social and cultural considerations : on how to foster ICT and digital literacy skills to enable consumption as well as the creation of relevant content, services, and applications for the local communities that are respectful of human rights;
3. technical consideration : on how maintaining a safe, secure, resilient and globally interoperable infrastructure is necessary to supports the above objectives; and
4. governance approaches that (1) encourage public-private partnerships and initiatives that can leverage the unique contributions of each stakeholder group, including government, business, civil society and the technical community, and furthermore, (2) reflect the needs of stakeholders and the different considerations that are required to achieve sustainable economic development.

Effective policymaking requires careful assessment of broader potential consequences, either on investment or development. By engaging participation from all relevant stakeholders, governments can generate policies that are timely, scalable, and innovation enabling.
To conclude, I would like to recap
• ICC is a partner with a long history of supporting trade to advance peace – we have much experience and value in our network to invest in pursuing the global goals and we are committed to partnering both officially at the UN as an Observer as well as informally with all stakeholders to advance them.
• Cooperation is vital to enable changes that are impactful, economically sustainable, and relevant to communities around the world. No stakeholder can get there alone.
• A holistic policy framework is a priority for us to work on together to attract the level of investment necessary for the achievement of our shared goals of sustainable development and inclusive economic growth.

I look forward to discussing further throughout the Forum and I wish you all a very productive week.
Thank you.

High level Policy Sessions

Session One: WSIS Action Lines in 2030 Agenda

High level Track Facilitator: Mr. George Anthony Giannoumis, Oslo and Akershus University College of Applied Sciences, Norway

High level speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Ms. Doreen Bogdan-Martin, Strategic Planning and Membership Department
3. **Georgia** – H.E. Mr. Giorgi Cherkezishvili, Deputy Minister, Ministry of Economy and Sustainable Development of Georgia
4. **Portugal**- Ms. Paula Meira Lourenço, Member of the Board, Autoridade Nacional de Comunicações (ANACOM)
5. **Sweden-** Mr. Dan Sjöblom, Director General, Swedish Post and Telecom Authority
6. **Internet Governance Lab/Institute on Disability and Public Policy**- Dr. Derrick Cogburn, Director

1. Introduction

National governments, industry, civil society and academic institutions across the globe have engaged with the 2030 agenda. This is essential as half the world still experience barriers using or accessing the Internet. The high-level meeting in 2015, which reviewed the WSIS Action Lines, found that access to ICTs must be regarded as an indicator for development in and of itself. Last year's report from the High-Level Political Forum each of the members of the UN chief executive board provided demonstrable evidence around the use of ICTs to achieve their respective missions and the Sustainable Development Goals (SDG). The time is now to accelerate progress, use the force behind ICTs and the support of the WSIS agenda to achieve the SDGs. The first WSIS 2018 policy session will look into what different countries are doing both nationally and globally to reach the SDG goals, what trends are currently rising and where efforts are being made.

2. Vision

One of the most important mechanisms for reaching the SDGs is to provide internet access for everyone both nationally and globally. Digital inclusion is important, as any attempt to use ICTs to achieve the SDGs must not create new or expand existing digital divides that produce inequality and social exclusion. The policy is clear, the use of ICTs to achieve the SDGs should reduce and eliminate existing digital divides and support efforts towards achieving equality and social inclusion. By increasing capacity using ICTs national governments can influence the mechanisms for achieving the SDGs.

3. Fresh Priorities

While infrastructure issues, such as access to the Internet, dominated the discussions around priority areas, several delegates emphasized the need to ensure that ICTs promote equality and an inclusive society. The implementation of internet and high-speed broadband solutions such as fiber optics is a high priority. Making sure that everyone can access and use ICTs equally is important, and there are several initiatives ongoing that are facilitating progress in this area. Examples include road shows, institutional email-services which are being adopted in Portugal, mobile learning week with UNESCO, and in Sweden, educating younger generations through school programs, developing programs specifically targeting the elderly, and creating smart applications that empower persons with disabilities to participate in society on an equal basis with others.

4. Emerging trends

The primary trend that the panelists highlighted focused on employing big data analytics as a mechanism for achieving the SDGs. Using big data analytics in text mining to monitor and evaluate the WSIS Action Lines using data produced in documentation, captioning and policies emerged as a key trend. This gives the UN and WSIS the opportunity to identify which topics and interest areas are addressed by WSIS. The information produced in the form of data analytics can provide clear indications about which topics are addressed at WSIS so the UN can continue to build towards achieving the SDGs.

5. Opportunities

The principal opportunity on which the panelists focused was the use of big data analytics to accelerate progress towards the SDGs. Big data can provide governments, industry, civil society and academia with new insights about the high-priority areas for acheiving the SDGs, as the deadline to achieving the SDGs draws closer. National governments are taking these actions seriously and the panelists argued that the regions that are on pace to achieving the SDGs e.g., regarding internet coverage, must look outside their borders to contribute resources to other nations.

6. Key Challenges

Two key challenges emerged from the policy session. According to the Director General from Sweden, "It is challenging to ensure that all the players involved will provide the whole population [with high-speed Internet] between now and 2025. The panelists also highlighted the challenges associated with identifying and deploying the appropriate mechanisms for ensuring and promoting digital literacy.

7. Link with the WSIS Action Lines and Sustainable Development Goals (SDGs)

SDG 4. Quality Education and SDG 5 Gender Equality, school programs for digital literacy covered action lines C1, 2, 3, 7 and 8. SDG 9. Industry, Innovation and Infrastructure, governmental programs providing support and incentives for startups covered action line C7.

8. Case Examples

The panelists provided four useful good practice case examples. First, EU sponsored an initiative called WiFi which provides funding for 120 million EUR, so that European citizens and permanent or temporary residents can access WiFi freely. Second, telecom regulators are cooperating with academic institutions to implement a capacity building project in Sub-Saharan Africa with the aim strengthen cooperation and interaction among regulators. Third, in 2009 American University created the first fully online Master degree in disability and public policy with support from the Nippon Foundation. Fifteen fellowships including for persons with disabilities have been provided for students to finish their online Master degree. Fourth, the government of Georgia is experimenting with tools including financing goals and startup programs to support innovators in achieving the SDGs.

9. Road ahead

The panelists highlighted two opportunities for continuing progress towards Agenda 2030. First, half of the world still does not have access to the using internet. Continuing to deploy internet in rural and remote areas and investing in upgrading existing internet infrastructure provides a useful opportunity for furthering efforts towards achieving the SDGs. Second, promoting inclusive education people across the diversity of the human experience can gain digital literacy skills and provides a useful opportunity to engaging communities in utilizing ICT and the Internet. In conclusion, there is still time to reach the SDGs, and with immediate international, intersectoral and interdisciplinary collaboration focused on building and maintaining local relationships and scaling local solutions through transnational communities, governments, industry, academia and civil society can accelerate efforts to make ICT available and usable for all.

Session Two: Bridging Digital Divides

High level Track Facilitator: Ms. Renata Avila, Web Foundation, Guatemala

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator UNESCO –**Mr. Boyan Radoykov, Chief of Section, Section for Universal Access and Preservation
3. **Afghanistan–** H.E. Mr. Shahzad Gul Aryobee, Minister, Ministry of Communications and Information Technologies
4. **Benin–** H.E. Mrs. Aurelie Adam-Soule Zoumarou, Ministre, Ministère de l'Economie Numérique et de la Communication
5. **Bhutan -** H.E. Mr. Dina Nath Dhungyel, Minister, Ministry of Information & Communications
6. **Russian Federation** – H.E. Mr. Rashid Ismailov, Deputy Minister, Ministry of Telecom and Mass Communication of the Russian Federation
7. **Internet Society (ISOC)–** Ms. Jane Coffin, Director, Development Strategy
8. **ESOA–** Mrs. Aarti Holla, Secretary General (Belgium)
9. **Global Open Data initiative for Agriculture and Nutrition–** Dr. Andre Laperriere, Executive Director, Global Open Data initiative for Agriculture and Nutrition (UK)
10. **WeRobotics–** Ms. Sonja Betschart, Co-Founder and Chief Entrepreneurship Officer (Switzerland)

1. Introduction

There is a priority to address the digital divide but also to connect old practices with new practices, including economy, to the new digital economy. The governments, private sector and civil society are investing in a long term policy efforts.

2. Vision

Enable local efforts with sustainable access to an Internet that is safe. The youth, their skills and safety while using the Internet are also crucial for the panel.

3. Fresh Priorities

Connection of rural populations, the enabling environment for high-quality foreign investment in the least developed countries, and the importance of preparing the entire economy and not the new sectors only, to the challenges of digitisation.

4. Emerging trends

More resources devoted to rural populations, for them to be connected but also empowered by connectivity, hardware and data. Data for development, combined with DIY robotics with an enabling regulatory frame could, for instance, bring opportunities to rural peasants.

5. Opportunities

There are a lot of opportunities in different technologies, for instance, 5G can be an excellent opportunity for governments to bridge the digital divide, drones for social good can empower local communities and enable a whole generation of local innovators and data for development, if genuinely open, can unlock a new generation of global innovators.

6. Key Challenges

Sustainability, investment, trust and empowerment of the newly connected citizens are among the challenges faced by different sectors. There is also not enough use or interest in open data and drones.

7. Link with the WSIS Action Lines and Sustainable Development Goals: SDG 9.

8. Case Examples

- Community networks are an affordable and empowering solution to reduce the digital divide with the community and make it sustainable.

- Benefits for good foreign investors and PPPs, as Bhutan did with its Technology park.

- Drones for good, delivering aid or solving local problems.

9. Road ahead

We need to put those disconnected first and consider their priorities, not to increase inequalities beyond digital. The efforts cannot be focused only on mobile and require collaboration across sectors: the government, academia, civil society, local communities and international organizations.

Benin

H.E. Mrs. Aurelie Adam-Soule Zoumarou, Ministre, Ministère de l'Economie Numérique et de la Communication

Monsieur le Secrétaire Général de l'UIT,
Mesdames et Messieurs les Ministres,
Mesdames et Messieurs les ……,
Mesdames et Messieurs les Organisateurs,
Honorables Invités …

Conscient de l'importance du Numérique pour un développement durable et inclusif du Bénin, le Gouvernement a fait l'option d'utiliser les Technologies de l'Information et de la Communication (TIC) comme catalyseur de dynamisme économique et de modernisation du Bénin pour l'accélération de la croissance et l'inclusion sociale d'ici l'an 2021, comme déclinée dans les ODD n° 4, 8 et 9.

Mesdames et Messieurs,
La vision du Gouvernement du Bénin est de " transformer le Bénin en la plateforme de services numériques de l'Afrique de l'Ouest pour l'accélération de la croissance et l'inclusion sociale à l'horizon 2021 ". L'une des conséquences majeures de cette vision est l'adoption, le 07 novembre 2016, de la Déclaration de Politique Sectorielle du secteur de l'économie numérique, dont les Objectifs Globaux sont :
• Le développement massif des infrastructures et la généralisation de l'accès au haut débit en vue d'atteindre un taux de couverture de 80 % ;
• L'assainissement et la dynamisation du secteur des Technologies de l'Information et de la Communication;
• L'enracinement des usages numériques au sein des entreprises, de l'administration publique et du secteur de l'éducation;
• Le développement et la modernisation des services postaux.

Mesdames et Messieurs,
De façon spécifique, il s'agit :
 d'atteindre un taux de pénétration internet global de 80 % des entreprises et des particuliers avec comme mode d'accès 40 % pour le fixe et 60 % pour le mobile ;
 de doubler la taille du marché des TIC et ainsi atteindre 580 milliards de francs CFA ;
 de créer 90 000 emplois nets dans le secteur des TIC ;
 de contribuer, via la numérisation de l'économie, au développement des autres secteurs, en particulier :
 Le secteur du e-gouvernement: l'objectif est d'atteindre un EGDI (E-government development index de l'ONU) de 0,5 ;

 Le secteur de l'éducation: l'objectif est d'atteindre 100% d'établissements primaires, secondaires et supérieurs connectés à internet;
 Le secteur du e-commerce: l'objectif est d'atteindre un taux de bancarisation de 50 % ;

 D'entrer dans le top 100 du classement Networked Readiness Index (NRI) et être premier en Afrique de l'Ouest.

Pour atteindre de ces objectifs forts ambitieux plusieurs projets structurants sont déjà en cours d'exécution ou d'achèvement, notamment :
- le projet de développement des technologies et infrastructures de télécommunications qui vise le maillage de l'ensemble du territoire national en fibre optique, en vue de la fourniture de l'internet haut et très haut débit aux administrations publiques, aux entreprises et aux ménages. Ainsi, 2011 km de fibres optiques sont en cours de déploiement permettant le raccordement de 67 communes du Bénin aux câbles sous-marins SAT3 et ACE. Cette première phase du projet s'achèvera au cours du premier trimestre 2018 ;

- le projet d'Extension de la couverture en réseaux de téléphonie mobile des zones en déficit d'accès (Zones Blanches);

- le projet de la Télévision numérique terrestre (TNT) qui permettra à notre pays dans quelques mois d'offrir à toute la population la télévision numérique en mode terrestre principalement et pour les zones banches en réception satellitaire ;
- la transformation numérique de notre administration à travers le programme de renforcement des structures de Gouvernance au Bénin permettra d'avoir une administration plus efficace et apprécié de la population. Ce projet permettra l'interconnexion des structures de l'Etat, la construction d'un data center national pour un stockage sécurisé des données de l'Etat et des autres acteurs, une optimisation des ressources de l'Etat et le renforcement de la célérité des procédures administratives ;
- etc.

Mesdames et Messieurs,

Les résultats attendus de ces projets mis en oeuvre ne sauraient être palpables sans un cadre et un environnement juridique propice au développement et à l'émergence d'acteurs efficaces gages d'innovations, d'emplois durables et de croissances économiques. A ce titre, l'adoption depuis juin 2017 d'un Code du Numérique couvrant l'ensemble des aspects du secteur de l'économie numérique apporte une sécurité juridique forte aux entreprises béninoises, aux investisseurs et renforce l'attractivité numérique du Bénin. A travers ce code, diverses questions d'intérêts sont abordées et réglementées :

- les communications électroniques (gouvernance, régulation, concurrence, régimes applicables, service universel ou encore neutralité du net) ;
- les services numériques innovants (e-gouvernement, e-santé, e-éducation ou encore services financiers en ligne et mobiles) ;
- les outils électroniques (signature et certification électronique, preuve électronique, archivage ou encore horodatage) ;
- la protection des données à caractère personnel (traitement, régimes applicables, formalités et conditions préalables au traitement ou encore droit des personnes à l'égard de leurs données personnelles) ;
- le commerce électronique (publicité par voie électronique, conclusion de contrats électroniques, obligation d'information, droit de rétractation, responsabilité des prestataires de service ou encore protection des consommateurs) ;
- la cybersécurité et cybercriminalité (accès illégal et atteinte aux données et aux systèmes d'information, vol de données, piratage en ligne, mise/maintien en ligne de contenus abusifs, pédopornographie, escroqueries et délits connexes, infractions aux biens, identification des utilisateurs, responsabilité des fournisseurs de services en ligne ou encore cryptologie).

Aussi, ayant comme ambition de faire de notre pays la plateforme numérique de l'Afrique de l'Ouest, le Gouvernement du Bénin a décidé la création d'une Cité Internationale de l'Innovation et du Savoir « Sèmè City » afin de promouvoir l'émergence en Afrique de centres d'excellence pour la recherche et l'innovation favorables à l'éclosion de Startup et de jeunes entrepreneurs.

Mesdames et Messieurs,

Cependant, des efforts restent encore à faire pour rendre les e-services disponibles à tous les citoyens sans exclusion. Il faut mobiliser des ressources financières et techniques en vue d'atteindre nos objectifs. Nous profitons de cette occasion pour solliciter l'appui (financier, technique ou en renforcement de capacités des jeunes) des institutions des Nations Unies (UIT, UNESCO, CNUCED, etc.) pour nous accompagner à relever ces défis.

Enfin, je nourris l'espoir que les conclusions qui seront issues de ce forum permettront à nos pays de faire un saut qualitatif de progrès dans le secteur des TIC afin de contribuer au bien-être des populations pour un développement durable.
Pour finir, le Bénin tient à exprimer sa gratitude à toutes les personnes qui ont participé d'une manière ou d'une autre, à l'organisation du présent forum. Cette gratitude s'adresse notamment au Secrétaire Général de l'UIT, Son Excellence Houlin Zhao, aux responsables des institutions partenaires et aux différentes ONG qui nous accompagnent dans la lutte contre l'analphabétisme des temps modernes que constitue la non maîtrise du numérique.

- Vive la Coopération Internationale
- Vive l'UIT

Je vous remercie.

Russian Federation

H.E. Mr. Rashid Ismailov
Deputy Minister
Ministry of Telecom and Mass Communication of the Russian Federation

Ваши превосходительства!
Уважаемые коллеги и гости!

Темой нашего форума является «Использование ИКТ в создании обществ информации и знаний для достижения целей устойчивого развития».

Общепризнано, что ИКТ имеют решающее значение для обеспечения всех трех компонентов устойчивого развития: экономического, социального и экологического. Матрица ВВУИО/ЦУР наглядно демонстрирует тесную взаимосвязь направлений деятельности ВВУИО целей и задач устойчивого развития.

В эпоху 4-й промышленной революции дальнейшее развитие информационного общества и обществ знаний, тесно взаимосвязанное с осуществлением ЦУР, опирается на развитие и внедрение цифровой экономики. Цифровая экономика становится важной движущей силой глобального экономического роста и играет значительную роль в ускорении темпов экономического развития, повышении производительности существующих отраслей экономики, формировании новых рынков и достижении устойчивого роста.

Говоря сегодня о преодолении «цифрового разрыва» мы должны четко разделять базовые (физические/технические) возможности доступа населения к широкополосной связи, и регуляторные (политические) действия, создающие необходимую среду, как для развития инфраструктуры доступа, так и для развития цифровых услуг и информационных возможностей населения и бизнеса.

Внедрение широкополосных технологий является ключевым элементом обеспечение качественного, безопасного и доступного в ценовом отношении доступа к информации и знаниям, что было еще раз подчёркнуто на встрече Комиссии ООН по широкополосной связи в Давосе во время Всемирного экономического Форума в январе этого года.

Российская Федерация является активным участником этих глобальных процессов, и мы накопили значительный опыт в данной сфере.

Мы добились впечатляющих показателей по уровню проникновения ШПД. На конец 2017 года Интернетом пользовалось 87 млн человек населения, уровень проникновения Интернета превышает 76,3%, что является одним из ключевых аспектов для успешного развития цифровой экономики. Аудитория мобильного Интернета увеличилась до 56% (67 млн человек), на начало 2018 года доступом в Интернет со смартфонов пользовались больше половины взрослого населения России — 51,5%. Россия занимает второе место в мире по ценовой доступности услуг на мобильную связь и мобильный Интернет, и десятое место в мире на фиксированный Интернет. Это стало возможным благодаря высокой степени конкуренции в телекоммуникационном секторе.

Кроме того, в России продолжает семимильными шагами развиваться электронное правительство. В 2017 году количество зарегистрированных пользователей единого портала государственных услуг увеличилось на 25 млн и составило 65 млн человек. Всего с 2012 года количество пользователей портала увеличилось почти в 20 раз. Портал госуслуг активно расширяется: в прошлом году появилось 207 новых федеральных услуг, и сейчас пользователям доступно 968 федеральных госуслуг. Всего в 2017 году через портал было оказано 1,3 млрд госуслуг, что в три раза больше, чем годом ранее.

Объем платежей, совершенных пользователями портала госуслуг, в 2017 году вырос почти в четыре раза и составил 30,3 млрд рублей. В 2016 году этот показатель равнялся 8,1 млрд рублей.

При этом немаловажным остается аспект размера нашей страны. Несмотря на оптимистичные показатели по покрытию 3G, проникновение LTE на уровне 70% и высокие позиции нашей страны в международных рейтингах развития ИКТ, нам еще очень многое предстоит сделать. Мы понимаем, что развитие инфраструктуры – это та база, на которой будет развиваться цифровая экономика. В России ведётся активная работа над стратегическими отраслевыми проектами. Более 200 тысяч километров волоконно-оптических линий связи будут проложены в России для подключения всех населённых пунктов с числом жителей от 250 до 500 человек. Уже подключено около
5,7 тысяч таких населенных пунктов и проложено почти 46 тысяч км волоконно-оптических линий связи.

Говоря о политических решениях, я хотел бы отметить, что они должны быть долгосрочного, стратегического характера с продуманными направлениями развития, давая ориентиры всем участникам процесса преодоления цифрового разрыва.

В качестве такого примера я хотел бы отметить программу «Цифровая экономика Российской Федерации», утвержденную в июле 2017 года. В качестве ключевых вопросов развития цифровой экономики мы видим вопросы создания благоприятного инвестиционного климата, снижения административных барьеров, поощрения малого и среднего бизнеса, развития существующей инфраструктуры широкополосного доступа в Интернет и электронной торговли.

Реализация программы «Цифровая экономика Российской Федерации» позволит создать благоприятные условия для развития общества знаний, повысить осведомленность населения о новых возможностях; совершенствовать систему обучения и переобучения навыкам владения ИКТ, тем самым снизить риски, при которых только часть населения имеет доступ к современным технологиям, умеет их использовать и получает от этого преимущества. Считаем, что главную роль в развитии общества знаний призваны сыграть образование, переподготовка и реклама нового "информационного" образа жизни, позволяющие вовлекать все более широкие круги населения в мир ИКТ.

Таким образом, именно, принятые решения (утвержденные государственные программы) с четко поставленными требованиями, позволили государству совместно с операторами решать задачу охвата населения широкополосным доступом к информации и услугам и сделать связь финансово доступной для всех граждан нашей страны.

Хочу также особо подчеркнуть, что Интернет является базисным элементом цифровой экономики. Считаем, что для его успешного, надёжного и безопасного использования необходимы международные нормы и правила, регулирующие отношения в области Интернет-управления. Россия полагает, что такие нормы должны вырабатываться под эгидой институтов ООН.

В настоящее время отдельные аспекты регулирования разделены между различными организациями и их усилия в значительной степени не скоординированы, в то время как комплексность регулирования требует тесного международного сотрудничества при ведущей роли государств.

Все большее количество стран признает, что угрозы безопасности в сфере ИКТ вызывают риск подрыва коллективной способности использовать Интернет для наращивания экономического роста и развития во всем мире.

В цифровой среде, как и в других сферах, на государства возложена особая ответственность - обеспечивать безопасность, стабильность и экономические связи с другими странами.

Глобальная экосистема информационных технологий сегодня находится не в равновесном состоянии. Все ключевые решения, ключевые программы, как правило, приходят из одной страны. Это проблема не только для России, но и для всего мира. Мы против таких монополий, многие коллеги из разных стран солидарны с нами. Мы хотим равновесия. Одна рыночная ниша не должна контролироваться одной страной или одной компанией. Нельзя позволять, кому бы то ни было контролировать 100% рынка. Нужна справедливая конкуренция, нужны возможности для наших новых компаний, нужно дать им определенное место на глобальном рынке.

Россия предлагает объединить усилия по совместной подготовке универсальной конвенции ООН по безопасному функционированию и развитию сети Интернет, чтобы разработать международно-правовую основу регулирования Всемирной паутины.

Желаю всем участникам успехов, новых конструктивных решений и идей!

Благодарю за внимание.

ENGLISH VERSION:

POLICY STATEMENT
By H.E. Mr. Rashid Ismailov, Deputy Minister of Telecom and Mass Communications of the Russian Federation at high-level policy session of the WSIS Forum
(20 March 2018, Geneva, Switzerland)

Excellences,
Distinguished colleagues and guests,

Our Forum topic is "Leveraging ICTs to Build Information and Knowledge Societies for Achieving the Sustainable Development Goals (SDGs)".

It is generally recognized that the ICTs have a crucial importance for ensuring all three segments of the sustainable development, i.e. economic, social and environmental segments. The WSIS-SDG matrix clearly demonstrates close relations between WSIS Action lines and sustainable development goals and targets.

In the era of 4th industrial revolution, further development of information and knowledge societies that closely associated with the achievement of SDGs, relies on the development and introduction of the Digital Economy. The Digital Economy is becoming an important engine for growth in the world economy and plays a significant role in boosting economic development rates, increasing productivity of existing industries, establishing new markets and achieving sustainable growth.

Speaking today about bridging the digital divide, we should clearly distinguish between basic (physical/technical) opportunities for the population to have access to the broadband and regulatory (policy) activities that establish relevant environment for the development of both broadband access infrastructure and digital services and information opportunities for the population and businesses.

Introduction of the broadband technologies is a key element for high-quality, secure and affordable access to information and knowledge as was highlighted at the UN Broadband Commission meeting in Davos during World Economic Forum in January this year.

Russian Federation is an active participant in such global processes and we have accumulated a considerable experience in this field.

We have achieved impressive performance indicators with regard to the broadband penetration. At the end of 2017, the number of Internet users amounted to 87 million people, with Internet penetration level exceeding 76.3% being one of the key enablers for successful development of the Digital Economy. Mobile Internet audience has increased up to 56% (67 million people), and at the beginning of 2018 more than a half of the adult population of Russia, i.e. 51.5%, had Internet access via smartphones.

Russia ranks second in the world in the affordability of mobile services and mobile Internet, and tenth in fixed Internet. This is thanks to a high level of competition in the telecommunication sector.

In addition, Russian e-government continues making tremendous progress. In 2017, the number of registered users of the Unified Public Services Portal increased by 25 million and amounted to 65 million people. Since 2012, the total amount of the portal users has increased almost twenty-fold. The Public Services Portal is actively expanding: last year 207 new federal services were established and now users have access to 968 federal services. In 2017, 1.3 billion public services were provided through the portal in total which is three times more than a year ago.

In 2017, amount of payments made by the portal users through the public services has increased nearly four-fold and amounted to 30.3 billion rubles. In 2016, this amount was 8.1 billion rubles.

At the same time, vast territory of our country remains important issue. In spite of optimistic indicators of 3G coverage, 70% of LTE penetration and high places of our country in the international ranks of ICT development, much more needs to be done. We understand that the development of the infrastructure is the basis on which the digital economy will be developed. Russia is actively working on strategic industry projects. More than 200 thousand kilometres of fibre-optic communication links shall be laid in Russia to connect all settlements with population from 250 to 500 residents. Approximately 5.7 thousands of such settlements have already been connected and nearly 46 thousand kilometres of fibre-optic links have been laid.

Speaking about policy decisions, I would like to note that they shall be of long-term and strategic character with well thought-out areas of development, giving reference points to all participants of digital gap bridging process.

In this context, I would like to note that the "Digital Economy of the Russian Federation" Programme was approved in July 2017. As key issues of digital economy development we see establishment of favorable investment climate, reducing administrative barriers, encouraging small and medium business, development of existing infrastructure for broadband Internet access and e-trade.

Implementation of "Digital Economy of the Russian Federation" Programme will allow establishing favorable conditions for the development of knowledge society, increasing public awareness of new opportunities; improving system for training and updating ICT skills, thereby decreasing risks when only a part of population has access to modern technologies, can use them and enjoy advantages from ICTs. We believe that educating, updating ICT skills and promoting new "information" way of life are intended to play the key role in the development of knowledge society, involving ever more population into the ICT world.

World Summit on Information Society

Thus, it is just adopted decisions (approved public programmes) with clearly stated requirements that have allowed government jointly with operators to solve the task of covering population with broadband access to the information and services and making communications affordable for all citizens of our country.

I'd like also highlight that Internet is a basic element of the digital economy. We believe that for its successful, reliable and secure usage we need international frameworks regulating relations in the field of Internet governance. Russia supposes that such frameworks shall be developed under the auspice of the UN institutions.

Nowadays separate regulation aspects are divided between various organizations and their efforts to a large extent are not coordinated, while regulation complexity requires close international cooperation under the leading role of states.

More and more countries recognize that threats to ICT security cause risk for disruption of collective ability to use Internet for raising economic growth rates and global development.

In the digital environment, as in other spheres, states are given specific responsibility to ensure safety, stability and economic relations with other countries.

Currently, global ecosystem of information technologies is not in equilibrium state. All key decisions, key programmes generally originate from one country. This is a problem not only for Russia, but for the entire world. We are against such monopoly, and many colleagues from different countries stand in solidarity with us. We want to have equilibrium. Any market place shall not be controlled by one country or one company. It shall not be allowed that anyone controls 100% of market. There is a need in fair competition, opportunities for our new companies, they should be given a certain place in global market.

Russia proposes to join efforts in cooperative preparation of the UN universal convention on the secure functioning and development of the Internet in order to develop an international legal framework for the regulation of the World Wide Web.

I wish all the participants the success, new constructive decisions and ideas!

Thank you for your attention.

ESOA

Mrs. Aarti Holla

Secretary General

What can governments do to bridge the digital divide within their countries?

- The most important thing that governments can do is to foster the use of all technologies across a level playing field and encourage cooperation between different technologies & operators. Every country is different and has important differences within it - geographical, topographical, socio-economic, demographic and others. It is largely because of these differences that digital divides exist.
Experts forecast that by 2020 4G/LTE will cover 63% of the world's population but only 37% of the landmass - that means millions of people without connectivity and that is a big problem.

- Big problems require many solutions: fixed networks, mobile networks, satellite and WiFi! Satellites match the diversity we see within countries: they are unique in being blind to national borders; blind to political regimes; they don't discriminate between rich and poor or between urban and rural citizens. They are an invisible solution that makes a huge and immediate difference to people's lives because they naturally and cost-effectively cover the whole territory.

- There are hundreds of examples of satellite connectivity contributing to the achievement of Sustainable Development Goals such as quality education, good health, reduced inequalities and gender equality. But even if satellite is the only solution that can reach certain areas, satellite services often don't benefit those whose lives they could change because of high import duties or unfavorable licensing regimes or because universal service funding is not made available.

- So governments need to ensure they are not taking a "one-size-fits all" approach but that they are creating an environment that enables all technologies and operators to contribute and cooperate. This inclusive approach on both government and industrial level is what is needed if we are to successfully achieve the Sustainable Development Goals.

Digital divide and 5G: from dilemma to opportunity?

- We cannot deny that many governments on all world continents are hugely focused on 5G right now. And it is understandable given that we are living in an era where the pace of technological advancement is so fast and it seems as if everyone on the planet has a mobile phone! Unfortunately that is a reality that we can only wish for!

- The harsh reality is that enormous divides do exist and therefore policy makers must guard against seeing 5G and Digital Divides as competing objectives within digital portfolios. We have to be very careful that it does not become just another long-term issue within development portfolios but that it remains an absolute priority of digital policy as it should be and that's where we need to see concrete supporting actions within regulatory frameworks, investment policies and spectrum decisions.

- If anything 5G should make the subject of Digital Divides even more pressing because it risks turning the digital divide into a digital chasm which society today cannot afford. Development issues are priorities - this event with so many eminent participants is testimony to that - but it is also true that development issues often come with connotations of being potentially unachievable, stretch targets when they don't have to be. This is the moment when the common goals that we are all talking about need to be more than words but really translate into concrete and consistent actions across different policy areas.

- We have an opportunity to make a difference on bridging digital divides now. All technologies, mobile, satellite, WiFi are evolving at a tremendous pace and satellite is one that can make a difference within weeks. So it would be a mistake to see this as a dilemma of choice between either achieving 5G or bridging Digital Divides - there is an opportunity to positively impact peoples' lives now if we change mind-sets at all levels, stop focusing on specific technologies but stay focused on meeting the real needs of world citizens.

Session Three: Bridging Digital Divides

High level Track Facilitator: Ms. Crystal Rugege, Carnegie Mellon University Africa, Rwanda

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator UNDESA -** Mr. Vincenzo Aquaro, Chief E-Government Branch, Division for Public Administration and Development Management
3. **Brazil–** H.E. Mr. Andre Müller Borges, Secretary of Telecommunications, Ministry of Science, Technology, Innovation and Communication
4. **Ghana** – H.E. Mrs. Ursula Owusu-Ekuful, Minister, Ministry of Communications
5. **Senegal** – H.E. Mr. Abdoulaye Balde, Minister, Ministry of Communication, Telecommunications, Posts and Digital Economy
6. **Poland** – Mr. Marcin Cichy, President of the Office of Electronic Communications, Office of Electronic Communications (UKE)
7. **SAMENA Telecommunications Council** - Mr. Bocar A. Ba, Chief Executive Officer
8. **ChunriChoupaal–** Ms. Iffat Gill, Founder and CEO (Netherlands)
9. **TEMA Telecom Equipment Manufacturers Association of India/CMAI Association of India**– Prof. NK Goyal, Chairman/President

1. Introduction

This session examined the challenges and opportunities in achieving sustainable digital inclusion. With multi-stakeholder perspectives from ministers to regulators to telecom operators and civil society practitioners, there was a rich discussion that identified several common issues across the various geographic regions from Africa to Europe to Asia. Four major themes emerged in the discussion: access, affordability, viability and collaboration. There was a prevailing sentiment among panelists that there are key factors that can either narrow or widen the digital divide that must be addressed: infrastructure, political will, readiness of society in terms of digital literacy and affordability.

2. Vision

There was a common vision shared by all stakeholders, that digital inclusion is imperative to build a knowledge economy, but it will take the village to bring that vision to fruition. We can go further faster if we commit to a common agenda, align our priorities and pool our resources.

3. Fresh Priorities

- Reaching the farthest first, prioritizing the most underserved communities since in many developing countries they still represent that largest percentage of the population
- Access alone is not enough. Digital literacy is fundamental for finding a job, and remaining employable, competitive and productive.

4. Emerging trends

- Encouraging infrastructure sharing amongst telecom companies, government encouraging companies to share existing infrastructure, and lease infrastructure where they don't have access
- More strategic use of universal funds to bridge the digital divide for communities and individuals with limited finances.

5. Opportunities

- 5G has the ability to provide last mile connection and could play a significant role in closing the digital divide.
- Telecom operators need smart collaboration with regulators that will incentivize investment; policies also need to be put in place to stimulate demand and align priorities.
- Conversations are happening between public and private sector, but we also need private sector talking to each other, to optimize the CAPEX that can sustain the entire society.
- Priority sectors that can contribute to the digital economy were highlighted including agriculture, heath, commerce, education, information, and creative/cultural sector.
- Upgrading digital skills of women will ensure innovation and growth, developing a generation of technology creators not just consumers

6. Key Challenges

- 5G needs policies, standards and regulations in place to facilitate effective implementation.
- In order to invest in 5G infrastructure, mobile operators need to engage with governments to come up with viable business models to reduce the CAPEX.
-

- Government needs to stimulate the demand and education the population so they can make good use of the ICT.
- As we move to a digital society and a data driven economy, we need to have policies ready for cross border data flows to address issues of data privacy.
- On average globally, the coverage of broadband access by country is still insufficient and not in line with SDGs
- Lack of safe spaces and unconscious bias hindering women from joining digital economy

7. Link with the WSIS Action Lines and Sustainable Development Goals (SDGs)

- Ghana aims to connect the entire country by 2020. (Action Lines 1 & 2)
- Senegal aims to achieve digital literacy for all users by 2025. (Action Line 1 & 4)
- Senegal is currently providing all public universities with free high speed Internet. (Action Lines 1, 2 & 4)
- Poland has launched digital strategy with over 1 billion Euros dedicated to next generation networks, with the intention to connect 1.8 billion additional households by 2020, deploy 5G in one city 2020 and all transport hubs by 2025. (Action Line 1, 2 & 6)
- Code to Change has a program for professional women to upgrade technology skills in a safe learning environment (Action Line 4)

8. Case Examples

- Ghana's universal access fund in partnership with telecom companies to extend connectivity to underserved communities.
- Senegal's "Digital Senegal 2025 Strategy", already making significant strides providing free high-speed Internet access to all public universities.
- Senegal's legislative and regulatory reform on the simplification of the provision of Internet services, reducing the number of telecom providers by 50%.
- Brazil's program to incentivize private sector by providing land, technical facilities and tax exemption to companies that connect rural communities.

9. Road ahead

- 5G could be revolutionary, but it requires massive investment, engagement with regulators and mobile operators, and viable business models to reduce the CAPEX
- There is a still a great need to align priorities among stakeholders in practice and not just in theory, beyond what is agreed in high-level discussions.
- Private sector is ready to investment, and governments are ready to engage. However, it will require ongoing dialogue to ensure the right incentives are in place while maintaining a human-centered approach to bridging the digital divide.
- Looking towards the SDGs, WSIS provides a framework to set objectives and measurable targets to keep all stakeholders on track in creating an inclusive knowledge society and thriving digital economy.

Ghana

H.E. Mrs. Ursula Owusu-Ekuful

Minister

Ministry of Communications

Thank you for the opportunity. I bring you warm greetings from Ghana, where my President, His Excellency Nana Addo Dankwa Akufo Addo has tasked me, to help close the digital divide as the Government strives to digitalize the economy of Ghana.

The government of Ghana has embarked on a mission dubbed the "**Digital Ghana Agenda**". As part of the digital Ghana Agenda, the Government is undertaking a number of initiatives to improve accessibility to Public Services irrespective of geographical location.

These initiatives are: **Paperless Port System, National Digital Property Addressing System**, **e-Certificate for Company Registration, Smart Workplace, e-Immigration System, e-Justice System, e-Parliament System, e-Procurement System** among others**.**

Significant benefits being derived from the implementation of these initiatives are cost savings for the citizens, reduction of risks as a result of travelling long distances to access services, time spent in accessing services and reduction in corruption.

The Government of Ghana has not lost track of the need to aggressively bridge the digital divide and to digitalize the economy.

There are three (3) areas we are considering to close the digital divide. These are infrastructure provision, access and affordability.

Mindful of this, various efforts have been made to revamp the ICT/Telecommunication environment. To address the broadband deficit of the country, the Government of Ghana has laid inland Fibre from the south through the middle belt to the northern part of the country and connecting both Togo and Burkina Faso as part of the ITU's Connect the City Project.

Fibre has also been laid at the eastern part of the country to provide high-speed internet broadband connectivity to more than 120 rural communities along that route. There are plans underway to also connect the western part of the country with fibre.

Government's efforts at providing broadband connectivity are being complemented by private investments from telecom companies to increase broadband capacity and accessibility to many communities in Ghana.

As a result of the favourable enabling environment, there are five (5) submarine fibre optic cable companies in Ghana all geared towards increasing the country's bandwidth.

Financial inclusion is one important divide we are closing quickly using technology to serve the unbanked. According to Ghana's Central Bank, Mobile Money is gradually becoming a major means of payment for the unbanked and the underserved in Ghana. The rapid growth in Mobile Money usage in Ghana is due to a combination of the ***increasing usage and penetration of mobile phones in the rural areas and expanding communications coverage***.

Currently:

- The total number of mobile connections in Ghana stands at 36.7 million with a penetration rate of 127.87% for a population of just about 28.7 million
- Active internet users excluding ISPs stand at 23.9 million with a penetration rate of 83.27%

These statistics are mainly dominated by the youth because Ghana has a youthful population. These youth have a high craving for the use of the internet to undertake research, follow modern global trends in ICT, and access social media.

One of the crucial factors that affect digital divide is the high cost of service provision to less privileged persons especially in developing countries.There are wide disparities among the haves and have nots in my Country especially in the acquisition of ICT tools and internet connectivity.

The Government has created an Enabling environment which has propelled fair competition in the ICT/telecommunication Industry. These Service providers have competitively developed data packages at relatively affordable prices for consumers.

Additionally, a number of interventions have been made under our universal access fund to bridge the digital divide. To date, two hundred and fourteen (214) Community Information Centers (CICs) have been

constructed to provide community development information, connectivity and business services to the local communities at minimal cost.

Connectivity has also been extended to Six Hundred and Thirty-Nine (639) institutions covering Senior High Schools, Vocational Institutions, Schools for the Blind and Deaf and Research Centers.

To further boost accessibility, Government has embarked on various projects as follows: the Rural Telephony Project, Rural Pay Phone Project, Easy Business Centre Project, Library Connectivity Project, Post Office Connectivity Project, ICT for Sustainable Fishing Project and the Digital for Inclusion (D4I) programme with the objective of creating smart communities.

Conclusion

To conclude, Ghana is on a roll, and we are not stopping until that gap is closed completely. The Government is determined to use technology to aid the growth of the country and bridging the digital gap is an important check box we intend ticking as soon as possible as we move towards attainment of the Sustainable Development Goals(SDGs).

Thank You.

Senegal

H.E. Mr. Abdoulaye Balde
Minister
Ministry of Communication, Telecommunications, Posts and Digital Economy

***Thème :* « *Réduire les fractures numériques* »**

Question 1 :

Monsieur le Ministre, le Sénégal dispose depuis octobre 2016, d'une stratégie **« Sénégal Numérique 2025 »** largement partagée par l'ensemble des acteurs.

Dans ce document national de déclinaison de la politique relative au développement de l'Economie Numérique, quelles sont les principales initiatives en faveur de la réduction des fractures numériques ?

Eléments de réponse 1 :

- **Monsieur Président de la Conférence.**
- **Monsieur le Secrétaire Général de l'UIT**
- **Monsieur le Modérateur/Facilitateur**
- **Mesdames, Messieurs les Ministres,**

- **Mesdames, Messieurs les Ambassadeurs,**
- **Mesdames, Messieurs les Directeurs Généraux.**
- **Mesdames, Messieurs les délégués en vos rangs et grades,**

Il m'est particulièrement agréable, au nom du peuple et du gouvernement de la République du Sénégal de participer au Forum 2018 du Sommet Mondial sur la Société de l'Information, tribune de premier plan pour débattre du rôle des les Technologies de l'Information et de la Communication (TIC) en tant qu'outil de mise en œuvre des Objectifs de Développement Durable de l'Agenda 2030 (ODD).

Monsieur le Modérateur,

Pour répondre à votre première question, je voudrais tout d'abord souligner qu'à travers le Plan Sénégal Emergent (PSE), document national de référence de la politique socio-économique, notre pays a fixé un nouveau cap en misant sur la transformation structurelle de son économie pour atteindre une croissance forte, soutenue et durable.

Dans le Plan Sénégal Emergent, faudrait-il le rappeler, le secteur du Numérique a été identifié comme un des fondements à l'émergence.

En adoptant la stratégie « Sénégal Numérique 2025 », notre pays a fait un pas vers la prise en charge politique de l'opportunité d'accélération du développement et d'intégration qu'offrent les TIC dans un monde de l'information et de l'économie de la connaissance.

Le Plan Sénégal Emergent et sa mise en œuvre créent un environnement et un cadre indispensables au développement du Numérique.

La stratégie « Sénégal Numérique 2025 » a pour vision:

«**En 2025, le numérique pour tous et pour tous les usages, avec un secteur privé dynamique et innovant dans un écosystème performant».**

Elle est déclinée en trois (3) prérequis et quatre (4) axes stratégiques d'intervention prioritaires, avec un plan d'action de 28 réformes et 69 projets pour un cout total de 2,5 milliards d'Euros.

A cet égard, il me plait de souligner que dans ce portefeuille de projets et de réformes, d'importantes mesures sont été déjà prises et dont l'objectif général est de contribuer à la réduction des fractures numériques.

- **Au niveau législatif et réglementaire**, des réformes majeures sont été entreprises, notamment à travers la simplification des conditions de fourniture de services Internet.
  En effet le régime de licence de Fournisseurs d'Accès Internet (FAI) a été remplacé par une simple autorisation, et le Gouvernement a octroyé des autorisations à trois FAI, en sus des trois opérateurs de Télécommunications disposant au moins de la technologie 3G.
  Mieux, le principal opérateur a déployé la 4G depuis plus d'un an.

- **Pour ce qui est des infrastructures de Télécommunications/TIC**, nous avons mis en place un plan national haut et très haut débit en mars 2018, qui à partir d'un diagnostic exhaustif, se propose de renforcer les 6 000 km de fibre optique et les technologies mobiles haut débit (3G, 4G) sur tout le territoire national. Dans la même lancée, la stratégie d'accès/service universel est en cours

d'actualisation. Il convient de rappeler que le Sénégal dispose d'une politique de service universel depuis 2004 et a octroyé en 2007 une licence régionale de service universel dans la région de Matam au nord du pays, et ce pour favoriser l'accès aux services de télécommunications en zone rurale.

- Aussi, le Sénégal a t-il inauguré son Point d'Echange Internet (SENIX) en Aout 2017, en vue de faciliter l'accès des populations aux ressources numériques. Nous envisageons d'ailleurs de positionner le Sénégal pour abriter un point d'échange régional.
- Enfin, pour renforcer le développement des infrastructures de Télécommunications/TIC, le gouvernement a démarré, en partenariat avec la Banque Africaine de Développement, le projet de Parc des Technologies Numériques (PTN), dans le Pôle urbain de Diamniadio à 20 km de Dakar.

- **Au demeurant, en ce qui concerne l'accès à l'information et au savoir**, le projet des Centres Multimédia Communautaires (CMC) initialement lancé en collaboration avec l'UNESCO et la Coopération Suisse, a permis aujourd'hui l'installation de 40centres fonctionnelsdans les zones rurales et périurbaines pauvres et défavorisées du pays.
- **Dans toutes les universités publiques**, le gouvernement du Sénégal a mis à disposition une bande passante Internet très haut-débit pour permettre aux étudiants de bénéficier d'un accès Internet permanent et gratuit.
- **Les efforts du Gouvernement du Sénégal** pour renforcer la dimension genre dans l'inclusion numérique ont-ils été déjà confirmés en 2015 par l'UIT, qui nous a décerné le Prix Gem-Tech.
- **Sur la diffusion du numérique dans les secteurs économiques**, le Gouvernement a identifié six (6) secteurs prioritaires ayant un fort potentiel de croissance, tels que l'agriculture, la santé, le commerce, l'éducation et la formation, les services publics et les industries culturelles.

Monsieur le Modérateur,

Aujourd'hui, le Sénégal est conscient qu'il est de notre devoir non seulement de fournir un accès large bande à des services TIC abordables pour tous, mais également de mettre les TIC au service d'autres secteurs socio-économiques, en vue de contribuer fortement à l'atteinte des objectifs de développement durable de l'agenda 2030 de la Communauté internationale.

Dans ce processus continu d'édification d'une Société de l'Information inclusive au Sénégal, en Afrique et dans le monde, il convient de noter que la sécurité dans le cyberespace est érigée en priorité. En effet nous avons adopté, dans une démarche participative impliquant l'ensemble des acteurs, la stratégie nationale de cybersécurité (SNC2022) dont l'ambition est « **En 2022 au Sénégal, un cyberespace de confiance, sécurisé et résilient pour tous ».**

Question 2

En termes de planification à l'horizon 2025, quels sont, Monsieur le Ministre, les résultats escomptés par le Sénégal ?

Eléments de réponse 2

Monsieur le Modérateur,

Pour aborder la deuxième question, permettez-moi de saluer la forte volonté politique des plus hautes autorités du Sénégal en faveur d'une mise en œuvre efficace et efficiente du plan d'actions de la stratégie « Sénégal Numérique 2025 ».

En effet, le pilotage stratégique de la mise en œuvre de la SN2025estassuré par un Comité Interministériel qui est présidé par le Premier Ministre, avec un Comité technique présidé par le Ministre en charge du Numérique, et comprenant les représentants du secteur public, du secteur privé, de la société civile et des universités.

De façon spécifique, aussi bien sur l'accès, l'usage et la formation des ressources humaines à l'utilisation des TIC à l'horizon 2025 au Sénégal,

- le taux de pénétration de l'accès à Internet pour les ménages devra passer de 10% à 50%;
- des équipements informatiques et points d'accès Internet seront disponibles pour tous les élèves et étudiants;
- les établissements scolaires seront connectés et équipés à Internet avec un taux de 100% ;
- le taux de bancarisation électronique de la population devra passer de 12% à 50%.

Globalement,

- l'ambition de notre pays, à travers la stratégie «Sénégal numérique 2025 » au plan économique, est de redonner un nouveau souffle au secteur, en apportant de nouveaux relais et sources de croissance aux acteurs, afin de porter la contribution du numérique au PIB à 10% à l'horizon 2025.
- Il s'agira aussi de tirer parti du fort potentiel du numérique en termes de création d'emplois, avec un objectif de plus de 35 000 emplois directs dans le secteur du numérique à l'horizon 2025 ;
- les progrès attendus à l'horizon 2025, sont mesurés essentiellement à travers les classements internationaux à partir des indices ci-après:

  - ✓ d'une part, pour le « Network Readiness Index » (NRI) du Forum Economique Mondial, l'objectif visé est d'atteindre au moins la 70ème place dans le monde, et le 4ème rang en Afrique en 2025.

- ✓ d'autre part, concernant l'Indice de Développement des TIC (IDI) de l'Union Internationale de Télécommunications, l'objectif visé est d'atteindre au moins la 90ème place mondiale et le 4ème rang en Afrique en 2025.

Par ailleurs, le Sénégal, dans sa politique d'ouverture et d'intégration africaine, compte jouer un rôle majeur pour l'établissement de points d'échanges Internet sous régionaux et régionaux, en vue d'optimiser les trafics entre pays, et favoriser ainsi la disponibilité et l'accessibilité aux infrastructures et services numériques qui à terme, vont contribuer à la réduction des fractures numériques à l'échelle du Continent.

Pour terminer mon propos, je voudrais attirer l'attention de l'assistance, sur la nécessité de renforcer la coopération entre toutes les parties prenantes pour construire une société de l'information et de la connaissance durable pour tous, conformément aux grandes orientations formulées dans la ligne d'action 11 du SMSI.

Le Gouvernement du Sénégal, par ma voix, voudrait enfin remercier l'Union Internationale des Télécommunications et l'ensemble de ses partenaires, pour le soutien constant au secteur du numérique, mais aussi pour cette belle organisation du Forum 2018 du SMSI.

Nos remerciements vont également au pays hôte la **Suisse**, pour la qualité de l'accueil et les conditions optimales de notre séjour.

Je souhaite plein succès au Forum 2018 du SMSI.
Merci à toutes et à tous de votre très aimable attention.

Monsieur Abdoulaye BALDE, Ministre en
Charge de l'Economie Numérique (Sénégal).

SAMENA Telecommunications Council

Mr. Bocar A. Ba

Chief Executive

Your Excellences! Dear colleagues and participants!

It is an honor and a pleasure to be here today.

We are living in an era, which has created enormous opportunity and potential for economic- and socio-economic development and growth, for wealth-creation and prosperity and human development. Yet, digital divides persist and inequalities continue to affect progress towards the economic and social development of different regions, countries, households and individuals.

Last year's WSIS High Level Track on Digital Divides recognized that the digital divide is a problem not only of access to technology but also a serious social issue that has several interconnections with poverty and social deprivation. Participants concluded that a holistic approach needed to be adopted to overcome the digital divide that is based on infrastructure development, good governance, capacity building and strong local communities that can support the ecosystem. So, how can such a holistic approach be adopted? SAMENA has identified three key principles, that it advocates to advance the bridging of the digital divides that persist in its region.

Firstly, ensuring that the basic requirements for building digital economies are in place, such as Digital Economic Programmes or Agendas. From a policy perspective, SAMENA countries, especially in the GCC region, are largely on track, having adopted Digital Economic Visions or Agendas with horizons up to 2030, that set out key objectives and steps to be taken to further digital transformation toward building Digital Economies. Moreover, efforts are being made in reviewing current legacy regulatory frameworks, including on topics such as net neutrality, market definition, competition (also from Internet platforms), national broadband networks, and consumer and data protection.

Secondly, understanding and redefining the role of telecom operators in creating knowledge societies and meeting SDG requirements is key to overcoming digital divides. The Private Sector can assume a key role in closing the Digital Divide with regards to all identified areas. It already takes a prominent role in providing both content and services as well as the infrastructure that delivers the content and services. It is therefore key to ensure that the private sector, in particular telecoms operators, are sufficiently incentivized to make clear investment commitments into appropriate infrastructure to enable advanced Digital Services provision.

Appropriate enablers have to be in place. For example, to take advantage of emerging technologies such as 5G, AI and big Data, operators need to be able to "cloudify" and virtualize and build carrier clouds, which includes the storing and processing of personal data outside the home country. While data protection is of utmost importance and while it is also a key driver in the uptake of services, it should not undermine digital transformation efforts of operators through restricting cross-border data flows. Moreover, in order to enable 5G services, the license durations need to be extended to a time span of at least 20-25 years to allow for a better financial planning horizon.

To aid the process of digital transformation of operators, governments need to set hard targets, which reflect aspirations and time-frames and have clear policies to enable operators to make hard financial commitments. This can give operators the right frame of reference for investment to build out the necessary infrastructure. Moreover, in order to achieve the SDGs through the deployment of emerging technologies, a reference framework for Digital Services is needed, which sets out key Digital Services use cases across different verticals alongside their key enablers.

Lastly, accelerating co-operation building efforts between the private and the public sectors is key in bridging digital divides. Given the complexities of the digital ecosystem and its constantly evolving nature, consensus building through multi-stakeholder dialogue and partnerships is therefore fundamental.

Thank you for your attention!

Session Four: Enabling Environment

High level Track Facilitator: Mr. Deepak Maheshwari, Symantec, India

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Mr. Kemal Huseinovic, Chief, Department of Infrastructure, Enabling Environment and E-Applications (IEE)
3. **Bahamas** - H.E. Mr. Elsworth Johnson, Minister of State, Office of the Attorney General and Minister of Legal Affairs
4. **United Kingdom–** H.E. Mr. Julian Braithwaite, Permanent Representative and Ambassador of the UK to the UN and WTO, UK Mission to the UN
5. **Asia-Pacific Telecommunity -** Mr. Masanori Kondo, Deputy Secretary General
6. **IGF/MAG** – Ms. Lynn St. Amour, 2016-2017 Chair of the Internet Governance Forum (IGF) Multistakeholder Advisory Group (MAG)
7. **Microsoft Corporation** — Mr. Paul Mitchell, General Manager, Technology Policy

1. Introduction

The session focused on creating a conducive and enabling environment for use of Information and Communication Technologies (ICT) with the objective of achieving and tracking progress of Sustainable Development Goals (SDGs) by fostering trust and inclusive decision-making.

2. Vision

Identify and mitigate the political, social and economic impediments in design, development and deployment of ICT.

3. Fresh Priorities

There is a need to identify and mitigate the political, social and economic impediments in design, development and deployment of ICT.

Metrics must be developed to track progress on the respective WSIS action lines with respect to the SDGs using real-time and accurate data so that planning and implementation priorities and resourcing can be suitably modified.

4. Emerging Trends

Multistakeholder model of Internet governance is gaining currency not just globally but even within regions and nations.

5. Opportunities

ICT also have the potential to bridge social, economic, physical and spatial inequities.

6. Key Challenges

The following challenges were identified during the session:

Increase in cyber threats both in numbers and severity; lack of capacity in understanding rights and responsibilities; accessibility; under-utilization of spectrum; and, lack of real-time & accurate data. Exacerbating digital divide due to higher investment in infrastructure and higher level of capacity in the urban areas thereby leaving the rural areas' concerns unaddressed timely and adequately.

Efforts to restrict free flow of data by and in certain countries are depriving people the benefits of modern technologies.

Power supply issues must be addressed while deploying ICT.

Taboos, apprehensions, misconceptions around ICT need to be mitigated via appropriate means and fostering trust. Varying levels of affordability, awareness, assurance, availability and accessibility of ICT.

Lack of appreciation and understanding of how technology is developed and deployed amongst a substantial number of policymakers.

7. Case Examples

Several examples were cited during the session including but not the following:

While the annual Internet Governance Forum is held under the aegis of UN, it has spawned hundred plus National and Regional Internet Governance Forums around the world, all following the cardinal principle and incorporating the spirit of multi-stakeholder model.

The London process led to the 'Global Conference on Cyber Space' that offer a platform for stock-taking and decision-making.

Even an archipelago like Bahamas has seen positive impact education, health and traffic by using ICT.

8. Road ahead

We need to devote resources to enhance awareness and build capacity to leverage extant technology and international law to enhance overall cyber security. Use of emerging technologies like Cloud Computing and Artificial Intelligence for the benefit of humanity even while proactively identifying and mitigating the downsides.

Instead of being bogged down by diversity, let us embrace, enrich and celebrate it even as we all work towards achieving the SDG 2030. Partnerships are essential – across regions and nations but also across governments, industry, academia and civil society.

Think Global. Act Local.

United Kingdom

H.E. Mr. Julian Braithwaite

Permanent Representative and Ambassador of the UK to the UN and WTO, UK Mission to the UN

Q - What do you think are the criteria to create an enhancing environment?
At the heart of WSIS is the willingness to create a people-centred, inclusive and development oriented information society. This is can only be achieved if at least 4 criteria are fulfilled.

An open and free environment

The first key pillar of an enhancing environment is openness and freedom. Ensuring it is a free and open space allows the Internet and the information society more generally to be a powerful tool to support freedom, innovation, knowledge and growth. Free flow of data, free expression, free dissemination of information and greater accessibility are all part of this puzzle and central to achieve a vibrant information society and digital economy.

A competitive and predictable environment

We also need to ensure the development of a competitive environment, offering choice to consumer and encouraging innovation and affordability. However, competition does not mean no rules but we need to make sure we have rules in place that are stable, independent and predictable. This will provide the companies the certainty they need to invest and innovate.

A trusted environment

The UK supports a global Internet that promotes economic and social prosperity. It can only be achieved with trust. Without trust users and business will not fully embrace the potential of the digital era. This is why the UK National Cyber Security Strategy envisaged for 2021, a digital world that is secure and resilient to cyber threats, prosperous and confident. Through the opening of the National Cybersecurity Centre (NCSC), the UK is showing its commitment to making the UK the safest place to live and conduct business online.

Trust has two complementary elements. Firstly, trust in the security of networks; and secondly, trust that individual rights and freedoms are being respected. Ensuring that online services are safe and secure is the first part. Protecting people and their data, through technical measures, is central so they can communicate privately, use online platforms with confidence, and know that they are safe. However, this is not only about technical security it is also about rights and freedoms. Trust can only be won, if we ensure respect for fundamental rights and freedoms. If we don't protect these rights online, we will not win the support of our citizens. Human rights have to be protected online, the same way we protect them offline.

A multistakeholder environment

Finally, we need to develop strong multi-stakeholder partnerships. Indeed, the information society has not been created by governments only and it is thanks to the involvement of all stakeholders: private sector, academia, civil society that we can enjoy the global online community that we have now. Governments should ensure that the framework is here for the dissemination of information, the growth of investment and the unleashing of innovation. The multi-stakeholder approach allows to address the risks of the digital age while maximising the benefits.

Q - You talked about risks and a secure Internet environment. We see calls from certain stakeholders for a new international treaty on cybersecurity – what is your opinion on such a proposal?

There are a few calls to tackle Internet challenges through new international instruments. This is true for cybersecurity but we also see similar requests in other areas, related to human rights and privacy, cyberterrorism or cybercrime. It is still unclear what people would like from such instruments.

Application of international law online

The UK is not of the view that we need new international instrument to deal with the cyber environment. Indeed international law applies in the digital space. Instead of looking for new treaties that will take more time to negotiate than the time it took the Internet to develop, we should unpack and implement the tools that we have and implement existing international law.

Focus on existing streams of work

The UK believes that developing a new treaty would only be an ineffective distraction from other important work such as educating users, developing a culture of cybersecurity, improving international cooperation to develop confidence building measures between states and promoting cyber security capacity building. Capacity building is indeed a central piece of the puzzle of a secure Internet and the UK is taking a leading role on this.

UK engagement on cybersecurity capacity building

Since 2012, the UK has spent over £10m building capacity in over 130 countries. A further £30m is planned for the next three years to build national cybersecurity strategic planning and incident response capabilities, facilitate the development of national law enforcement and criminal justice systems capable of addressing malicious cyber activity, and to support the development and implementation of regional confidence building measures between states.

Session Five: WSIS Action Lines and the 2030 Agenda / Financing for development and role of ICT

High level Track Facilitator: Mr. Michael Nelson, Cloudflare, USA

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Mr. Yushi Torigoe, Deputy Director, Telecommunication Development Bureau
3. **Switzerland** – Mr. Thomas Schneider, Ambassador and Director of International Affairs, Federal Office of Communications OFCOM
4. **Bulgaria –** Mr. Rossen Jeliazkov, Chairman, Communications Regulation Commission
5. **Cuba** – Mr. Ernesto Rodríguez, IT Director, Ministry of Communications
6. **UNDESA**— Mr. Vincenzo Aquaro, Chief E-Government Branch, Division for Public Administration and Development Management
7. **ITC –** Mr. Anders Aeroe, Director, Division of Enterprises and Institutions
8. **Horyou–** Mr. Yonathan Parienti, Founder and CEO
9. **eWorldWide Group** – Dr. Salma Abbasi, Chairperson and CEO
10. **International Commission on Cyber Security Law** - Mr. Pavan Duggal, Founder and Chairman

Introduction

This panel examined how to increase the amount of financing available for projects that can help nations reach the Sustainable Development Goals. Both the geographic diversity of the panelists and the wide variety of backgrounds was unusual. Most panels about development financing consist of bankers, economists, development experts, or financial analysts. But unlike those panels, this panel did not focus on business plans and rates of return, but (like High-Level Policy Session 4) examined the conditions that attract investors and innovators. The problem is not a lack of money. Several panelists stressed that the for the most part the global financial system will provide money to projects where there is a clear need, a good business plan, talented people, trust and security, transparency, rule of law, and government policies that foster investment. Panelists described how ICTs can help identify opportunities, recruit and

train talent, empower teams (no matter where the team members are located), and make it much easier to reach people in need.

Relatively little time was spent discussing financing for ICT infrastructure, something that organizations like the ITU, the World Bank, and the World Economic Forum have devoted a great deal of time and effort. Instead, the panelists emphasized how ICTs can solve problems as varied as food production, monitoring climate, energy efficiency, Smart Cities and traffic reduction, and improving health care. Not only are ICTs making it easier and less expensive to develop projects to address these challenges, they make it easier to replicate successful projects elsewhere. Social networks are a particularly effective way to assemble teams and share lessons learned. The most successful networks are international, interdisciplinary ones that span national borders and bring together people with a wide range of experience and training.

Several panelists stressed that the scarcity of talented people with the technical, management, and business skills needed to run effective development programs is one of the biggest reasons that projects do not get funded. Fortunately, ICTs can provide better online training tools, can help governments evaluate which training programs work and which ones do not, and can be used to publicize educational opportunities for students. Training programs will only be truly successful if they are inclusive and serve all sectors of society, including women, seniors, and those with disabilities (who are more likely to be elderly or poor or both).

Since government policies can do much to either foster or hinder private sector financing, it iscritical that each government uses ICTs to develop and adopt best practices and policy, collect data needed to assess the impact of their policy decisions, and work through international organizations to collaborate and learn from other countries. The UN Department of Economic and Social Affairs (UNDESA), which is responsible for WSIS Action Line C7 (on e-government applications) and WSIS Action Line C11 (on international and regional collaboration), has a particularly important role to play in this area and has collected useful survey data on e-government programs around the world.

Panelists mentioned several exciting new technologies, including the Internet of Things, 5G, social networks, artificial intelligence, block chain, digital currencies, and others, that can make it easier and much less expensive to meet the Sustainable Development Goals. But we must have “technology with a purpose,” which requires a clear vision of how technology meets human needs is essential. It’s not just about financial rates of return, ICTs can also foster creativity, the arts, and culture.
Trade has a key role to play in accelerating development, but we need “trade with impact” and that requires that governments do more than just support large, existing companies.

The International Trade Centre (ITC) is focused on helping entrepreneurs, especially women, who are building small and medium-sized business. The ITC is on track to reach its goal of helping one million women entrepreneurs by 2020. Fortunately, online services, e-commerce platforms, and Cloud computing makes it much easier and less expensive for small companies to develop and market their products and services to customers around the world. But such digital technologies will be less likely to be adopted if businesses, governments, consumers, and citizens do not trust them--if they are not reliable or secure. International organizations and investors can do more to demand that companies and governments do more to address cyber threats like malicious hacking, botnet attacks, and identity theft.

Unfortunately, today, laws against cybercrime (and the level of enforcement) vary greatly from country to country. Or, rules in different jurisdictions conflict which each other. Worse, in some cases, laws designed to reduce cyber vulnerabilities are having unintended consequences and making it harder for companies trying to develop and provide online services globally.

eWorldWide Group

Dr. Salma Abbasi
Chairperson and CEO

Your excellences, ladies and gentlemen, SVK, good afternoon and bonjour.

Please let me begin by quickly thanking the ITU particularly, Gitanjali and her team for the excellent arrangements of WSIS, and for once again inviting me to share my thoughts with you.

There is no doubt that we are making tremendous progress in constructively integrating ICTs across the full spectrum of the SDGs, which is creating a robust and holistic digital eco-system.

However, with the growing pressure of financial constraints in these turbulent times, many governments are struggling to overcome the multi-dimensional challenges to ensure holistic 'inclusion of all', in the eco-system. In fact, recent data highlights that the 'digital divide' is actually broadening across many dimensions, namely; gender, PwDs and the elderly.

Furthermore, a recent World Bank report highlights that now, over 1 billion people are currently living with disabilities around the world. 80% of these people live in developing countries. The higher prevalence of disabilities impact the poor, women and the elderly. 20% of the poorest people living in developing countries have a disability that is 1 in 5. In addition, other UN reports also highlight that 150 million children under the age of 18 are living with disabilities, and that approximately 20 million women become disabled each year, as a result of complications during pregnancy or child birth. In fact, WHO has stated that approximately 1 in 7 people around the world are living with disability.

More importantly, with the aging population, consequences of chronic diseases, coupled with the growing number of conflicts and natural disasters around the world, these numbers are steadily increasing. Therefore, this is a significant number that cannot be ignored or excluded any longer.

However, there needs to be a significant paradigm shift in the approach and consideration that countries take while developing integrated policies and strategies that cut across all aspects of life for PwDs. In addition, these policies and strategies need to be complemented with practical and localize interventions that internalize, reflect and address the negative perception, discrimination and biased, that exist in society and business today towards the PwD community.

It is also important to acknowledge that disability is not a charity, it is a condition of the body and to appreciate that all of our bodies will eventually change with time. Therefore, it is crucial that we design for accessibility and inclusion, building practical and holistic frameworks that are developed in harmony with the local context, environment and societies.

With the recent breakthroughs in assistive technology, STEM and innovative applications of ICTs and AI, a unique opportunity presents itself to governments. This opportunity allows governments to collaborate and join hands with the private sector and research institutions to create innovative but practical interventions that will accelerate the access, inclusion and holistic engagement of the PwD communities.

However, to ensure its success, clear policies, strategies and plans need to be crafted, along with specific targets and goals in collaboration with stakeholders to present the potential opportunity and incentives to motivate the private sector to address the unique needs of the PwD community as it potentially opens up a new market of over 1 billion people.

It is only through this compassionate type of 'public, private, people collaboration' will we be able to make affordable, sustainable and significant improvements in the quality of life, that provides dignity, respect, engagement, inclusion and holistic wellbeing for the PwD community in all aspects of their lives.

Session Six: Bridging Digital Divides

High level Track Facilitator: Dr. Anuradha Rao, National University of Singapore

High level Speakers

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Dr. Cosmas Zavazava, Chief of Department, Projects & Knowledge Management, Telecommunication Development Bureau
3. **Japan–** H.E. Mr. Masahiko Tominaga, Vice-Minister for Policy Coordination (International Affairs), Ministry of Internal Affairs and Communications
4. **Czech Republic** – Mr. Jaromír Novák, Chairman of Council, Czech Telecommunication Office
5. **Research ICT Africa**–Dr. Alison Gillwald, Executive Director (South Africa)
6. **Amplio (formerly Literacy Bridge)**– Mr. Cliff Schmidt, Founder & Executive Director (United States)
7. **Fundación Proacceso–**Mr. Aleph Molinari, President (Mexico)

Session 6: Bridging Digital Divides explored the policies, priorities, innovations, and challenges in bridging digital divides in various parts of the world. The panel had a good representation of the various stakeholder types and regions, and produced interesting discussions on the multi-faceted nature of the divide, and the various ways in which governments, academia and civil society groups are addressing this issue.

In terms of access, the cases of Japan and the Czech Republic offered useful lessons on how to successfully bridge the digital divide. In the case of Japan, where 99.9% of the population has the capability to connect to the internet, telecom operators have played a key role in bridging the digital divide. This has been achieved with the government's support through the introduction of competition policies. Given Japan's (and indeed every country's unique context and conditions), the Japanese representative highlighted that the fastest way to bridge the digital divide was to find the best practices most suitable for one's country.

Another successful example was the Czech Republic, where one of the key priorities is to introduce 5G along the lines of its successful 4G implementation. With connectivity not a problematic issue, the focus of their efforts to bridge the digital divide has been on digital literacy activities aimed at senior citizens,

and the aim is to extend these efforts to the youth, to inform them of the possibilities and perils of being digitally connected.

Data emerged as a key talking point with the academic and civil society representatives, who viewed data as a critical tool for citizen empowerment as well as informed policy making. Conversely, the lack of adequate or accurate data in the Global South was highlighted as an impediment to measure the progress of ICTs towards the 2030 targets. With better data collection methods, such as those initiated by Research ICT Africa, inflated statistics about digital connectivity could be challenged, contributing to a more precise understanding of the actual digital divide and the progress towards meeting the Sustainable Development Goals (SDGs).

Another crucial issue highlighted was the digital paradox, viz., that efforts to bridge the digital divide have inadvertently exacerbated inequalities due to higher expectations and demands from already connected populations. It was also stressed that if efforts were not re-directed at connecting the least connected groups first, that the digital divide would almost certainly widen, doing most harm to the most vulnerable communities. The session discussed civil society efforts—in partnership with international organizations, governments and the private sector—to tackle this, such as efforts by Amplio and Fundación Proacceso to reduce the digital divide in rural areas and among poor communities in the United States and Mexico respectively. This includes providing low-tech gadgets as well as identifying and providing training and capacity building in the relevant digital skills that would be useful and practicable in workplace. In other words, a key goal to consider in bridging digital divides is how to enable people to leverage new technologies in ways that are empowering for them and enable them to contribute better to their societies.

Overall, there was a recognition of the changing nature of the digital divide and digital inequalities, and the ways in which our understanding and analysis of the phenomena needs to shift if we are to tackle it more meaningfully. So, while access, infrastructure, and connectivity are still important factors to consider, the panel pointed to a variety of other factors that are reflective of digital inequality, i.e. of people's ability to participate in their environments. These include, among other things, data, content, skills, capacity building, and individual empowerment. Such a revised focus, which would also have to carefully consider the differences and inequalities between and within developing countries, would therefore link with several WSIS Action Lines, particularly C1-C5, and if done in a holistic manner, would put us on the right path to achieve the SDGs.

Japan

H.E. Mr. Masahiko Tominaga
Vice-Minister for Policy Coordination (International Affairs)
Ministry of Internal Affairs and Communications

Question1:

In Japan, the population with access to the Internet is very high.

How did you bridge the digital divide?

Answer:

The population with the capability of access to the Internet reached more than 99.9% in Japan. 99% of households have the capability to connect with over 30 mega bps (best-effort type) of the fixed infrastructure including FTTH.

The telecom operators play a main role for bridging the digital divide.

The government has been encouraging them to expand the connectable coverage by implementation of the competition policies.

It is difficult for private operators to deploy connectivity in sparsely populated districts such as remote islands and mountainous areas, because of the cost ineffectiveness.

The Japanese government subsidized the local governments, so that the deployment was driven by the collaboration of the local governments and the operators.

In the deploying process, one of the driving force was the local governments' recognition that the optical fiber connection is essential to promote the development of industry in their regions.

Of course Japan's experience does not apply to all countries, due to differences such as geographical environment (such as isolated islands or mountains,), the population density, the activities of the operators and so on.

The fastest way to bridge the digital divide is to find the best practice suitable for your country through various achieved experience

Our number one priority is to get everyone connected to the Internet.

Connectivity must be provided to people at affordable price so that they can keep connected.

At first broad band connections with high speed internet may not be offered.

Even without a broadband connection, people can benefit the new values of ICT.

Once they connect and experience, I believe they will drive the digitalization of the society themselves.

Question2:

What should we keep in mind when we promote the policy to bridge digital divide?

Answer:

We have to give priority to accessibility even if it would not be broadband, considering the large cost to bridge the digital divide.

But we should recognize the necessity of the broadband connection for the digital transformation from a long-term perspective.

The digital transformation combines the physical space and the cyber space.

This will give us opportunities to be free of the limitation of the physical world such as medical care and education in remote areas, and make it more efficient in the service and manufacturing and in the sectors such as agriculture.

Furthermore, people, local communities, countries and regions which have limitation in the real world can use their ability to their maximum extent by making the best use of digitization.

I believe promoting the digital transformation is important to develop our social economy, to live a better life, and to keep sustainable growth by overcoming various challenges we face.

The digital transformation requires sufficient performance capability for the network to withstand applications operated by all people and things.

Therefore an infrastructure we can built on is important.

When we promote the policy to bridge digital divide, we should keep in mind the efficient investment considering the digital transformation such as the initial investment of a large capacity backbone network from a long-term perspective.

Session Seven: Building confidence and security in the use of ICTs

High level Track Facilitator: Mr. Pavan Duggal, Founder and Chairman, International Commission on Cyber Security Law

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Ms. Doreen Bogdan-Martin, Strategic Planning and Membership Department
3. **Romania -** H.E. Ms. Maria-Manuela Catrina, Secretary of State, Ministry of Communication and Informational Society
4. **India –** Ms. Aruna Sundararajan, Secretary (Telecom), Vice-Minister, Ministry of Communications
5. **Turkey**– Dr. Ömer Fatih Sayan, President & Chairman of the Board, Information and Communication Technologies Authority
6. **Norway Government (Ret.)-** Mr. Stein Schjolberg, Chief Judge (Ret.)

Introduction:

The present High Level Session had distinguished panelists talking about various aspects pertaining to various measures aimed at building confidence and security in the use of ICTs. The Session first began with the Track Facilitator welcoming all the panelists. Ms. Doreen Bogdan-Martin, Strategic Planning and Membership Department, ITU gave her perspectives on thought leadership that ITU has taken in the WSIS process. She shared his inputs on 10th anniversary of Global Cyber Security Agenda and 15th anniversary of the Geneva Plan. She further gave perspectives on the contribution of ITU in providing appropriate platform for discussions and debates for creating more opportunities in the use of ICTs.

H.E. Ms. Maria-Manuela Catrina, Secretary of State, Ministry of Communication and Informational Society, Romania spoke about the role of Government and public authorities in building and preserving secure online environment. She further gave perspectives on how we can prepare the new generation in facing the challenges posed by fast paced development of new technologies. She further gave the examples of approaches adopted is Romania in this regard.

Thereafter, Ms. Aruna Sundararajan, Secretary (Telecom), Ministry of Communications and Information Technology, Government of India spoke about the specific challenges that the Indian nation faces towards ensuring safety and security in the use of ICT. She further elaborated the strategies and approaches adopted by India and the various steps taken by the Government of India for building confidence in the use of ICTs especially in the financial transactions. She also highlighted the Indian roadmap for future approaches to be adopted by the Indian nation towards safe and secure use of ICT.

She further highlighted the cogent positive steps through which India could potentially contribute to the WSIS process in terms of safe and secure use of ICT and the requisite Indian strategies in this regard. Thereafter, the session was addressed by Dr. Ömer Fatih Sayan, President & Chairman of the Board, Information and Communication Technologies Authority, Turkey who highlighted the efforts in Turkey to ensure users' confidence in the use of ICTs. He further explained the role of the Board, Information and

Communication Technologies Authority on issues of ensuring users' confidence in the use of ICTs. He further gave various perspectives of Turkey to increase security regarding the use of ICTs.

The Session was also addressed by Mr. Stein Schjolberg, Chief Judge (Ret.), Norway who talked about the need for having in place Geneva Convention or Declaration for Cyberspace. He further highlighted the various standards, norms and procedures that could be included in the Geneva Convention and Declaration for Cyberspace.

Thereafter, the High Level Track Facilitator Mr. Pavan Duggal, Founder and Chairman, International Commission on Cyber Security Law gave his perspectives on the need for having in place international norms concerning cyber security at the international level.

Then High Level Track Facilitator Mr. Pavan Duggal opened up the entire discussions with the audience. Various questions were asked by different stakeholders to the panelists concerning different aspects of confidence building and security. Number of questions relating to policy frameworks were asked. There were other questions which highlighted the technological strategies that countries faced in producing and proving cyber security breaches.

The panelists were unanimous that building confidence and security in the use of ICTs has to be number one priority. The speakers further highlighted that rather than emphasizing on discussions and debate, stakeholders must take appropriate steps in the direction of taking concrete action towards building confidence and security in the use of ICTs. The panelists agreed that lot of work needs to be done by all stakeholders in this regard. The panelist further agreed that the Governments cannot be alone responsible for building confidence and security in the use of ICTs but the private sector and other stakeholders in the information society need to also play an important role in this direction. The panelists recognized the kind of challenges that have faced by information society and the need for effectively addressing the challenges raised by the same by cogent positive action. The session ended with the note that far more work needs to be done in building confidence and security in the use of ICTs as dynamically changing landscape concerning cyber security is constantly evolving.

Session Eight: Inclusiveness – access to information and knowledge for all

High level Track Facilitator: Ms. Moira S. Patterson, Global Affairs Program Director, IEEE Standards Association, USA

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Dr. Reinhard Scholl, Deputy Director, TSB, ITU
3. **Greece** – Prof. Konstantinos Masselos, President, Hellenic Telecommunications & Post Commission (EETT)
4. **Zimbabwe** – Eng. Samuel Kundishora, Permanent Secretary, Ministry of Information Communication Technology, Postal and Courier Services
5. **Ukraine -** Mr. Olexandr Ryzhenko, Head, State Agency for E-Governance
6. **Facebook**– Dr. Robert Pepper, Head of Global Connectivity Policy and Planning
7. **International Network of Women Engineers & Scientists (INWES)-** Ms. Yvette Ramos, Vice-President INWES, External Relations
8. **UN Major Group for Children and Youth** – Mr. Ryan Kelly, Student

1. Introduction

This panel brought together stakeholders from governments, industry, and civil society to discuss how we can ensure access to information and knowledge for all through ICTs, as articulated in the WSIS Action Lines and the UN SDGs.

2. Vision

Agenda 2030 for sustainable development includes a call for information and communication technologies (ICT) for all as ICTs enable opportunities for people. Some key themes that emerged were that it is critical to involve all stakeholders, including marginalized and disadvantaged ones, in discussions around internet inclusiveness. Furthermore, education of users is key. The representative from Greece highlighted a key point, which is that while ICTs are exciting, what really matters is social impact, and therefore we should view ICTs as a resource to be used to achieve the greater good.

3. Fresh Priorities

A key priority that was discussed was the inclusion of all stakeholders. Two civil society groups were represented on the panel, representing youth and women, and this signals the importance of including these groups. However, it was also noted that more individuals of these (and other) groups need to be part of all WSIS participants, serving as government or industry representatives as well. Going beyond this symbolic representation, inclusion needs to be reflected throughout ICT development, policy making, and user communities. Persons with disabilities or other challenges were also mentioned, and needs of the different-abled need to be considered, especially as many societies are aging.

4. Emerging Trends

The session showed the importance of institutional tools to bring change, such as policy changes, roadmaps, and indexes. Several panelists have been working with such tools and showed their value. The Internet Inclusiveness Index study by Facebook, based on 57 indicators measured for 83 countries, showed some interesting trends:

- Internet connectivity grew by ~8 % year-over-year, and in the least developed countries it grew by 65% year-over-year.
- A 2G 'skinny connection' is not sufficient to reap the benefits of connectivity, leading to the problem of the under-connected. People need 3G or 4G, and those are slowly becoming more prevalent.
- The digital gender divide continues, with more men than women connected on the Internet. However, countries with gender inclusion programs seem to be successful.

5. Opportunities

Several opportunities were discussed during the panel. The abovementioned study showed that while the gender digital divide continues to exist, places where programs to address that divide existed showed a decline in the gender digital divide. This shows that designing thoughtful interventions can work. And another opportunity is the use of roadmaps. Every year Ukraine develops its open data roadmap which is a guiding document created with the participation of all stakeholders. Ukraine has developed and launched the state's open data portal which contains more than 25'000 data sets, which also contributes to transparency.

7. Key Challenges

While it was noted that thoughtful interventions can work, several panelists highlighted that not enough has been done to reach the inclusiveness goals with regards to women and youth.

INWES stated that they can offer resources, such as best practices and mentoring programs, to share with governments and organizations wishing to address the gender gap, but it was observed that more needs to be done to overcome structural barriers. The UN Major Group for

Children and Youth representative highlighted the need for increased transparency and data practices that protect individuals' rights and access to basic services. Finally, resources, both financial and technical, are other challenges that were noted.

8. Link to WSIS Action Lines & Sustainable Development Goals

The direct WSIS Action Line connection is to C-2 and C-3 and related SDGs, the discussion showed the interconnections between these and the other action lines, as the role of government and all stakeholders, the enabling environment and other items were also discussed.

9. Case Examples

Zimbabwe provided an in-depth example of how it modernized its national ICT infrastructure through

1) policy and regulatory changes that were built on a consultative process with all stakeholders and consideration of relevant risks and rewards, 2) the deployment of a fiberoptic infrastructure nationwide, and 3) promotions and awareness-raising. Part of the strategy is to create access centers for citizens to use in remote areas, leveraging post offices where they exist, and deploying container locations in even more remote areas. These access centers serve as awareness and education centers, as well as giving people access to e-Services.

10. Road Ahead

To continue the positive strides that have bene made towards making knowledge for all through ICTs a reality, the following points stood out:

- Articulate clear goals with measureable targets. Then indexes or other measurements can be developed and progress can be measured.
- Create roadmaps towards achieving the goals. Thoughtful and planned approaches are necessary to effectuate change.
- Institutional changes and spaces are needed where all stakeholders can participate in the process.

Session Nine: ICT applications and services

High level Track Facilitator: Mr. Pierre Mirlesse, Hewlett Packard Enterprise, EMEA, Switzerland

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Mr. Yushi Torigoe, Deputy Director, Telecommunication Development Bureau
3. **Niger** – H.E. Mr. Ibrahima Guimba Saidou, Ministre, Conseiller Spécial du Président de la République, Agence Nationale pour la Société de l'Information - ANSI
4. **Azerbaijan**– H.E. Mr. Elmir Velizade, Deputy Minister, Ministry of Transport, Communications and High Technologies
5. **Oman -** Mr. Dr. Salim Al Ruzaiqi, CEO, Information Technology Authority
6. **Nokia Corporation**– Mr. Marc Vancoppenolle, Head of Global Government Relations
7. **25th Century Technology Limited**– Dr. Kwaku Ofosu-Adarkwa, Managing Director

Introduction:

The Panel was very engaged in providing Actionable Insights and best practices From Niger, Oman, Azerbaijan and Mexico to turn ICT into Application and concrete services for the benefit of Society and aligned with the SDGs. The exchanged expanded with the Private Sector representatives from Nokia Corporation and 25th Century Limited.

The key questions discussed by the track facilitator, Pierre Mirlesse, were:

How can one deal with accessibility challenges in such a large country as Niger and with limited incomes. What strategy Niger has put in place to develop local services and applications?

What are the level of Use and tangible outcomes of ICT Applications and Services in Azerbaijan and the country plan for the future?

From the Mexican execution example, which services are most important to Digitize and what recommendation can be deployed in a Public ICT Policy definition?

What are the best practices and learnings that can be shared from the Oman PKI Initiative ICT success leading it to one of the top 5 UNCTAD ranked countries in the Global enterprise registration portal?

What are the Policy recommendations from the private sector, promises of broadband and 5G enabled infrastructure? What are the positive impact of the 4 Industrial revolution to be considered and its IoT infrastructure?

What are Performance indicators and measurement system are to be deployed and leveraged to track progress towards defined goals?

Key insights shared, Opportunities and findings:

ICT application and services must derive from and cohesive ICT policy, focus on tangible outcome for society (supporting each country's priorities) and thus be measured towards the SDG impact they enable.

There are many best practices to be shared and leveraged. From Oman's National PKI initiative to Smart Villages in Niger, from Policy clarity in Mexico to Citizen engagement and eGov Services in Azerbaijan.

The Discussion even pointed to a collaboration opportunity between Azerbaijan and Niger

The collaboration between Private, Public and Academic actors has proven a key success driver in ICT applications and services best practices.

Looking to the future road ahead:

ICT applications and Services are fundamental to the advancement of SDG progress in a country.
-
a) Access to connectivity b) Ease of public services engagement (through broadband infrastructure expansion, e-Services and GCloud) driven by use cases: Healthcare, Education, government services..etc.. c) Ease of doing business (ICT Policies) are fundamental to this journey.

-They should inform a Public policy and investment based on country priorities.

-They should be tracked and measured to provide insights to business leaders and Policy makers.

25th Century Technology Limited

Dr. Kwaku Ofosu-Adarkwa
Managing Director

Strengthening the Alignment between WSIS Action Line C7 and SDG Target 6.B and SDG Target 9.C: Towards the Creation of Synergy to Facilitate the Leveraging of ICT in Waste Management: The case of Ghana.

For a good period of 15 years, the WSIS process has been constantly evolving. In recent years the evolution is being effected through the strengthening mechanism of ensuring close alignment between the WSIS Action Lines and the Sustainable Development Goals (SDGs).

Under WSIS Action Line C7, committed to in 2003, rapid results had been expected from the use and promotion of ICT to serve as instrument for the attainment of environmental protection measures that will inure to the sustainable use of natural resources. Action Line C7 had further placed emphasis on the initiation of actions that will lead to rapid implementation of projects and programs to propel sustainable promotion of environmentally safe disposal and recycling methods of waste of all forms.

Notwithstanding these laudable plans, the process leading to the attainment of WSIS Action Line C7 targets had been slow, particularly in emerging economies, thus necessitating the introduction of an alignment within the 2015 SDGs with the view to propelling the rapid attainment of set developmental targets related to solid waste management among others.

In pursuit of that, under SDG Target 9.C nations are urged to strive that by 2030 universal and affordable access to Internet would have been achieved, such that, the provision of ICT access to the citizenry will have positive and inclusive impact on the strengthening of the participation of local communities in improving water and sanitation management, as per SDG Target 6.B.

Faced with this challenge, nations, particularly emerging ones, are enjoined to ensure that significant progress made in the provisioning of access to ICT, reported over the years, and normally measured by the proportion of their population covered by a telephony and mobile network technology will of necessity be linked to ICT applications that benefit the local citizenry in respect of improving environmental improvement and waste management.

The quest to achieve an inclusive participation in the leveraging of ICT in the waste management sector poses a lot of challenge on countries, particularly emerging economies, to translate and measure their reported ICT growth in terms of capacity to harness them on supportive services application platforms.

According to figures released by the ITU, mobile-broadband subscriptions have grown more than 20% annually in the last five years reaching 4.3 billion globally as at the end of 2017. This translates to about two-thirds of the world's population now having access to mobile phone of which more than half of all mobile connections around the world are now broadband.

The question arising out of this impressive growth pattern is: to what extent has global economies taken advantage of this technological advancement (SDG Target 9.C) to strengthen the participation of local communities in ensuring ICT-enabled waste management (SDG Target 6.B)? And further what are the challenges posed to Ghana in this respect and how are they being addressed?

Snapshot of Ghana's ICT Growth

As of September 2017, the National Communication Authority (NCA) of Ghana released Ghana's mobile data subscriptions figure as 22,865,821 representing a penetration rate of 79.94%. All the five major Telecom service providers were reportedly competitively placed. In respect of mobile voice telephony, as of the same period, the total number of subscriptions was 37,445,048, representing a penetration rate at the time at 130.91%. Aside this there is massive growth recorded in ICT infrastructure development including the establishment of a universality service fund to cater for the extension of ICT access to far flung areas.

Snapshot of Ghana's Waste Management Ecosystem

Governments across the globe, Ghana's inclusive, have tried to eradicate the problem of garbage. However, as the population and economic activities increase over time, garbage creation also doubles and calls for proactive measures to treat and recycle garbage for economic benefits. Based on the 2014 population estimation of 27 million, a total of 12,710 tons of household solid waste is generated per day in Ghana. It is further estimated that across the country, waste generation rate ranges from 0.28 kg/person/day at municipalities to 0.63 kg/person/day in metropolis and cities. In the urban municipalities alone, it is estimated that up to 40% of municipal wastes in Ghana remains uncollected (Fei-Baffoe & Mensah 2015). Meanwhile of those collected, large volume is classified as having the capacity to be transformed into organic usage when processed to bring economic value. However, only 300 metric tonnes of municipal solid waste is treated per day by an Accra Compost and Recycling Plant, a private sector entity yielding an average organic compost of 30 metric tonnes per day.

The implication is that cities and a large number of municipalities and assemblies do not have any processing facilities resulting in haphazard dumping of wastes all over the landfills which are also difficult to be acquired. The lack of adequate storage and collection facilities coupled with the lack of waste segregation and treatment methods has also resulted in:-

- Improper waste disposal that is evident in littering in communities.
- The clogging of canals, and gutters with all different kinds of wastes.

Legal framework for the deepening partnership between the Driving Ministry, the District Authorities and the Private Sector:

Under Section 12 (1) (a) of Ghana's Local Government Act, Act 936, District Assemblies have the mandate to "***Exercise political and administrative authority in the district***" and linked to this under Section 12 (b) the Assemblies are duty bound to ***"promote local economic development".*** Certainly the major players that the Assemblies can relate to in terms of waste management is the private sector players engaged in the waste industry as well as the private sector ICT solution providers. This is a real opportunity for partnership to close this gap in development. Ironically however, the platform of WSIS Forum appear not to have attracted the participation of many of representatives from the Local Authorities over the years to enable them appreciate the enormity of the global targets set in effective waste management under the WSIS Action Lines and now linked to the SGDs: a gap to be closed.

Leveraging ICT in Waste Management: Ghana's policy terrain

With the phenomenal growth recorded under Ghana in ICT sector, including the laying of extensive fibre optic network across the country, it was about time the numerous policy initiatives put in place were taken advantage of to facilitate the development of technological innovations in the waste management sector.

In terms of data management the technological platform created in Ghana, under the purview of the Ministry of Communications, to facilitate housing address system can provide the needed data to guide the development of the pilot program for waste management analytics-based indicators and alerts to improve the performance of the entire fleet of waste conveyance trucks towards the design of a more efficient system for picking up waste.

Additionally the establishment of the Ghana's Digital Innovation Village in the city of Accra and Community Information Centres in the municipalities can lead to dedicated attention being given to young IT Software and solution developers who could partner the private sector players and the District Authorities to provide IT-based solution platform for waste management. This should also be seen as job creation opportunity for the youth.

Some of the technological solutions that can be explored may include:

a) Designing platform to ensure the visibility of city and urban sanitation solid waste management,
b) Facilitating route planning and monitoring for garbage collection
c) Adding visibility of waste bins and their locations etc,

The Inclusiveness of the Citizenry:

The creation of awareness among the citizenry is key to the evolution of any meaningful waste management technologies. Implicitly it is incumbent on all stakeholders to strive to ensure that citizens are involved in IT-based solution development for common sanitation problems. Citizens would in turn become participants in the process to enable them offer feedback on all applicable solutions. With Ghana's phone penetration rate having wide spread penetration of 130.91% of which 79.94% is broadband facilitated, the citizenry may be encouraged to use the medium of mobile telephony to post comments to dedicated monitoring centres at all District Assemblies. Indeed the Telecom service providers are potential partners in the development of these platforms as they will also serve as avenues for branding and marketing that also will have business case for them.

Some Challenges to be surmounted

In all these instances one may raise the issue of Internet Affordability. Ghana is reported among the countries that have signed on to the implementation of the Alliance for Affordable Internet (A4AI) recently declared ***"1 for 2"*** Internet Affordability target. The pursuit of this target is intended to yield the dividend 1GB of mobile data priced at 2% or less of monthly average income and in the process reverse the current levels 3-5% of GNI which renders income earners including bottom 20% unable to afford cost of basic broadband connection. With the problem of Internet affordability being handled through the infrastructure sharing and open access model, and rural community connectivity programmes under the Universality Fund initiatives, it was about time a massive take off was effected to utilize the many investment in ICT specifically to initiate a massive e-waste management. The problem of source of funds may not arise as in all cases cost and revenue sharing models can be developed to the mutual benefit all stakeholders.

Conclusion

Ghana needs to put in place a multi-sectoral approach to utilize its ICT platform at the applications level. For now waste management and recycling have a lot of prospects to reverse the poor environmental sanitation being experienced. The significant change in ICT systems ought to be translated to ensure effective application platforms with the active participation of the citizenry as envisaged under SDG Target 9.C supported by SDG Target 6. B.

What is needed is a public-private sector platform around which specific initiatives can be developed with the partnership of academia, the private sector and the civil society. And this is where the **25th Century Technology Limited,** based on its research outcome, has positioned itself to champion, through the establishment of close interaction with the sanitation, local government and communications sectors policy makers to ensure that Ghana will turn her impressive telephony penetration rate to build inclusiveness in the leveraging of ICT in waste management. There is no doubt that the adoption of innovative and smart technologies can help increase efficiency and productivity in the waste management and recycling industry in Ghana

Session Ten: Inclusiveness – access to information and knowledge for all

High level Track Facilitator: Ms. Cristina Valdés Argüelles, Geneva International Model of United Nations, Switzerland

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator UNESCO –** Mr. Boyan Radoykov, Chief of Section, Section for Universal Access and Preservation
3. **Pakistan** – H.E. Ms. Anusha Rahman Ahmad Khan, Minister, Ministry of State for Information Technology and Telecommunication
4. **Colombia**- H.E. Mr. Juan Sebastián Rozo, Vice Minister of Connectivity and Digitalization, Ministry of Information Technologies and Communications
5. **Practical Action**– Mr. Paul Smith Lomas, CEO
6. **ARTICLE19**– Ms. Mahsa Alimardani, Iran Programme Officer
7. **Association for Progressive Communications**– Dr. Carlos Rey-Moreno, Community Networks Project Manager
8. **University of Geneva** - Prof. Yves Flückiger, Rector
9. **CODATA (Committee on Data for S&T)** – Prof. Chuang Liu, Chair of Data Publishing Subgroup, CODATA Task Group in Developing Countries (China)

1. Introduction and vision

This session focused on the necessity to implement inclusive access to information and knowledge for all individuals, organizations and societies by connecting the unconnected and implementing appropriate education on digital skills.

The main shared vision captured was to enable people and societies to own their own destinies by having the rightful access to information and knowledge and by connecting the unconnected. A second collective vision was presented during the session, implying that technology is a strong tool to continue evolving and improving the wellbeing of the respective societies.

2. Fresh Priorities

ICT's infrastructure is constantly evolving and, hence, governments may need to be continuously focusing on providing the latest technology and infrastructure to the people.

Knowledge sharing and solutions shall be handed to users in the right form; information shall be contextualized –by, for example, producing the information respecting multilingualism– and shall be responsive so that they achieve their greatest potential.

Provide the unconnected areas with the same quality of lifestyle that the connected areas may have the following idea was introduced: Societies should move forward from naivety in what concerns the cyberspace and create a framework to prevent from cybercrime.

3. Emerging trends

Education in the field of digital skills and technology usage is being fostered particularly among youth, women and people living in rural areas. Also, Pakistan is focusing on the demand and supply side partnering the private and public sectors.

Two opposed trends came to the fore during the session: on the one hand, the idea of regulating the Internet so as to create a legal framework and, on the other hand, the idea of leaving the Internet untouched and free of regulation.

4. Opportunities

By sharing knowledge and providing sound and inclusive education on digital skills, societies will be able to provide access to information and knowledge. Technology represents a powerful tool to take into consideration for innovation and evolution of inclusive societies. By strengthening the programs involving technological and digital education, especially for the younger generations, information societies will evolve following an inclusive path.

5. Key Challenges

Increase the efforts to provide inclusive connection, because the population as well as the needs increase as well.

High cost of this latest technology is an impediment for part of the population who cannot afford them and, to this matter, governments shall invest to connect the unconnected. Especially in developing countries, due to budgetary deficits, the total budget gets diversified in other areas. Solutions have to be taken to scale and sustained, working in partnership with the governments and the private sector. Free access and online neutrality should be protected.

The still remaining digital divide is to be broken.

6. Link with the WSIS Action Lines and Sustainable Development Goals (SDGs)

This panel was in line with WSIS Action Line C3 regarding "Access to information andknowledge" and the 2030 Agenda for Sustainable Development, specially contributing to the implementation of Goals: GOAL 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all); GOAL 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation); GOAL 10 (Reduce inequalities within and among countries; GOAL 16, target 16.B (Promote and enforce non-discriminatory laws and policies for sustainable development)

7. Case Examples

A case example cited within the panel was: "Ciudadanía Digital", which is a Colombian program aimed to provide the citizenship with the skills they will potentially need to make good use of the new technologies and improve their life standards.

University of Geneva is pioneer in challenge-based learning for SGDs by creating a program called Geneva-Tsinghua, encouraging students to innovate in the frame of sustainable development.

The WSIS Award winning program "ConverTIC" presented by Colombia helped connected people with visual disability.

8. Road ahead

Create momentum for empowering people and societies through information and knowledge.

Appropriate education on digital skills is seemed as a priority to access and benefit from information. As the founder of Practical Action once said: "You can provide someone with material goods and you will make them dependent. Give them knowledge, and you set them free".

Practical Action
Mr. Paul Smith Lomas
CEO

Practical Action believes that technology can play an important role in development. ICTs are not a silver bullet, but they can be a very effective channel to provide access to information and knowledge for all.

Information should be made available, accessible and affordable to all regardless their social and economic status including women and men from marginalized groups and those groups traditionally viewed as “hard to reach”

To be effective, the content of information should meet the needs of target audience. Therefore, information needs to be contextualized and localized (i.e. translation in local language, consideration of local knowledge and wisdom, and sensitive to local culture and circumstances).

Knowledge is most effectively shared as part of a dialogue – where it is directly meeting the needs or questions of the recipient community.

To serve the last mile (also known as the first mile), online engagement should go hand in hand with offline face-to-face engagement.

The roles of information intermediaries, e.g. community extension workers and social mobilisers, are critical to help to contextualize and facilitate learning. Knowledge sharing is also about trust – who produces and delivers information, and facilitates the learning processes is important.

Information in itself does not necessarily lead to development outcomes unless people know how to transform (online) information into knowledge and actions. People need to be equipped with digital skills in order to access and use the (online) information as well as to participate in development process.

We have to be mindful of unintended consequences of ICTs used in information and knowledge sharing. ICTs are not neutral, and, if not used carefully can exacerbate information asymmetry and digital divide. And they can exacerbate the power-dynamic between those who have control of ICTs and information and who don't.

In order to deliver the WSIS Action Line on inclusiveness – access to information and knowledge for all, it is necessary to focus very strongly on "the demand side" – on making sure that people have the necessary skills and can access quality, affordable content. This will require an ongoing multi-stakeholder approach and significant additional resources. This is an investment worth making as knowledge sharing can be a most effective way of delivering poverty reduction.

Session Eleven: ICT applications and services

High level Track Facilitator: Ms. Moira de Roche, IFIP IP3 Chairman, Global Industry Council Director

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Mr. Kemal Huseinovic, Chief, Department of Infrastructure, Enabling Environment and E-Applications (IEE)
3. **Mali** - H.E. Mr. Arouna Modibo Touré, Ministre, Ministère de l'Economie numérique et de la Communication
4. **Iran (Islamic Republic of) –** H.E. Mr. Nasrollah Jahangard, Vice Minister for Technology and Innovation, Ministry of Information & Communication Technology
5. **Poland –** H.E. Mr. Karol Okonski, Undersecretary of State, Ministry of Digital Affairs
6. **India** –Mr. Prabhash Singh, Member (Technology and Services) Telecom Commission, Department of Telecommunications, Ministry of Communications
7. **SSVAR - Swiss Society of Virtual, Augmented and Mixed Reality –** Mr. Jean-Philippe Mohamed Sangare, Founder and CEO

1. Introduction

The panellists in this session were primarily from Government but included the WSIS Action

Line facilitator who is from ITU, as well as an NGO. This diversity provided a diversity of views.

2. Vision

Virtual, Augmented and Mixed reality must be used for more than games. There are many opportunities for business and the information society.

Provide access to ICTs in a fair and equitable manner

Governments can work with public sector to provide services to underserved areas.

3. Fresh priorities

- Green computing
- Using ICTs for Disaster management and relief
- Cybersecurity, ICT applications, accessibility, connectivity.
- Using VAR for education
- Emerging trends
- Projects in Iran are aligned with ALs, and have been in the national development plan for 15 years
- Green initiatives to reduce carbon footprint

4. Opportunities

- In Iran, more than 50% of the population have access to the internet, and there are more than 50 million mobile phones, and there is a good opportunity for investment in the country because of the huge growth potential especially in the telecommunications sector.
- Work with all UN agencies to achieve ALs and SDG's – cooperation is essential.
- Data sharing (public data with citizens and businesses) – it become public information.
- From an economic point of view, augmented reality already has attracted significant investment, and this is set to grow exponentially.

5. Key challenges

- Important to have resilient strong infrastructure
- Thinking "green" in all aspects of ICT e.g. reducing waste, emissions and more
- Safety and security and trust in use of digital products is essential
- Managing disasters using a portal to distribute information
- Opening public data for transparency, but still keep it reliable and secure. This is to share the public data with everyone.
- Sustainable development and auditing progress
- User friendly portal.
- Encourage business to re-user public open data, but training and education is key. Public data can also benefit start-ups.
- Sufficient and robust ICT infrastructure
- Localisation is important in providing access

6. Link with WSIS Action Lines & SDGs

Action Line C7 ICT Applications: E-government; E-learning; E-health; E-environment

SDG 1, 3, 4, 7, 8, 12, 17

7. Case Examples

- ITU working with ILO to produce a toolkit for Digital Skills
- SSVAR – 3D augmented reality used in the Health sector to teach doctors in underserved areas. Common exchange programme for technologies and ideas
- Localised internet content (Iran)
- Digital financial inclusion projects (with Gates Foundation)
- Road ahead
- Governments should work to make ICT application safe and secure. This should be done at in-country, regionally, and with global cooperation to ensure cross-border security.
- Mobile learning event in Paris next week with UNESCO, in support of e-education
- E-Health, e-banking, e-payment, e-learning and any other aspect of services to push the country toward the mobile Government services.
- ICT people must continually interact with other sectors
- Improved Connectivity and accessibility monitoring
- Trans-border digital identity recognition for improved safety

Session Twelve: Gender mainstreaming

High level Track Facilitator: Ayanna T. Samuels, Aerospace Engineer & International Development Professional specializing in ICTs for Socio-Economic Development, Technology Policy and Gender-Equality. Consultant, She Leads It, Jamaica

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Ms. Doreen Bogdan-Martin, Strategic Planning and Membership Department
3. **United States of America** – Ms. Liesyl Franz, Senior Policy Advisor, Office of the Coordinator for Cyber Issues, U.S. Department of State
4. **Germany -** Dr. Uwe Petry, Head of the Economic Affairs Division, Permanent Representation of the Federal Republic of Germany to the UN in Geneva
5. **European Commission** – Ms. Maya Plentz Fagundes, Innovation Policy Advisor
6. **UN Women -** Ms. Hiba Qasas, Chief of Crisis Prevention, Preparedness and Response
7. **Italy -** Ms. Roberta Cocco, Deputy Mayor for Digital Transformation and Services to Citizens, Municipality of Milan
8. **Facebook**– Dr. Robert Pepper, Head of Global Connectivity Policy and Planning
9. **Health and Environment Program –** Dr. Madeleine Scherb, President
10. **She Loves Tech** – Ms. Virginia Tan, Founder and CEO

1. Introduction

This session was about efforts being undertaken to secure Gender Equity in the ICT Sector and balanced digital inclusion across various organizations and countries. The remarks given were within the context that the gender digital divide is one of the largest gender divides we face in the world today.

2. Vision

Across the different organizations and countries represented, the shared vision was the eradication of gender inequity through the implementation of tangible initiatives which address present challenges in the realm of digital inclusion, affordability, accessibility and readiness.

3. Key Challenges

An unlevel playfield continues to exist as it concerns the reality of men and women men across the scope of the ICT sector. The panelists did an excellent job in articulating existing challenges which must be overcome if we seek to usher in true gender equity. Some of the challenges around which we must seek to find solutions are:

1. 184 million fewer women own a mobile phone compared to their male counterparts

2. Just 2% of disbursed venture funding in the US went to Women in 2017.

3. 98 million girls are out of school and need to be re-incorporated, but the timeframe for completion of same presently is too long with current approaches being utilized.

4. 1 out of 5 girls are married which robs them of the opportunity to realize their full educational and career potential.

5. 250 million fewer women using Internet than men

6. In Europe, only 17% of IT jobs are held by women

4. Fresh Priorities & Emerging Trends

Within the context of the present persistent gender-based inequities in the ICT Sector, the following is a sample of the fresh priorities and emerging trends which were shared:

1. The Girls in ICT Day movement is continuing to evolve and will take place in 166 countries in 2018!

2. Mindfulness of the need for gender diversity yields results. The IGF has been very concerned with gender diversity and as such, they have taken the proactive step of requiring that reports of IGF sessions contain information on the number of women present and whether gender was discussed. Female participation in the 2017 IGF consequently reached 43%, compared to 39.6% in 2016, and 33% in 2015.

3. Under the German G20 presidency, the #eSkills4Girls initiative was launched. #eSkills4Girls promotes education and employment for women and girls in an ever-increasingly digital world. The initiative received much support from all G20 member states.

4. Italy has established #STEMintheCity, a project which demonstrates how cities can champion issues such as equal opportunities alongside other policies across a range of areas that are of strategic importance to its citizenry, including digital transformation, employment, and education.

It will take place in April in Milan.

5. Opportunities

1. On March 8, International Women's Day, USAID formally launched their latest women's empowerment initiative, the WomenConnect Challenge. USAID's WomenConnect Challenge will identify and accelerate solutions that bridge the digital gender divide and empower women and girls to access and use digital technology to drive positive health, education, and livelihoods outcomes for themselves and their families.

2. The annual EQUALS in Tech Awards recognize that ICTs are a powerful tool for transforming the lives of women around the world, and that women play an important role in tech development.

Nominations are now open for these Tech Awards which represents an opportunity for greater visibility for exciting Women in Tech initiatives.

3. Through She Loves Tech, Asia has been presented with a strong opportunity for women to grow their knowledge in the ICT Sector and grasp capacity building opportunities by contending within ICT competitions.

4. In Africa, ICTs remain a potent tool for change in fighting issues from violence against women to the opening up of new careers and greater development opportunities for young girls. Leapfrogging opportunities are immense given that basic concerns such as illiteracy still runs rife, with over 50% of women in 12 Sub-Saharan African countries being illiterate which disenables them from meaningful engagement in the political arena.

6. Link with the WSIS Action Lines and Sustainable Development Goals

High costs of devices and internet service, lack of digital literacy, and prohibitive social norms continue to disproportionately impact women. This reality is completely orthogonal to the objectives of the WSIS Action Lines and SDGs and as such measures to remove these barriers must continue in earnest to secure digital inclusion for all. This will ensure the best breeding ground for full socio-economic development and complete self-actualization for all. Specific links to the WSIS Action Lines which consider the SDGS, are as follows:

- Italy's #STEMintheCity initiative and USAID's Gender and ICT Survey Toolkit (which addresses the challenge of poor disaggregated data on gender at the sub-national level), support WSIS Action Lines 1 & 5
- To address education gender disparities, UN Women has established a Second Chance Education Programme through virtual schools. This addresses WSIS Action Line 3 Germany's #eSkills4Girls addresses WSIS Action Line 4
- Africa Code Week, an initiative of the German software company SAP, took place in 35 African countries in 2017. It enabled 1.3 million youth, among them more than 40% girls to write their first lines of software code. This addresses WSIS Action Lines 6 & 7

- Asias's She Loves Tech ICT Competitions support WSIS Action Lines 8 & 9.
- In Rwanda, Ghana and Indonesia, Germany supports partners in updating the quality of technical vocational education and training. Additionally, the Argentinian G20 presidency is connecting to #eSkills4Girls, and has agreed to continue the work that has been done in the Digital Economy Task Force. These initiatives support WSIS Action Line 11.
- Facebook and the Economist's work on the Inclusive Internet Index strongly supports WSIS Action Line 14, which speaks to the all-important need for follow-up and evaluation.

7. Case Examples

Some of the exciting case studies shared are as follows:

1. Within the EU, making research grants and venture capital funding available for women is a significant priority and tangible steps are being made to level the playfield in this regard.

2. Facebook in collaboration with the Economist released the Inclusive Internet Index two weeks ago which speaks to key issues re: the availability, affordability and readiness of the Internet. A key fact shared is that of the 86 countries assessed, 80% have a gender gap in favor of men.

3. The EU Parliament voted last week for the inclusion of gender in trade agreements. The EU Commission was charged to support the inclusion of a specific gender chapter in all future EU trade agreements. This will help to close the gender gap in trade and firm productivity for Women Owned Businesses.

8. Road Ahead

In order to close the gender gap the road ahead must include the following initiatives:

1. Partnerships are needed between government, the UN, the Private Sector, and Civil Society around a common framework that would be predicated on tangible steps to redress existing inequities.

2. Each party in the above partnership should freely share the initiatives they are presently working on and cross-pollinate good practices

3. Research ought to be continuous regarding access, affordability and readiness.

4. Countries that have seen significant increases in women digital inclusion have seen this result consequent to specific enabling initiatives being implemented. Proactive initiatives to address gender gaps can thus yield positive results!

5. If women are left behind we are all left behind, as such all stakeholders must ensure gender mainstreaming is infused within the governing policy of all fulcra of a functional and progressive society.

Health and Environment Program

Dr. Madeleine Scherb

President

Présenté au WSIS Forum 2018 dans le débat de Haut niveau par Dr Madeleine Scherb, Présidente de Health and Environment Program

L'Afrique taux d'alphabétisation des femmes ne dépasse pas les 50% dans plus de 12 pays d'Afrique subsaharienne. Il reste même en dessous des 20% dans certains cas. Les femmes sont freinées par des obstacles socio-culturels dans l'obtention de fonctions de leadership et de gestion. Le fossé numérique dû à la société traditionnelle africaine où la femme aurait un rôle tranché et défini à savoir celle de domestique et où elles n'ont pas le droit à la propriété et à la succession ne cesse de se creuser entre les sexes. Que représentent donc les TIC pour les femmes Africaines ?

Les TIC pour faciliter leur autonomisation en offrant un service de téléphonie mobile au village, en utilisant Internet ou en profitant des nouveaux débouchés de carrière et d'emploi.

LesTIC un outil de changement dans le combat contre la violence faite aux femmes et de l'utilité des TIC dans la redéfinition des espaces public et privé.

La révolution apportée par les technologies de l'information et de la communication (TIC) a d'importantes répercussions sur les femmes africaines, mais quels avantages tangibles a-t-elle procurés lorsque les problèmes d'inclusion et d'exclusion sociale sont généralisés ? La fracture numérique, quels enjeux et quelles perspectives?

Perspectives: Définir des nouveaux cadres d'apprentissage en rapport avec l'intégration sociale; diversifier les modes d'enseignement; mettre en oeuvre l'application des mesures sociales accompagnant l'accès aux infrastructures par une inclusion de la femme partant des compétences de base telles que l'alphabétisation….

Pour résorber l'obsolescence des TIC, mettre en place des formations pour la grande majorité de ces africaines numériquement exclues et à statut socioéconomique fragile.

En conclusion, Instaurer un organe proactif de suivi par la formation continue ou académique en y associant les organisations non gouvernementales; créer des espaces publics numériques. Autonomiser les femmes équivaut à autonomiser les sociétés dans leur ensemble. C'est l'un des fondements les plus solides à une paix et à un développement durables.

Session Thirteen: Digital Economy and Trade

High level Track Facilitator: Natalia Vicente, Head of Public Affairs, ESOA, Belgium

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Mr. Torbjörn Fredriksson, Chief, ICT Policy Section, Division on Technology and Logistics, UNCTAD.
3. **Singapore–** Mr. Leong Keng Thai, Deputy Chief Executive, Infocomm Media Development Authority
4. **VEON-** Mr. Tomas Lamanauskas, Group Director Public Policy
5. **ASIET (Asociación Interamericana de Empresas de Telecomunicación)**– Mr. Pablo Bello, Secretary General
6. **Pathfinder4 (Caribbean)**– Mr. Matthew McLarty, Co-Founder — CEO
7. **Association for Proper Internet Governance**– Mr. Richard Hill, President
8. **Kiwicampus**– Mr. Sasha Iatsenia, Head of Product
9. **Intervale -** Dr. Yury Grin, Deputy Director General
10. **African Civil Society on the Information Society -** Dr. Cisse Kane, President

Introduction

This panel had a balanced representation of stakeholders who spoke about the different challenges and opportunities that regions are facing for the development of the Digital Economy as related to bridging Digital Divides as well as the importance of data transfer, management and use.

The panel shared different figures that all highlighted that Digital Divides are still very much a reality even if there have been improvements. In the least developed countries, still only 1 out of 6 citizens use the Internet and only 1-2% use e-commerce, while in developed countries e-commerce is used by between a 60-80% of the population. Important gender inequalities also exist in the use of digital technology with 25-30% fewer women using them compared to men. Meaningful use of data is very low in different regions and different economic barriers also prevent stimulation of the economy.

In order to overcome the various challenges, the panel suggested focusing on different priorities such as building robust and resilient infrastructure, building a secure and trustworthy ecosystem for data transfer

and enhancing and supporting true collaboration between different stakeholders.

In addition, some panelists emphasized the importance of regulators and countries in developing policies that create enabling environments and promote public private investment. Data sharing & use was identified as one of the value markets that needs greatest attention and could have an important impact in the future.

Security and ease of use were also noted as key for the development of a Digital Economy, noting the importance of understanding and taking into regional differences and an inclusive approach.

There was consensus that UNCTAD together with the ITC and the EU will have a key role to play as facilitators of Action line 7. The discussion was directly relevant to Action line 7 (E-business) and Action line 5 (Building confidence and Security in the Use of ICTs). However, Action line 2 (Information and communication infrastructure) and Action line 6 also have great relevance to the ability to achieve specifically SDG 8 which promotes inclusive and sustainable economic growth, employment and decent work for all, SDG 9 on building resilient infrastructure, promoting sustainable industrialization and fostering innovation, SDG 10 on reducing inequalities within countries and SDG 1 on Ending poverty.

Different initiatives that help the digital economy in world regions were mentioned. They include:

- **eTrade for all** is a common online platform providing information across policy areas to support developing countries more effectively and efficiently
- **SMEs go digital** from Singapore helps SMEs adopt technology and transform the way they do business
- The **E-commerce conference** in Geneva was mentioned because it will address how ecommerce will transform society.
- The **open data initiative** enables different actors to benefit from data-sharing
- The ITU Special group on Digital Financial services and Group on Digital Currency are also very useful.

All panelists agreed that even if there are challenges ahead, collaboration between stakeholders and communication and sharing of best practices will contribute to the benefit of all citizens and the achievement of the SDGs.

Singapore

Mr. Leong Keng Thai

Deputy Chief Executive
Infocomm Media Development Authority

Mr. Chairman His Excellency Eng. Majed Sultan Al Mesmar

Mr. Secretary-General Mr. Zhao Houlin

Honourable Ministers, Excellencies,

Ladies and Gentlemen,

On behalf of Singapore, I would like to first express our utmost appreciation to the International Telecommunication Union (**ITU**), United Nations Educational, Scientific and Cultural Organisation (**UNESCO**), United Nations Development Programme (**UNDP**), United Nations Conference on Trade and Development (**UNCTAD**) and the various United Nations organisations for the relentless efforts in bringing together government officials, experts, civil society leaders, academics, business leaders and international organisations for the World Summit on Information Society (**WSIS**) Forum 2018. In Singapore's view, the WSIS Forum has without doubt continued to be the key global multi-stakeholder platform in advancing sustainable development through the use of Information and Communication Technology (**ICT**).

2 The world is experiencing a new era of digitalisation, impacting the way we work and live. And in recent years, the ubiquity of digital technologies has also led to the development of the Digital Economy which has attracted the attention of policymakers all around the world. This development is not surprising given the increasing adoption of sophisticated digital technologies that has empowered both businesses and individuals. Recognising this, it is Singapore's belief that governments must work even more closely with all stakeholders to co-create the future and improve the quality of life of our citizens.

3 I would like to take this opportunity to share Singapore's view on how governments can help facilitate the development and success of the Digital Economy. In our view, there are three important areas which governments should focus on – a robust and resilient ICT infrastructure serving as the foundation for digital interactions and transactions to take place; putting in place enabling policies and develop a strong workforce with deep tech capabilities; and lastly, building an environment of trust where data flows freely between borders and stakeholders have the confidence that the data would be protected and used responsibly. I will elaborate each of these areas below.

Robust and Resilient ICT Infrastructure

4 To support the growth of the Digital Economy, there is a need to establish fast and pervasive connectivity through building a reliable and resilient digital infrastructure that spurs innovation, supports positive disruptions and enables data flows. Governments need to adopt open and progressive regulatory frameworks that would continue to facilitate investment in digital infrastructure such as data exchange platforms, next generation broadband networks and new wireless technology such as 5G. In Singapore, the Infocomm Media Development Authority (**IMDA**) has begun seeking industry feedback to help build the spectrum roadmap and regulatory frameworks for 5G that would best address market needs. IMDA will also facilitate 5G technology and service trials by the industry till end-2019 after the release of the first phase of 5G standards, which is expected to be in mid-2018.

5 There is also the growing importance of submarine cable connectivity to deliver high-speed, resilient international connectivity and facilitate cross-border data flows. This requires strong partnerships and collaborations across different stakeholders to open up new markets, develop new cable routes and protect existing ones. For example, the Association of Southeast Asian Nations (**ASEAN**) has embarked on several initiatives to strengthen the resilience of submarine cable networks and to facilitate faster service restoration time.

6 While infrastructure is widely recognised as the backbone of the digital economy, data is acknowledged as the unlimited resource that fuels its growth. Driven by the wide adoption of digital technologies such as cloud computing and data analytics, the digitalisation of trade and the resultant increase in data flows has resulted in the evolution of global trade from the traditional movement of goods and services. In this changing landscape, countries would need to re-imagine and re-shape themselves as a "platform" to harness the economic benefits of digital trade.

7 In Southeast Asia where the region continues to be the fastest-growing Internet economy with the potential to exceed US$200 billion by 2025[1], Singapore is working with the ASEAN Member States to streamline regional trading rules governing e-commerce to enhance digital connectivity and to support seamless economic activities. It is hoped that this will provide greater internationalisation opportunities such as easier access to new markets and overseas customers for enterprises of all scales and sizes.

[1] According to the Google-Temasek e-Conomy SEA Spotlight 2017 report released in December 2017.

Sectoral Digital Transformation and Manpower Development

8 To help traditional sectors digitalise, governments have a key role to play in coordinating economy-wide transformation and addressing cross-sectoral issues. To this end, Singapore has developed the **Industry Transformation Maps (ITMs)** for 23 sectors, detailing the plans to address digital issues within each sector and enhance partnerships among various stakeholders for our future economy. Keeping in mind that talent is a key asset in resource-scarce Singapore, we have also detailed the manpower and skills development strategies for ICT as part of the ITM for the Infocomm Media or ICM sector, with the aim to develop talent with tech knowledge so as to power the digital transformation across different sectors. More importantly, we want to ensure that all Singaporeans, regardless of age, genders and income, are equipped with the relevant skills to seize job opportunities in the digital age.

9 An example of this effort is the **TechSkills Accelerator (TeSA)** initiative developed by IMDA to support individuals and companies to develop a pool of skilled ICT talents. Till date, TeSA has empowered over 27,000 ICT professionals to up-skill and/or re-skill themselves. Further, IMDA launched the **Skills Framework for ICT** which provides career information on the ICT sector, including career pathways, job roles, skills, competencies and training programmes. The Framework charts out the core competencies for ICT professionals across different sectors and identifies about 80 existing and emerging skills and competencies. This means that employers or individuals in non-ICT sectors, such as finance, retail and logistics, can also use the Framework to identify and address skills gaps and training needs. With this repository of information, we hope that individuals, employers and training providers are enabled to prepare for the digital future through career planning, human capital development and training.

10 Besides equipping our people with the right skills, another key focus area for Singapore is to help Small and Middle Enterprises (**SMEs**) digitise. Sectoral digitalisation would not be successful if SMEs are averse to digital technologies and innovation or suffer from the lack of awareness and expertise to apply digital solutions to grow their businesses. In Singapore, we are making digitalisation simple for SMEs through the **SMEs Go Digital programme**[2]**,** which was launched last year. The progress so far has been encouraging, with more than 650 SMEs benefited from the programme. Under the programme, IMDA develops sector-specific **Industry Digital Plans for SMEs (IDPs)** to provide step-by-step guidance to SMEs

[2] There are four key thrusts under the SMEs Go Digital programme – (i) Industry Digital Guide (for SMEs to understand where they are on the digitalisation roadmap); (ii) Pre-approved digital tech solutions and/or digital advisory and consultancy (for SMEs to gain access to digital technology and advisory services); (iii) Projects to uplift whole sectors (for SMEs to enjoy accelerated growth through partnering large companies and industry sectors); and (iv) Skills Framework (for SMEs to raise digital skills of their employees).

on the use of digital technology at each stage of their growth. We have launched the Retail and Logistics IDPs last November and aim to develop more this year. SMEs can refer to the IDPs to easily deploy digital technology through IMDA pre-approved digital solutions and industry-led pilot projects with the potential to uplift the whole sector. This will help SMEs to boost their productivity and build important digital capabilities such as in cybersecurity and data analytics. SMEs can also receive advice on the digital technology use at **SMEs Centres** and more specialised consultancy at the **SME Digital Tech Hub**.

Building Trust in Data Flows

11 As the production and consumption of digital products and services grow, businesses will want to leverage on technology and digitalisation to expand into new markets, deliver new products and services to consumers. Key to the beauty, and the benefit of digital platforms is the borderless nature of such technological developments. Imagine the amount of data generated, the data flows and potential valuable insights the data can provide to businesses as a result of such inter-connectivity. Understandably, increasing digitalisation is not without challenges – such as concerns over data security and the protection of personal data. On a similar note, the digital economy thrives better if data were able to flow freely with minimal restrictions, but it must be coupled with the assurance that safeguards are in place to protect and secure the information. There is a need to put in place necessary frameworks to strengthen digital data flow and management capabilities of governments and businesses around the world, for instance adopting high standards of data protection and security. These frameworks should also strongly advocate and support innovation and consumer protection.

12 We are also fostering such positive beliefs on data governance closer to the region, this year, ASEAN has started the development of a regional **ASEAN Framework on Digital Data Governance** to further facilitate regional economic integration and regulatory compliance in support of the Digital Economy. The Framework will play a critical role in providing business certainty in digital adoption and innovation, as well as build good data protection standards when the data moves across borders or operates in a digitalised environment within ASEAN.

13 Beyond ASEAN, Singapore also participates actively in international foras to enable digital flows such as the Asia-Pacific Economic Cooperation (**APEC**) Cross Border Privacy Rules (**CBPR**) System which was developed to support cross-border flows of personal data. The APEC CBPR is a uniform system for businesses to transfer data across participating Economies, instead of having to comply with multiple systems of domestic laws when operating in multiple APEC Economies. CBPR also provides an assurance that certified businesses adhere to internationally-approved data protection standards and requirements.

14 In Singapore, the Personal Data Protection Commission (**PDPC**) has started to explore future-ready enhancements to the Personal Data Protection Act (**PDPA**) which was enacted in 2012 to allow for a more progressive approach to collecting, using and disclosing personal data in the Digital Economy, while providing greater transparency when data breaches occur through online activities and transactions. One such effort is the **Guide to Data Sharing** launched by PDPC to provide clarity on how organisations can share personal data for collaborations and provide enhanced services to their customers. The Guide also includes the introduction of a regulatory sandbox that allows organisations to apply for data sharing arrangements that would be exempted from one or more obligations under the PDPA on a case-by-case basis. The regulatory sandbox allows companies with new ideas to go to market and for the Government to better understand industry needs and to fine-tune proposed amendments to the PDPA.

15 Another important aspect is that of cybersecurity. This requires a collective effort among all the various stakeholders to ensure that the global ICT infrastructure and network remain resilient against cyber-attacks which undermine trust in the Digital Economy. In this regard, Singapore has been participating actively in the global dialogue on cybersecurity and contributing to the building of trust in the ICT environment. Singapore has also developed an **Infocomm Security Masterplan** and established a dedicated Cyber Security Agency (**CSA**) to address the challenges of cybersecurity. In February 2018, Singapore passed the **Cyber Security Bill** which authorises the CSA to prevent and respond quickly to cybersecurity threats and incidents, and sets out the designation of Critical Information Infrastructures (**CIIs**), duties of CII owners and requirements of the licensing regime. The measures and requirements under the Bill are non-intrusive with respect to personal privacy, and are mainly technical, operational or procedural in nature. This “light-touch” approach is to strike a good balance between industry needs and cybersecurity in the Digital Economy.

Conclusion

16 The global ICT community needs to form new partnerships and develop innovative approaches so as to harness the full potential of the Digital Economy as well as to address challenges that digitalisation may bring. Singapore hopes that by sharing our experience, we can collectively co-create a common digital future and jointly contribute to the WSIS Action Lines and achievement of all 17 Sustainable Development Goals (**SDGs**).

ASIET (Asociación Interamericana de Empresas de Telecomunicación)

Mr. Pablo Bello

Secretary General

Desde la Asociación Interamericana de Empresas de Telecomunicaciones agradecemos a la UIT la oportunidad de poder compartir nuestra visión sobre este importante asunto.
El desarrollo de la Economía Digital en América Latina presenta una serie de requerimientos que condicionan las iniciativas a desarrollar. Los cimientos se basan en la necesaria existencia de una infraestructura digital de clase mundial y en el cierre de la Brecha Digital que aún existe en la región, donde la mitad de los ciudadanos aún no usa internet. . Por tanto, en aquellos países con un menor grado de desarrollo el primer cometido debe ser facilitar el acceso de los ciudadanos que no están conectados, y el despliegue de la infraestructura que servirá como base para el posterior avance de nuevas aplicaciones y servicios. Cerrar la Brecha Digital y tener una infraestructura de telecomunicaciones acorde con las necesidades presentes y futuras son condiciones necesarias, pero no suficientes para el desarrollo de la economía digital regional. Además, debemos favorecer el uso de esa infraestructura para la transformación productiva.

En ASIET, como representantes de los operadores - públicos y privados - de telecomunicaciones de América Latina, creemos que disponer de un entorno adecuado es esencial para el objetivo de cerrar definitivamente la Brecha Digital, y para permitir a la vez un desarrollo efectivo de la Economía Digital que nos lleve a alcanzar los beneficios económicos y sociales de la Sociedad de la Información; y, consecuentemente para el logro de los Objetivos de Desarrollo Sostenible (ODS).

A nivel global, a finales de 2016, se contabilizaban 3.200 millones de personas que utilizaban Internet, lo que representa aproximadamente el 47% de la población mundial. El acceso a Internet es un catalizador del bienestar económico y social, de ahí la necesidad de conectar el restante 53% de la población y así aprovechar todo el potencial disruptivo y transformador de Internet.

Para lograr lo planteado resulta fundamental incentivar la innovación, la construcción y desarrollo de las Tecnologías de la Información y la Comunicación (TIC), e impulsar adecuadamente el despliegue de la infraestructuras necesaria. Esto requiere actualizar con urgencia y diligencia los marcos legales y regulatorios de los diferentes Estados, así como sus actuales estrategias nacionales, para adaptarlos al nuevo escenario de la convergencia.

Entendiendo el Ecosistema Digital actual, atendiendo a los cambios que han producido las diferentes disrupciones tecnológicas y de mercado, y olvidando antiguos dogmas regulatorios es como conseguiremos impulsar y sostener las inversiones necesarias para el despliegue masivo de la infraestructura de nueva generación que demandan las tecnologías que vienen como el 5G o el Internet de las Cosas. Esta es la palanca clave para fomentar la digitalización para la transformación productiva de América Latina, impulsando, el emprendimiento local y la innovación con talento latino.
No debemos olvidar que aunque en nuestra región se han logrado importantes avances en conectividad, uno de cada dos latinoamericanos no accede a Internet, y que la brecha digital es la brecha de la pobreza; el 50% no conectado, es el 50% **más pobre**. Cerrar todas las brechas digitales -también la existente entre quienes viven en el mundo urbano y el rural, y las relativas a edad y género- es un imperativo ético que debemos acometer con urgencia, para evitar además que surjan y aumenten nuevas brechas, como la que apunta al crecimiento de la desigualdad con el mundo desarrollado respecto al número de dispositivos conectados. Esta creciente brecha en el IoT puede significar importantes diferencias en cómo las sociedades se benefician de las externalidades positivas de Internet y de las nuevas generaciones de la transición digital (M2M), América Latina corre el riesgo de llegar tarde a la transformación productiva de la revolución digital, como pasó con la revolución industrial.

En el informe publicado por el Centro de Estudios de Telecomunicaciones de América Latina (cet.la), 'Desafío 2020. Inversiones para reducir la Brecha Digital en América Latina[3]', se estimaba el valor de las inversiones necesarias en redes fijas y móviles para que once países de la región redujeran al máximo la distancia que los separaba de los países más desarrollados, en términos de penetración de servicios de comunicaciones. El estudio concluía que la inversión necesaria para cerrar la brecha digital en el conjunto de la región estaría en torno a los **400.000** millones de dólares, entre 2013 y 2020. Apuntando a un imprescindible aumento de las inversiones en infraestructura por encima del crecimiento esperado.

Sin embargo, los objetivos mencionados se tornan de difícil cumplimiento si analizamos el complejo escenario en el que se encuentra el sector. a reducción de precios ha tenido un impacto en el perfil económico del sector, cada vez hay una mayor demanda de las redes con un crecimiento exponencial del tráfico de datos l - se espera que en el periodo 2016-2021 se multiplique por 7-; esto unido a los bajos niveles de retorno(ARPU) que tiene América Latina comparada con los países desarrollados. ARPU móvil de nuestros países muestran una tendencia decreciente (pese a escenario de compensación derivado del mayor uso de datos móviles) a consecuencia de un menor crecimiento económico, el aumento de las presiones competitivas de actores como los OTT, y mayores cargas regulatorias, especialmente enfocadas

[3] *Desafío 2020. Inversiones para cerrar la brecha digital en América Latina*
http://cet.la/estudios/cet-la/resumen-ejecutivo/

en los jugadores tradicionales, que ponen el acento en la recaudación. Ante este entorno es esencial actualizar los marcos normativos para promover las inversiones necesarias. Las regulaciones y cargas de contraprestación tienden a incrementar costos asociados a la inversión y operación de las redes de telecomunicaciones, por ello, se necesita un marco regulatorio estable, convergente y propicio, con visión de largo plazo que garantice un entorno dinámico y competitivo para todos los actores del ecosistema, y que incentive la inversión y la innovación. Además, son fundamentales niveles tributarios simples y moderados. La carga impositiva para las telecomunicaciones en América Latina (12.12%) es la más alta si la comparamos con. otros sectores claves para la economía como la energía o el transporte, como expone el Dr. Raúl Katz[4] en el informe Retornos y Beneficios generados por el Sector de las Telecomunicaciones en

América Latina (cet.la 2017). El estudio estima que una reducción del 1% en el pago de impuestos, generaría un aumento de 0,85 dólares de inversión per cápita. Adicionalmente a esto existe una asimetría entre la carga impositiva de los jugadores OTT y los jugadores tradicionales, que efectivamente actúan en el mercado como competidores ofreciendo servicios sustitutos (telefonía, mensajería…). Finalmente, son imprescindibles también normativas que faciliten el despliegue físico de infraestructuras en las diferentes localidades; y, por supuesto, unas política de espectro que planteen asignaciones en un horizonte planificado, estable y razonable, en el que las empresas compitan por objetivos de inversión y cobertura (beauty contest); contrariamente al actual enfoque recaudatorio.

Como conclusión, el desarrollo del Ecosistema Digital, y por ende de la Economía Digital, adquiere especial importancia en América Latina, donde la productividad ha sido identificada en numerosos trabajos como una de las principales barreras hacia el desarrollo y el sostenimiento del crecimiento en niveles elevados. A nivel regional supone un reto que va más allá de las fronteras nacionales y de los ordenamientos particulares de cada país, si se quiere una Economía Digital a nivel regional es **necesario** trabajar conjuntamente en la creación de unas **condiciones de contorno** que la hagan posible.

Para esto resulta esencial que existan unas reglas del juego equilibradas que favorezcan la inversión y la innovación en redes y en contenidos, aplicaciones y servicios digitales. Hoy por hoy no hay una definición de política coherente y equilibrada para el Ecosistema Digital, existiendo una sobrerregulación para las operadoras de telecomunicaciones que implican serios desequilibrios en materia tributaria; junto a una

[4] *Retornos y Beneficios generados por el sector de las telecomunicaciones en América Latina.* *http://cet.la/estudios/cet-la/retornos-beneficios-generados-sector-las-telecomunicaciones-america-latina/*

fuerte asimetría para servicios sustitutos dependiendo de la forma en la que se proveen, por lo que hay que caminar hacia la neutralidad tecnológica; además, hay que atender los desafíos de la jurisdicción que requieren resolverse. El Ecosistema Digital debe ser un espacio abierto, competitivo y sostenible, que favorezca la innovación y la competencia a través de toda la cadena de valor; con un marco regulatorio liviano y flexible que sea adaptable al contexto dinámico del ecosistema y que facilite los incentivos a la innovación en todo el Ecosistema Digital la flexibilidad y facilidad para propiciar el despliegue de infraestructuras (cierre de brecha de cobertura, ampliar capacidad de redes); y la flexibilidad para el desarrollo de ofertas comerciales. Es sencillo, l marco regulatorio debe ser neutral, basándose en el principio del *evel playing field* , mismos servicios, mismas reglas.

Desde ASIET consideramos que si se toman en cuenta las apreciaciones que se manifiestan en esta declaración pueden ser de gran ayuda para que la región consiga superar la Brecha Digital y desplegar las infraestructuras necesarias para lograr una Economía Digital efectiva, dinámica y vibrante que le permita avanzar a la par que otras regiones más avanzadas, contribuyendo al crecimiento económico y a la reducción de la desigualdad.

ACERCA DE ASIET: *La Asociación Interamericana de Empresas de Telecomunicaciones (ASIET) nació en 1982 con el nombre de AHCIET y está conformada por empresas públicas y privadas del sector de telecomunicaciones de los países del continente americano. Trabajamos para el desarrollo de las telecomunicaciones y la Sociedad de la Información en nuestra región a través del diálogo público-privado, promoviendo el crecimiento de la industria y favoreciendo el intercambio de conocimientos y buenas prácticas, velando por el interés común de nuestros socios y la industria*

Association for Proper Internet Governance

Mr. Richard Hill[5]

President

Why should data flow freely?

Summary

The principle that data should be borderless and that it should flow freely is a policy decision that has profound effects. Some base that principle on the idea that data is a commodity that should be freely traded.

But the idea that data should flow freely does not actually flow logically from the idea that data is a commodity: commodities are taxed and the producers of raw material are compensated for providing that material to the industries that transform it and add value to it.

Further, the idea that data is a commodity to be freely traded contradicts fundamental human rights.

And the benefits of free flow of data have been overstated: indeed free flow of data likely increases income inequality.

There is no obvious justification for policies favouring the free flow of data other than to allow OTTs to continue to accumulate huge profits (often monopoly profits) by extracting and refining data, without paying taxes and without compensating the users who produce the data in the first place.

As a consequence, there should be a moratorium on negotiations regarding the free flow of data.

Background and Introduction

On 25 May 2017 Council decided that Open Consultations for the CWG-Internet would be convened on the following issue:

Considering the rapid development of information and communications technology (ICT) which led to the advent of Internet-based services commonly known as “over-the-top” (hereafter: OTT), all stakeholders are invited to submit their inputs on the following key aspects from policy prospective:

1. What are the opportunities and implications associated with OTT?

2. What are the policy and regulatory matters associated with OTT?

3. How do the OTT players and other stakeholders offering app services contribute in aspects related security, safety and privacy of the consumer?

4. What approaches which might be considered regarding OTT to help the creation of environment in which all stakeholders are able to prosper and thrive?

5. How can OTT players and operators best cooperate at local and international level? Are there model partnership agreements that could be developed?

1. What are the opportunities and implications associated with OTT?

It is obvious that personal data has great value when it is collected on a mass scale and cross-referenced.[6] The monetization of personal data drives today's OTT/Internet services and the provision of so-called free services such as search engines.[7]

Thus issues related to the flow of data have major implications for OTT's.

2. What are the policy and regulatory matters associated with OTT?

We examine below the policy and regulatory matters related to the flow of data which, as noted above, are matters associated with OTTs, because OTTs cannot thrive without data flows.

Some, in particular certain types of businesses and certain developed states, appear to base much discussion, and some decisions, on an implicit (or explicit) principle that data should flow freely. That principle appears to be derived from other implicit (or explicit) principles, including "the Internet is

[6] See for example pp. vii and 2 of the GCIG report, available at: http://ourinternet.org/sites/default/files/inline-files/GCIG_Final%20Report%20-%20USB.pdf . Henceforth referenced as "GCIG". See also 7.4 of http://www.oecd-ilibrary.org/taxation/addressing-the-tax-challenges-of-the-digital-economy_9789264218789-en ; and http://www.other-news.info/2016/12/they-have-right-now-another-you/ ; and the study of data brokers at: https://www.opensocietyfoundations.org/sites/default/files/data-brokers-in-an-open-society-20161121.pdf ; https://www.internetsociety.org/blog/public-policy/2017/03/my-data-your-business ; http://www.economist.com/news/leaders/21721656-data-economy-demands-new-approach-antitrust-rules-worlds-most-valuable-resource

[7] http://www.theatlantic.com/technology/archive/2014/08/advertising-is-the-internets-original-sin/376041/ and 7.4 of the cited OECD report; and http://www.other-news.info/2016/12/they-have-right-now-another-you/ and https://www.internetsociety.org/blog/public-policy/2017/03/my-data-your-business

borderless, and so is data associated with the Internet" and/or "data is just another commodity, and so should not be subject to restrictions on trade".

The statement "the Internet is borderless" has no meaning. A correct statement is "some aspects of the Internet are not tied to national borders, for example many domain names and most IP addresses are not allocated on a national basis."

It is not contested that offline law applies equally online. So a meaningful statement would be "what national and international laws are appropriate for the Internet, and is there a need to change existing laws?"

It is in this context that there are calls to treat data as a commodity that should not be subject to trade restrictions.

In section 2.1 below we consider the idea that data is a commodity, and show that the implications of that idea are that data should be taxed and that users should be adequately compensated for the data that they provide.

However, in section 2.2 below, we show that this idea is false: data is not a commodity and cannot be treated as such.

2.1 Data as a commodity

A propensity by some to advocate in favor of the principle of the free flow of data was clearly illustrated in the workshop on "Data Localization and Barriers to Cross-Border Data Flows"[8] held at the 2017 WSIS Forum. The description of that workshop includes the following:

There is growing debate about the spread of national data localization restrictions and barriers to Cross-Border Data Flows (CBDF). Localization policies include requirements such as: data must be processed within a national territory, and involve a specific level of "local content," or the use of locally provided services or equipment; data must be locally stored or "resident" in a jurisdiction; data processing and/or storage must conform to unique national standards; or data transfers must be routed largely or solely within a national or regional space when possible. In addition, in some cases, data transfers may require government approval based on certain conditions, or even be prohibited. Governments' motivations for establishing such policies vary and may include e.g. promoting local industry; protecting (nominally, or in

[8] https://www.itu.int/net4/wsis/forum/2017/Agenda/Session/272#intro

reality) the privacy of their citizens, and more broadly their legal jurisdiction; or advancing national security or an expansive vision of "cyber-sovereignty."

The stakes here are high. McKinsey has estimated that data flows enabled economic activity that boosted global GDP by US $2.8 trillion in 2014, and that data flows now have a larger impact on growth than flows of traded goods. The growth of localization measures and barriers to CBDF could reduce these values and impair not only business operations but also vital social processes that are predicated on the flow of data across the Internet. Hence, language limiting such policies has been included in a number of trade agreements, including the TPP and the proposed TTIP and TiSA. It also is possible that at least some of the policies in question are inconsistent with governments' commitments under the WTO's GATS. But the extent to which these issues should be addressed by trade instruments remains controversial, with many in the global Internet community and civil society remaining critical of non-transparent intergovernmental approaches to the Internet, and many privacy advocates opposing the application of trade rules to personal data.

This workshop will take stock of the growth of data localization measures and barriers to data flows and assess the impacts of these trends; consider what can be achieved via international trade instruments in the current geopolitical context; and explore the possibility of a parallel track of multistakeholder dialogue and norm setting that is balanced and supported by diverse actors. It will consider whether normative approaches involving monitoring and reporting could help to ensure that data policies do not involve arbitrary discrimination or disguised digital protectionism, and do not impose restrictions greater than what is required to achieve legitimate public policy objectives.

We stress here the last sentence above "do not impose restrictions greater than what is required to achieve legitimate public policy objectives".

This raises the question: who will decide what public policy objectives would not be legitimate? During the workshop, it was made clear that the legitimacy of restrictions, and of public policies themselves, would be made by arbitration panels under the WTO or related agreements. That is, the intent is to subordinate decisions made by national parliaments and national governments to the opinion of a panel of international jurists regarding whether or not those decisions are "legitimate" in light of the provisions of treaties such as TPP, TISA, etc.
But why should trade agreements be given primacy over other international instruments, in particular those regarding human rights? Some recognize that trade is not the only, or even the pre-eminent, matter to be considered.

For example, at the 2017 WSIS Forum High-Level Policy Session on "Digital Economy and Trade"[9], H.E. Mr. Julian Braithwaite, UK Ambassador and Permanent Representative to the United Nations and Other International Organisations in Geneva, stated:

There are two big public policy challenges on digital the first is over data and as the Internet is so important for wider public policy the regulatory response to that, child protection online, cybersecurity, privacy is to regulate in a way to apply online the laws you that are applied offline. Putting your arms in a data in a national jurisdiction. This may be the right response for that particular public policy issue but the unintended consequence of that is you close down data flows internationally and you potentially break up this extraordinary advantage of the Internet providing as a global platform. How one achieves the wider public policy goals which involve the safe, responsible use and sharing of data while maintaining the cross-border flows that are the things that lead to the advantages, that's the first question.

According to this view, cross-border flows are always beneficial, so it is important to consider the disadvantages that might result if cross-border data flows are restricted, for example to protect privacy.

However, it is not obvious that cross-border flows are always beneficial. Reacting to the above statement, and to and other statements, a staff member of the European Commission stated, speaking in a private capacity:

I wanted to raise a word of caution from the European Commission, I will talk in my personal behalf as an economist. You introduced this session saying there is a wide consensus that broadband will grow, jobs, et cetera.

I would say that's not 100% true. There is increasing evidence and papers, other international organizations saying that technologies are increasing inequality and in the long run thus is a cause of slowing growth. This is an important point. The enthusiasm that's tried to be here for the new technology should probably be kind of moderated if we think about the Sustainable Development Goals. So the thing is, probably on the Agenda of the international organization it should not only be data trade, common rules for access to data, et cetera, but also some other very hot issues like taxation of multinationals, migration problems, et cetera which are closely related to evolution of digital technologies.

[9] https://www.itu.int/net4/wsis/forum/2017/Agenda/Session/287#intro The transcript is at: https://www.itu.int/net4/wsis/forum/2017/Content/Uploads/DOC/3490e121a88547aea5502d3f5cba96a9/Captioning_287.pdf

Indeed, if data is considered to be a commodity, subject to trade facilitation rules, then why isn't it considered a commodity also from the point of view of taxation? And why aren't the producers of the raw material (the end-users who provide the data) fairly compensated for their production?

Data in the OTT context has often been compared to oil. Nobody expects the owners of the ground in which there is crude oil to provide the crude oil for free to the companies that refine it, add value to it, and sell the products derived from crude oil. And nobody expects the flow of oil to escape taxation.

So there is a fundamental inconsistency here: if one argues that data should be treated as a commodity, because it is valuable when it is combined with other data, then one cannot simultaneously argue that it cannot be taxed and that end-users should provide their personal data without adequate compensation.

Of course users are, at present, compensated for their data because they receive so-called "free" services, such as social networks, search engines, etc. But the value of those services is far less than the value of the data, as can be seen from the fact that the OTT providers are extremely profitable: in fact, far more profitable than other extractive industries. Thus users do not receive adequate compensation for the raw material that they provide: their personal data.

2.2 Data is not a commodity

But personal data is not a commodity like any other commodity: it is related to a person's private life and thus to his or her human rights.

The Universal Declaration of Human Rights provides in its Article 12:

No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

Thus it is up to the law (meaning national law) to define what is an "arbitrary" interference with a person's privacy. Many states, in particular in Europe, have enacted, and enforce, laws regarding the protection of personal data.

Since those laws implement the human right to privacy, they take priority over other laws. Consequently, data is not a commodity like oil, because data can only be processed in accordance with laws that protect personal data, and the privacy of the people to whom the data relates.

Further, the Universal Declaration of Human Rights provides in its Article 22:

Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.

As noted above, data is a valuable resource: OTT's derive their profits from extracting and refining data.

People have the right to realize the economic rights needed for their dignity and the free development of their personality. That right includes the right to be adequately compensated for the value of the data that is provided to OTT providers, both individually, and as residents of a state, through taxation of data flows.

2.3 Trade negotiations

Past and current trade negotiations have resulted (or are likely to result) in agreement on provisions that place restrictions on the ability of states to restrict data flows.

For example, Article 14.11 of the Trans-Pacific Partnership (TPP), which is now thankfully irrelevant (a development for which we must thank US President Trump) includes the following provisions[10]:

2. Each Party shall allow the cross-border transfer of information by electronic means, including personal information, when this activity is for the conduct of the business of a covered person.

3. Nothing in this Article shall prevent a Party from adopting or maintaining measures inconsistent with paragraph 2 to achieve a legitimate public policy objective, provided that the measure:

(a) is not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade; and

(b) does not impose restrictions on transfers of information greater than are required to achieve the objective.

What will prevent a state from arguing that taxation of data is a disguised restriction on trade, which is not required to achieve a legitimate public policy objective?

[10] https://ustr.gov/sites/default/files/TPP-Final-Text-Electronic-Commerce.pdf

Or from arguing that data localization requirements, thought to be necessary to protect privacy, are a disguised restriction on trade, which is not required to achieve a legitimate public policy objective?

Recall that disputes regarding the interpretation and implementation of trade agreements are not decided by national courts. They are decided by arbitration panels composed of international jurists.

Thus national measures regarding data flows can be overturned even if they have been democratically decided by a national parliament.

This appears to us to be a violation of the human right to take part in the conduct of public affairs, as provided in Article 25 of the International Covenant on Civil and Political Rights (and also in Article 22 of the Universal Declaration of Human Rights).

Leaked[11] versions of the documents being discussed in the context of the Trade in Services Agreement (TISA) indicate that provisions similar to (or even worse than) those of TPP are being negotiated at present.

This must stop. As two experts put the matter[12]:

One must wonder whether this [trade negotiations regarding e-commerce] will be an opportunity to foster digital rights or leave us with even lower standards and a concentrated, quasi-monopolistic market benefiting from public infrastructure. The rhetoric of opportunities for the excluded – connecting the next billion – sounds great, but only if we disconnect it from the current realities of the global economy, where trade deals push for deregulation, for lower standards of protection for the data and privacy of citizens, where aggressive copyright enforcement risks the security of devices, and when distributing the benefits, where big monopolies, tech giants (so called GAFA) based mostly in the US, to put it bluntly, take them all.

...

[11] The TISA negotiations are secret (as are other trade negotiation): even members of parliament have been denied access to negotiating texts. The discussion of such matters in secret forums is a blatant contradiction of the principles of transparency and multi-stakeholder participation. For that reason alone, these negotiations must be stopped.

[12] https://www.opendemocracy.net/digitaliberties/renata-avila-burcu-kilic/new-digital-trade-agenda-are-we-giving-away-internet

Never before has a trade negotiation had such a limited number of beneficiaries. Make no mistake, what will be discussed there, with the South arriving unprepared, will affect each and every space, from government to health, from development to innovation going well beyond just trade. Data is the new oil – and we need to start organizing ourselves for the fourth industrial revolution. The data lords, those who have the computational power to develop superior products and services from machine learning and artificial intelligence, want to make sure that no domestic regulation, no competition laws, privacy or consumer protection would interfere with their plans.

Disguised as support for access and affordability, they want everyone to connect as fast as they can. Pretending to offer opportunities to grow, they want to deploy and concentrate their platforms, systems and content everywhere in the world. Enforcement measures will be coded in technology, borders for data extraction will be blurred, the ability to regulate and protect the data of citizens will be disputed by supranational courts, as local industries cannot compete and local jobs soar. If we are not vigilant, we will rapidly consolidate this digital colonisation, a neo-feudal regime where all the rules are dictated by the technology giants, to be obeyed by the rest of us.

2.4 Conclusion

The principle that data should be borderless and that it should flow freely is a policy decision that has profound effects. As shown above, it does not flow logically from the idea that data is a commodity, it contradicts the human right to privacy, and its economic benefits have been overstated (indeed, free flow of data is likely increasing income inequality).

There is no obvious justification for policies favouring the free flow of data other than to allow OTTs to continue to accumulate huge profits (often monopoly profits) by extracting and refining data, without paying taxes and without compensating the users who produce the data in the first place.

As a consequence, there should be a moratorium on negotiations regarding the free flow of data.

Session Fourteen: Knowledge societies, capacity building and e-learning / Media

High level Track Facilitator: Mr. Alfredo M. Ronchi, EC MEDICI Framework of Cooperation

High level Speakers:

1. **Chairman of WSIS Forum**
2. **WSIS Action Line Facilitator ITU** – Dr. Cosmas Zavazava, Chief of Department, Projects & Knowledge Management, Telecommunication Development Bureau
3. **Mauritius –** H.E. Mr. Yogida Sawmynaden, Minister, Ministry of Technology, Communication and Innovation
4. **Rwanda**– H.E. Mr. Jean de Dieu Rurangirwa, Minister, Ministry of Information Technology and Communications (MiTEC)
5. **Ukraine** – H.E. Mrs. Emine Dzhaparova, First Deputy Minister, Ministry of Information Policy
6. **United Arab Emirates** - Mr. Ali Al Yafei, ICT Minister Advisor, Ministry of Education
7. **Centro de Estudios Avanzados en Banda Ancha para el Desarrollo (CEABAD)-** Mr. Sungnam Choi, Program Director
8. **EDACY**– Mr. Temitope Ola, Founder and CEO
9. **AIESEC**– Mr. Abdelrahman Mohamed, Global President of AIESEC International (Netherlands)
10. **Evolution of Mind, Life and Society Research Institute (EMLSRI)-** Dr. Yohko Hatada, Founder and Director

Abstract

This session embraces a wide range of relevant topics connected by a fil rouge: from education and capacity building the media and knowledge society. The contribution of the distinguished speakers covered the different aspects providing an insight on information and communication in critical environment such as in Ukraine as well as capacity building and employment in Central America passing through the challenge to keep capacity building at the same pace of innovation in the United Arab Emirates. More in detail the specific contribution provide by the panellist are:

1. **Mauritius - Mr. Yogida Sawmynaden, Minister of Technology, Communication and Innovation**

a. How do you see the evolution of the ICT sector with the emergence of knowledge societies and the accompanying challenges?

b. How is your country addressing the skills mismatch problem?

SDG 4 QUALITY EDUCATION

Mr. Yogida Sawmynaden In 2003 they started the ICT industry, ICT is today the first pillar of Mauritius economy this is the reason why we are investing in education and capacity building in the ICT sector. The problem of skills mismatch often children are pushed by parents toward a specific curricula or job, to mitigate this problem we invite parents to attend presentation about ICT and potential opportunities to work in that sector. At general level all the student are taught on line with tablets and they learn to code already at the primary schools. The target is to reach 15.000 thousand students in the near future. They just opened the IT Polytechnic so students from the IT Academy the move to Polytechnic. IBM and ORACLE are already based in Mauritius and they offer internship to students. In two weeks they will have a Google conference.

2. **Rwanda – H.E. Mr. Jean de Dieu Rurangirwa, Minister, Ministry of Information Technology and Communication (MiTEC)**

a. What is Rwanda doing to mitigate challenges that hinder building a full knowledge-based society?

b. - What can be the role of e-learning in building a knowledge based society?

SDG 4 QUALITY EDUCATION

H.E. Mr. Jean de Dieu Rurangirwa presented a clear vision on Rwanda roadmap to mitigate the challenges in building a full knowledge based society, the path starts from primary education and follows citizens through the educational curricula and later. In doing this e-learning plays a key role providing the opportunity to reach a wider number of citizens whenever they prefer.

Rwanda has identified ICT as a key pillar for Rwanda economy, want to move from agricultural based society to information based society the work is already active, initially we identified policies and investments to fully develop the knowledge society. The country is now covered by world class broadband fiber-optic network. Roll out of internet and 5G testing to speed the roll out toward a knowledge society, they realized that to move toward KS need the contribution of everyone. Smart Rwanda master plan is not enough they need local plans for socio economic environment. Smart classroom initiatives are improving capacities of students, we use drones to remote hospital. It is perfect testbad for future technologies.

E-Learning is playing a major role traditional classrooms require hardcopy material to transfer content, e-learning is an effective way to transfer the knowledge to the entire class. The teacher can disseminate the teaching materials to remote schools. We have a huge network coverage across the country reaching the remote schools.

3. **Ukraine – H.E. Mrs. Emine Dzhaparova, First Deputy Minister, Ministry of Information Policy**

a. What are main challenges for Ukraine with the regard to information reintegration of occupied territories in particular of Crimea?

b. What are key-priorities of the information policy of Ukraine?

SDG 4 QUALITY EDUCATION
SGD 16 PROMOTE JUST, PEACEFUL AND INCLUSIVE SOCIETY

H.E. Mrs. Emine Dzhaparova depicted the recent history of some of the hot regions of the country (Crimea and Donbass), she explained how media were managed in order to support the civil war and the establishment of a different leadership in occupied territories. She provided a list of priorities in order to restore a reliable information system.

As may aware the war and the occupation of Crimea and the referendum in Crimea they also started the war in Donbass 100.000 people died, 23.000 wounded 2 million people refugees among countries.

The information warfare, how media may be used to fight a cyber warfare, the first step was to shutdown television, radio, internet and mobile phones in order to isolate citizen from Crimea from the rest of the world. All the information infrastructure was occupied, and a bubble of parallel reality was deployed, the invasion was transformed into a civil war and there was no time to understand which was the reality.

The priorities of information system are how our media can be used to deliver the information avoiding to jeopardize the fragile democracy through fake information this was experienced both in the US and Europe as use of fake news to impact citizens decisions. They have to choose between freedom and security, a number of web sited were opened by Russian but Ukrainian government don't want to shut down them by law. I have many friends in Russia I do not believe to my description of the reality because they are immersed in another picture of the state of the art.

4. United Arab Emirates - Mr. Ali Al Yafei, ICT Minister Advisor, Ministry of Education

a. Considering the rapid improvement the UAE is undergoing, in education and other fields, how did you maintain building capacity to ensure change for sustainability?

b. If you were to choose the top factor influencing e-learning transformation, which would it be?

SDG 4 QUALITY EDUCATION
SDG8 PROMOTE INCLUSIVE AND SUBSTAINABLE GROWTH, EMPLYEMENT AND DECENT WORK FOR ALL

Mr. Ali Al Yafei presented the UAE roadmap to ensure adequate capacity building coping with the high pace of innovation already characterising the Emirates.

At the UAE we look at capacity building in a different way not only training and capacity building activities, you need to have a more sustainable model we developed different models: we look to e-majority which is a framework given to school leadership to self-evaluate themselves and evaluate how far they are form integrating ICT into schools, if needed to put the remedies and solutions to get to the goal. Another framework is the ICT Competency for teachers it does similar things and teachers are self-evaluated and provide solutions to bridge the gaps they and students may have. E-Safety measures the maturity of eSafety in schools it looks to policies and practices.

In a nutshell the capacity building should not be looked from outside it should come from within.

We need to change the mind-set of the individual they think that changes will come from outside they need to change for they own self.

5. **Centro de Estudios Avanzados en Banda Ancha para el Desarrollo (CEABAD)- Mr. Sungnam Choi, Program Director**

a. In the aspect of ICT capacity building, do you think that what kind of strategy or initiative should be measured considering development of broadband in Central American Region?

b. CEABAD has successfully provided online courses in Latin American countries. Please share us your experience such as challenge and achievement while developing and managing CEABAD online campus?

SDG 4 QUALITY EDUCATION

The capacity building is the key of new economy, I believe that this is the main challenge in central American region, so we made some initiative dedicated to the central American region. The initiative was launched in 2014 in Managua in Nicaragua. Nicaragua has created a national broadband network creating initiatives to promote capacity building in Latin America.

Main challenges and achievements maintaining on line courses. They are targeting Spanish speaking countries, we try to use the mother tongue of Latin America using Spanish.

6. **EDACY– Mr. Temitope Ola, Founder and CEO**

a. To what extent must the current education system be changed or revised, in order to take full advantage of ICT for skills development?

b. What are the critical challenges facing adoption of technology for vocational training in Africa?

SDG 4 QUALITY EDUCATION

As well know higher education has been under tremendous pressure to transform because the new skills required by companies, there is growing demand of higher education in order ot find the positions they want. The world requires to train more and more people to train them for the job they are required. New skills are coming up how we can produce new skill to come up with new we use MOOC in a joint venture with a Swiss university.

In Africa in particular we have problems in human factor, we can talk a lot about access to infrastructure, there are many other barriers but human factors is still the major problem, we need to invest in retraining teachers we need to setup workshops for people. How to evolve toward new forms of vocational training.

7. **AIESEC– Mr. Abdelrahman Mohamed, Global President of AIESEC International (Netherlands)**

a. What steps have AIESEC taken to ensure capacity building among youth towards increasing their employability.

b. What role does knowledge society play in fulfilling AIESEC's goal of engaging and developing every young person in the world?

SDG 4 QUALITY EDUCATION

Mr. Abdelrahman Mohamed is working for an international organisation developing capacity building in different countries, he outlined the need to implement two levels of education the theoretical one together with the practical one. This format will maximise the employability of young generations providing them with a solid cultural background. He asks for a sounding solution in order to provide education in the double format.

Large majority of people use to have a smart phone and they concentrate their attention on the phone screen. Blended education solution are very popular, the vast majority of jobs have to be redifind in terms of competences. The problem of 2020 it will not be the challenge of unemployment but the challenge of re-deployment. How can we re-deploy young people in the new jobs.

8. **Evolution of Mind, Life and Society Research Institute (EMLSRI)- Dr. Yohko Hatada, Founder and Director**

a. - What are we aiming at using Knowledge for societies? Why?

b. - How could future society and civilization be built?

On request of the speaker the two questions were merged in one single question.

Dr. Yohko Hatada: “My point of view is billion years <- evolution of life on globe. So meaningful – for all of those, time, material, evolution process, so as for future direction of billion years. What is meaningful human civilization contribution to this evolution process?”

Dr. Yohko Hatada in principle considers that the core is the individual. Individual’s quality of life comes from true understanding of the self and living for connecting / integrating the self-deeper and further, to the world, to the environment, to the time, to the evolutionary time. This process requires “finding own calling” unique life mission; which everyone has. Then one starts to live own life, not others’, or believing but not truly so. One becomes unique, innovator of own life. That’s what we need. This is needed for anyone and everyone. Hatada calls to build “Calling right” for UN as a part of HR, because this is critically important for future building with uncertainty in dramatic revolutionary times like now. “We need to signify it, verbose, recognize it and need to make civilizational movement.”

SUMMARY
We had eight distinguished speakers providing a view on the topics from different countries and regions.

To summarize we can identify three main topics related to different SDGs (4,8)

a) Capacity building
b) Power of media
c) Deep relation between human and the cyber world.

Major part of the distinguished speakers presented the state of the art and future trends of education and capacity building in their country outlining the strategies and methodologies applied.

Mauritius invested in the full capacity-chain being the ICT one of the national pillar of economy. They created IT Academia and IT Polytechnic, Rwanda did similar initiatives connecting the whole country with broadband. UAE explained their structured methodology to achieve better results in capacity building keeping the same pace of innovation that in UAE is a cutting edge priority. The need of re-shape the curricula in order to better fit with actual and future job position requirements is a paramount as well as the need to reshape education to better meet the expectation of young generation in terms of methodology and format.

The power of media in impacting society and shaping the opinions and the perceived reality, the ability to setup a kind of parallel universe fully controlled by the information “managers”

Last but not less relevant the contribution provided by Yohko concerning the deep relation between human and cyber technology and how to start the process to better the quality of life.

Centro de Estudios Avanzados en Banda Ancha para el Desarrollo (CEABAD)

Mr. Sungnam Choi
Program Director

1) In the aspect of ICT capacity building, do you think that what kind of strategy or initiative should be measured considering development of broadband in Central American Region?

Thank you Chair. Dear excellencies, participants, colleagues, good morning to all.

I am very pleased to join this honorable session. Participating the WSIS, I got impressed that most of people emphasized the importance of capacity building. I also agree that capacity building is the key toward digital economy and to realize digital ecosystem. In this sense, I believe that this session is quite important.

I working in Nicaragua, one of Central American countries. Still some countries in Central American Region do not have a national broadband plan, in other hands, other countries in the Region already have their own national broadband plans and implemented their plans.

The reason why whether a country has a national broadband plan or not is important because usually a national broadband plan has a comprehensive capacity building program. However, even though a country has a comprehensive capacity building program, they have another problem is that just few people can implement those programs.

I believe that those two problems, lack of capacity building programs & lack of experts or specialists in public sector, are main challenges in Central American Region. Also, we can find the same problem in the other regions. Thus, I am sure that capacity building program strategy or initiative in national wide should be taken under national broadband plan or digital agenda.

In order to solve those problems in Central American region, CEABAD, Regional Broadband Training Center by Inter-American Development Bank (IDB), with support of Government of Korea (Ministry of Science and ICT) and Government of Nicaragua (TELCOR, Institute of Telecommunication and Post) was established at Managua, Nicaragua, June 2014.

Until now, we have provided online and offline programs on various topics regarding broadband and ICT more than 3,000 government officials & experts in mainly Central American Region and other counties in Latin America during the last 3 years.

Through the center programs, there was significant impact regarding the capacity of governments to address the many challenges of dealing with public policies and regulations related to the access, adoption and use of broadband.

For example, the government of El Salvador announced they adopted a digital broadcasting standard in January 2017. In order to support this policy formulation, the Center provided local workshops, professional consultation and online courses for officials in El Salvador from 2015 to 2016.

Another example is Nicaragua. They are constructing national broadband backbone network started last year. To support their broadband infrastructure and regulatory framework, our Center provided several workshops, seminars, and online courses for government officials and experts in private sector in Nicaragua from 2015 to 2017.

We are also providing a platform to facilitate and boost development of broadband in Central American region by organizing high-level regional forum every year.

2) **CEABAD has successfully provided online courses in Latin American countries. Please share us your experience such as challenge and achievement while developing and managing CEABAD online campus?**

Regarding online courses, We, CEABAD, has provided 12 online courses since April 2016. We are targeting Spanish Countries government officials so we are offering 100% Spanish courses. As you might know well, there are many online course platforms like Coursera, edX but most of programs are based on English. So, without language barrier, if you have mother tongue of Spanish, you can easily join our virtual campus.

In addition, we have developed our contents based on needs and realities in telecommunication sector in Latin America. Actually, we hired international experts who worked and lived in Latin America and collaborated with international organizations which have regional office in Latin America like ITU to create quality and useful contents. Thus, we are providing practical and tangible information and knowledge for participants in their work place.

Most of all, we had efforts to create well designed contents to encourage people to keep learning. Indeed, one of reasons to fail online courses is not easy to keep attention. We pretty much focused on well-organized materials to deliver simple and core ideas and concepts in short time, well graphic designed pages to have more fun and attention for learners. Recently, we are providing webinar services to provide a place to meet instructor in cyber space to have private clinic session and keep motivation.

The most important thing is that I believe that our team members have confidence to develop and operate online courses by ourselves. When we started this project, nobody in the Center had enough experience to develop and operate online courses. Indeed, most of things like creating contents, instructional and graphic design of contents, and marketing were made by outside of the Center. However, like our TEAM slogan, learning by doing, our staffs have increased their capacities by working and finally, we launched new course, called digital business, last month by 100% ourselves.

Recently, Nicaraguan government opened national online university benchmarking CEABAD. Also, we got lots of offers from private sector in telecommunication in the Region to develop their online programs.

Through our experience, our staffs find their potential, vision, and dream to manage online courses. I believe that this kind of confidence is quite important achievement through the project.

Thank you.