WSIS FORUM 2022
Starting on 15 March
Final week 30 May - 3 June

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Table of Contents

Introduction

High-Level Policy Sessions

The WSIS Forum 2022 High-Level Policy-Sessions took place during the Final Week of the WSIS Forum 2022, on Tuesday 31 May and Wednesday 1 June 2022.

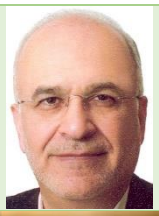
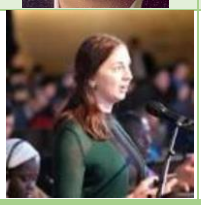
The High-Level Policy sessions gathered High-ranking officials of the WSIS Stakeholder community, representing the Government, Private Sector, Civil Society, Academia and International Organizations. Interactive policy statement sessions will be moderated by High-Level Track Facilitators (HLTFs), nominated and identified by each stakeholder type and were grouped around different themes identified as important by the WSIS Stakeholders during the open consultation process. The main role of the HLTFs was to capture the vision, identify emerging trends, opportunities and challenges shared by the leaders of their session.

WSIS Forum 2022: Chairman

H.E. Professor Isa Ali Ibrahim (Pantami)
Minister
Federal Ministry of Communications and Digital Economy
Nigeria

Moderation: High-level Track Facilitators (HLTFs)

All the High-level policy sessions were moderated by High-level Track Facilitators nominated by the different stakeholder types, i.e. Civil Society, Academia, Private Sector and Technical Community.

Session No.	Photo	Name	Title	Organization	Type of Stakeholder
One Bridging Digital Divides		Ms. Mei Lin Fung	Chair and Co-Founder	People Centered Internet	Civil Society
Two WSIS Action Lines and the 2030 Agenda / Inclusiveness, Access to Information and Knowledge for All / Bridging Digital Divides		Ms. Mikaela Jade	CEO and Founder	InDigital, Australia	Civil Society
Three Building Confidence and Security in the use of ICTs		Dr. Ahmad Sharafat	Professor and Senior Consultant	Tarbiat Modares University, Iran	Academia
Four Bridging Digital Divides		Ms. Timea Suto	Global Policy Lead	International Chamber of Commerce, France	International Organization

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Five ICT Applications and Services		Ms. Moira Patterson	Global Market Affairs & Community Engagement Director	IEEE Standards Association, United States of America	Technical Community
Six Climate Change/Bridging Digital Divides		Ms. Melika Righi	Associate	Dama Italy	Civil Society
Seven Inclusiveness, Access to Information and Knowledge for All / Bridging Digital Divides		Dr. Liberato Bautista	President	Conference of Non-Governmental Organizations in Consultative Relationship with the United Nations (CoNGO)	Civil Society
Eight Enabling Environment		Mr. Kevin Perkins	Executive Director	Farm Radio International	Civil Society
Nine Inclusiveness, Access to Information and Knowledge for All/WSIS Action Lines and 2030 Agenda/Bridging Digital Divide		Prof. Ke Gong	Immediate past president	World Federation of Engineering Organizations	Civil Society

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Ten Digital Economy and Trade/ Financing for Development and role of ICT		Ms. Emily Middleton	Partner	Public Digital	Private Sector
Eleven Cultural diversity and identity, linguistic diversity and local content/Ethical Dimensions of Information and Knowledge Societies/Media/ICTs and Gender Mainstreaming		Mr. Paul Spiesberger	Chair	Austrian Network for Information and Communication Technologies for Development,	Civil Society

High-Level Policy Sessions

Opening of the High-level Track - WSIS Forum 2022

Secretary-General, ITU – Mr. Houlin Zhao, Secretary-General, International Telecommunication Union, ITU

Opening Remarks

Your Excellencies, Ministers, Heads and Representatives of UN agencies and regulatory bodies, my fellow ITU Elected Officials, Ladies and Gentlemen,
Welcome to the Opening Segment of the WSIS Forum 2022! It's good to be back in person for the first time since 2019! The COVID-19 pandemic prevented us from meeting face-to-face during all this time, but it never weakened the Forum's forward-looking and collaborative spirit. On the contrary, the WSIS Forum has come out of this period stronger than ever. For one, the event now takes place over several weeks each year, which has resulted in increased participation from all corners of the world.

More than to 1,000 participants have registered physically for this final week. We are seeing record numbers of entries and votes for the WSIS Prizes. The Forum is more diverse and inclusive, offering a more accurate representation of our increasingly digital society and economy. It is also more interactive and its agenda and programme more far-reaching, with new special initiatives, prizes, projects and tracks on topics of key importance to our digital future. This year is an important year for the Forum, the WSIS process, and the future we want to build. In March, the ITU Council submitted the roadmap on the 20-year WSIS review to the ITU Plenipotentiary Conference to be held in Bucharest, Romania, from 26 September to 14 October 2022. It was a show of support for ITU's leading role in the WSIS process looking beyond 2025 and a reaffirmation of the importance of the WSIS Action Lines for the achievement of the UN Sustainable Development Goals.

Reigniting the development agenda will be at the heart of the ITU World Telecommunication Development Conference set to start in just a few days, on 6 June, in Kigali, Rwanda, and whose theme is "Connecting the unconnected to achieve sustainable development." It will be

preceded by the first Generation Connect Global Youth Summit, where young leaders, entrepreneurs,
social change-makers and others will issue a "Call to Action" document drawing the attention of world leaders to issues including digital skills, climate change, online safety, the future of work, and more.

These major ITU conferences, like our World Telecommunication Standardization Assembly held last March, show how vital digital technologies are to creating a more prosperous, sustainable and inclusive future for all. They are taking place in a world confronting climate change, COVID-19, climbing food prices and an energy shock—a world where hundreds of millions more people could fall into poverty, and where close to 3 billion people are still unconnected.
Digital technologies offer solutions to all these challenges. Since the launch on 15 March, this year's WSIS Forum has held over 100 virtual sessions, bringing to life the many benefits of ICTs in areas as critical and diverse as education, health, financial inclusion, climate change, accessibility, inclusion, cybersecurity, smart cities, and many more.

Over the course of the week, we are going to have the opportunity to hear from and engage with some of the world's foremost government, international organization, business, civil society and academic leaders. I want to thank all the Ministers, UN colleagues, CEOs and others who have come here to Geneva—or will be joining us online—to share about their hopes, challenges and expectations for the future of ICT.

Thank you to all participating sister UN agencies for their dedication and contribution over the years. A special mention to UNESCO, UNDP and UNCTAD who have co-organized the WSIS Forum with ITU since its inception.

[Sponsors slide] Let me thank our sponsors, without whom none of this would be possible. We have put them up on the screen. Thank you for your generous support!
Last but not least, I want to acknowledge all the participants and speakers who have committed their expertise, time and energy to making this year's Forum such a success since March.

Let us continue to use the WSIS Forum as a powerful tool for the promotion of ICT, guided by the vision outlined by WSIS almost two decades ago. And as we look beyond 2025, let's not rest until everyone, everywhere can benefit from the opportunities that ICTs can offer.

I wish you all a successful final week of the WSIS Forum 2022!

Thank you.

WSIS FORUM 2022
Starting on 15 March
Final week 30 May - 3 June

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Chairman of the WSIS Forum 2022 - H.E. Professor Isa Ali Ibrahim (Pantami), Minister, Federal Ministry of Communications and Digital Economy, Nigeria

MISSING STATEMENT

Session One: Bridging Digital Divides

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/452

Moderated by High-level Track Facilitator:
Ms. Mei Lin Fung, Chair and Co-Founder, People Centered Internet, United States of America

WSIS Action Line Facilitator:
Mr. Mario Maniewicz, Director, Radiocommunication Bureau, International Telecommunication Union

Speakers:

1. **Gabon** - H.E. Mr. Jean Pierre Doukaga Kassa, Ministre, Ministère de l'Economie Numérique
2. **India -** H.E. Mr. Devusinh Chauhan, Minister of State, Ministry of Communications
3. **Georgia -** H. E. Mr. Guram Guramishvili, Deputy Minister, Ministry of economy and Sustainable Development of Georgia

4. **South Africa -** H.E. Mr. Phillemon Mapulane, Deputy Minister, Ministry of Communications and Digital Technologies
5. **Venezuela -** H.E. Eng. Gloria Carvalho Kassar, Deputy Minister, Ministry Information and Communication Technology Development
6. **Greece** - H.E. Dr. Athanasios Staveris-Polykalas, Secretary General of Telecommunications and Post, Ministry of Digital Governance
7. **Costa Rica** Eng. Gilbert Camacho Mora, Board Director, Chairman, Superintendency of Telecomunications
8. **Poland -** Dr. Jacek Oko, President, Office of Electronic Communications (UKE),
9. Mr. Seizo Onoe
10. **NTT Corporation**, Executive Vice President and Chief Standardization Strategy Officer of NTT CORP. and Fellow of NTT DOCOMO, INC.
11. **Nigeria -** Prof. Umar Danbatta, Executive Vice Chairman, Nigerian Communications Commission
12. **Basic internet Foundation,** Prof. Josef Noll, Secretary General

Executive Summary by High-Level Track Facilitator

Our panel began with an exercise to imagine how it must feel to be forgotten and left behind. Imagine you are a child again - close your eyes and remember playing hide and seek - you are hiding! Now the game has gone too long, and you hear nothing. Open your eyes- ohhhh you discover that your favorite aunt has taken everyone for ice cream, but you have been left behind. Remember this feeling because only when we stand in solidarity with those left behind will we be prepared to do the difficult collaboration needed to bridge the divide together

Amazing breakthroughs were described for Bridging the Digital Divide – and the breadth of initiatives was truly breath taking! Funding innovations, infrastructure plans, involvement of multi stakeholders, attention to multiple generations, the richness and agile innovation going on from Gabon, Georgia and Greece, India, South Africa, Venezuela, Costa Ric, Poland, Japan, Nigeria and Norway –we went on an exciting Journey around the world in 60 minutes we heard the stories of how people were not being forgotten and strenuous efforts by many people underway.

The vision is of an “Olympics” for Bridging the Digital Divide – it will take an many approaches, and we want to see how each country is doing in bridging the digital divide. There could be the Funding category, the infrastructure category, the multi stakeholder engagement category, the citizen engagement category

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

The emerging trend is a flood of activities being taken by governments around the world

The opportunity is to take all these activities and provide a "leader board" in each of the different categories, so countries can see what each other are doing, and vie to compete to cross the digital divide - this leader board would be based on results and impact - voted by the ones who care the most - your peers working on the very same problem

The key challenge is to find a way to categorize and compare – this requires a knowledge Commons which curates the progress and provides a directory of the players

The outstanding example was that 440 million in India acquired bank accounts, but Nigeria with a large population is seeing India reach its population and catching up. I was very impressed by the innovative data strategies pioneered in Nigeria. Georgia Gabon and Greece strod our fir the huge commitment each are making but it is equally clear that for all countries who spoke the interest is very high - COVID has taught the value of digital and the pain of the digital divide so we all want to bridge it
The link to the SDG's is SDG 17 – partnership to cooperate in bridging the divide

The road ahead is towards an Olympics of crossing the digital divide – and the people of the world are the real winners we all want to see.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

GABON

H.E. Mr. Jean Pierre Doukaga Kassa
Ministre
Ministère de l'Economie Numérique

Questions:

What strategy has been deployed to reduce the Digital Divide in Gabon?
Can we say today that Gabon has available telecommunications infrastructures, necessary to face the digital divide?

- Monsieur le Secrétaire Général ;
- Excellences Mesdames et Messieurs les Ministres et Chefs de délégations ;
- Excellences Mesdames et Messieurs les Ambassadeurs et Chefs des Missions diplomatiques ;
- Monsieur le Président du Forum 2022 du Sommet Mondial de la Société de l'Information;
- Honorables délégués ;
- Distingués invités ;
- Mesdames et Messieurs.

C'est un réel plaisir et un insigne honneur pour moi de prendre la parole en cette circonstance solennelle, au nom de mon pays, le Gabon, de Son Excellence ALI BONGO ONDIMBA, Président de la République, Chef de l'Etat, au nom du Gouvernement gabonais et au mien propre.

Je voudrais, en ma qualité de Ministre Gabonais de l'Economie Numérique, exprimer au nom de la délégation qui m'accompagne, ma profonde gratitude aux Organisateurs de ce grand

événement, pour la qualité de l'accueil et toutes les commodités mises en place afin de rendre agréable notre séjour en terre Helvétique.

Qu'il plaise à vous, Monsieur ISA ALI Ibrahim Pantami, Président du Forum 2022 du Sommet Mondiale de la Société de l'Information (SMSI) de bien vouloir recevoir mes chaleureuses et vives félicitations pour votre brillante désignation ainsi que celle de l'ensemble des membres de votre Bureau pour la conduite de ce Forum.

C'est l'occasion ici de saluer toutes les délégations venues prendre part à cette importante rencontre, de remercier l'Union Internationale des Télécommunications (UIT) et, particulièrement, à Monsieur Houlin Zhao, Secrétaire Général de l'UIT pour les efforts qu'il déploie afin de promouvoir les objectifs de notre Organisation, notamment l'alignement du processus du SMSI sur les Objectifs du Développement Durable (ODD). Je voudrais également féliciter l'ensemble des parties prenantes pour leurs contributions.

➢ Monsieur le Secrétaire Général,
➢ Mesdames et Messieurs,

Pour réaliser sa transformation numérique, le Gabon a mis en place le Plan Gabon Numérique, déclinaison du Plan Stratégique Gabon Emergent (PSGE) cher au Président de la République, Chef de l'Etat, Son Excellence Ali BONGO ONDIMBA. Qui a fait de la lutte conte la fracture numérique une ligne de force de son nouveau Plan d'Accélération et de Transformation (PAT) du Gabon.

Ce plan, pour le secteur du Numérique se décline en trois grands axes :

✦ Le premier consiste à renforcer le cadre légal et réglementaire conformément aux orientations de l'Union Internationale des Télécommunications. C'est pourquoi le Gabon offre aujourd'hui un environnement juridique attractif permettant d'attirer les opérateurs économiques du secteur.

Dans cette optique, plusieurs textes réglementaires ont été mis en place, notamment :

- la loi sur les communications électroniques ;
- la loi sur les transactions électroniques ;

- la loi sur la protection des données à caractère personnel. Le texte sur la cybercriminalité et la cybersécurité est en cours de validation.

✦ Le deuxième axe vise la construction des infrastructures numériques.

C'est dans ce sens que le Gabon a consenti d'importants investissements qui lui ont permis de déployer près de 2000km fibre optique grâce au projet Backbone Nationale Gabonais. 7 provinces sur 9 ont bénéficié desdits investissement permettant au pays de réaliser un bon qualitatif en matière de connectivité.

Ce projet a aussi permis au Gabon de s'interconnecter aux pays voisins à savoir, la République du Congo et la République du Cameroun. Quant à l'interconnexion avec la République de Guinée Equatoriale, un mémorandum d'attente est signé et la connexion physique est en cours réalisation.

La connectivité internationale du Gabon est assurée par trois câbles internationaux qui sont:
- le câble Africa Coast to Europe (ACE)
- le câble South Africa Transit 3 (SAT-3)
- le câble West Africa (WAC)

Par ailleurs, en 2015, l'Union africaine, désigne le Gabon internet eXchange (Gab IX) comme point d'échange internet de la CEMAC, lui conférant ainsi, le statut de hub d'interconnexion de la sous-région Afrique centrale.

Ces importants investissements associés à la contribution du secteur privé permettent au Gabon de présenter un taux de couverture de l'ordre de 90% pour un parc d'abonnés à l'internet mobile haut débit de près de 72 %. Les 10% de la couverture restants seront effectués dans le cadre du développement du Service Universel des communications électroniques permettant la connectivité dans les zones blanches, en adoptant la stratégie suivante :

- Fixation d'obligations de couverture de réseau des zones de faibles rentabilités économiques dans le cahier des charges des opérateurs titulaires de licence ;

- Mise en place d'un fonds développement du service universel des télécommunications par la loi et alimenté par les opérateurs de réseaux ouvert au public.

- Cette stratégie mise en place permette de réduire régulièrement la fracture numérique que nous contrôlons et mesurons à travers les indicateurs présentés précédemment avec:

- un taux de pénétration de l'internet de l'ordre de 125%
- un taux de couverture des populations en internet de plus de 93%

✦ Enfin, le troisième axe dont l'objectif est la mise en œuvre de l'e-Governement avec le développement des Projets eGabon et Gabon Digital, qui consistent à numériser l'ensemble des services administratifs et à développer un écosyst;ème favorable à l'entrepreneuriat numérique, qui permette au Gabon d'amorcer sa transition numérique.

En clair, il s'agit pour le Gabon, de se focaliser sur :

- la mise en place d'un identifiant unique;
- le renforcement du système de prélèvement fiscal;
- la mise en place de l'e-santé et bien d'autres et;
- de poursuivre sa politique de mise en place des incubateurs numériques pour un écosystème favorable à la création de startup du numérique.

Parallèlement à ses efforts sur le plan local, et grâce à l'implication personnelle du Président de la République, Chef de l'Etat, Son Excellence Ali BONGO ONDIMBA, le Gabon est l'un des membres fondateurs de l'Alliance SMART AFRICA. C'est ici l'occasion de souligner l'important travail accompli par l'Autorité de Régulation des Communications Electroniques et des Postes (ARCEP), pour le rôle important joué au sein de cette l'Alliance dont elle assure la Présidence des Régulateurs des pays membres.

Plusieurs projets au sein de cette Alliance sont en cours d'exécution parmi lesquels, le Réseau Africain Unique (RAU) et le développement de l'industrie des TICs, confiés à la République Gabonaise.

Revenant sur les conséquences de la COVID-19 sur notre écosystème numérique, nous notons qu'elle a contribué au changement de comportement des citoyens. Ainsi , nous avons observé une accélération de l'adoption des services numériques par une augmentation de la demande des services TIC. Cette augmentation significative de la demande et de l'utilisation de l'internet large bande et mobile a conduit à:

- l'adoption des modalités de travail à distance;

- la hausse des achats et transactions en ligne et enfin;
- l'utilisation du digital pour faire face à la pandémie.

➢ Monsieur le Secrétaire Général ;

➢ Mesdames et Messieurs.

Au moment où le Gabon se prépare à présenter le 22 juillet 2022, au Conseil Economique et Social des Nations Unies, puis lors du Forum Politique de Haut Niveau, son premier Examen Volontaire National des progrès réalisés dans le cadre des objectifs de développement durable (ODD), il me plait de formuler le souhait que l'UIT consente à accompagner tous les pays en développement de notre Organisation pour réduire effectivement la fracture numérique entre le Nord et le Sud.

Le Gouvernement gabonais reste engagé et mobilisé pour continuer à promouvoir ses principes directeurs et à assumer ses obligations afin de construire notre avenir commun, pour le bien-être de l'humanité.

Je vous remercie.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

INDIA

H.E. Mr. Devusinh Chauhan
Minister of State
Ministry of Communications

Question:

Given the fact that India is a huge country having over 1.35 Billion population spread over urban and rural areas with different income levels, different digital skills and languages, and also geographical terrine including forests, deserts, hilly and mountainous, remote and difficult areas; what is the Indian thought process and implementation plans of the Government on bridging the digital divide?

Excellencies distinguished fellow panellist, eminent dignitaries, ITU office bearers, ladies and Gentlemen!

At outset, let me extend a very warm greetings on behalf of people of the Republic of India and my sincere gratitude to ITU and WSIS for giving me an opportunity to be part of this 'High level policy session : Bridging Digital divides'.

Excellencies, in today's world ICT technologies are playing the pivotal role in development and economy, and bridging the digital divide is the utmost need of the hour. Under the dynamic leadership of our Honourable Prime Minister Shri Narendra Modi ji, we in India, are clearly focussed on Inclusive development. Digital inclusion is at the heart of financial inclusion and inclusive econnomic development. Digital connectivity must reach marginalised people, development of people living in far-flung areas of the country. The government is putting conscious and consistent efforts to provide reliable ICT infrastructure in this endeavour. Over six hundred villages are being connected on Optical Fibre cable, with nearly 175,000 already connected. Villages left out of 4G connectivity are being covered through Universal Service Obligation Fund (USOF). I am sure USOF is a global phenomenal because it was ITU's structure

that is followed all over the world to take telecom infrastructure to the areas, which are left out.

Secondly, given the difficulty in laying optical fibre networks in hilly and mountainous terrains, our focus is on the use of technologies that can accelerate development and bridge this divide, like using E band wireless carriers, LEO and MEO satellite connectivity among others. We have issued the first service license for LEO/MEO connectivity and hope to harness the technology to enable digital inclusion in remote areas.

Thirdly, we are creating open public digital platforms. These are all open-source platforms, for example a unified payment system on which any bank can join today and millions of transactions are safely happening on it. India's Univeral Payments Interface or UPI has crossed USD 1 trillion in transactions in the Financial Year 2021-22 with number of transactions hitting 5 billion in April 2022. Digital Inclusion is possible in India due to the JAM revolution in India envisioned by Hon Prime Minister Mr Modi – Jan Dhan Yojana or People's Banking Program providing bank accounts for 440 million unbanked persons for first time in 75 years of freedom, Aadhaar or Biometric Identity for 1.33 billion residents and 1.16 Mobile connections.

On 17 May 2022, the World Telecommunication and Information Society Day, India has launched indigenously developed 5G test bed. 4G & 5G Indian stack, 5Gi and 6G innovation Forum are in news. Will His excellency explain how these initiatives are going to help in bridging the digital divide?

Affordable broadband accessibility is the essence of digital inclusion. Developing 5G test bed, indigenous 4G and 5G stack, development of Indian 5G standards and setting up of 6G innovation forum are the initiatives to reduce cost, facilitate faster 5G spread in rural area and eliminate dependency on specific vendor.
Further, a Nation's security is dependent on the security of its telecom and computer networks. We believe that ensuring security in design and deployment of telecom technology is at the heart of National Security and Cyber Safety. Hence, India has adopted a Trusted Source protocol to enable deployment of secure equipment in its telecom networks.
A fully indigenous 5G test bed, launched by the Hon'ble Prime Minister Mr. Narendra Modi, has been developed through academia-industry partnership at a cost of USD 30 million. This facility is part of large 5G eco-system of India. A consortium of top quality domestic technical institutions have developed the 5G Core, Radio Access networks, and many other 5G use case systems including smart energy meters etc. These solutions have been licensed to industry and the 5G Test bed will facilitate testing of other 5G equipment and solutions developed by Indian designers and developers. India is developing fully indigenous 5G mobile communications

technology and have taken steps to develop 6G technology in future. Our premier research institution Centre for Development of Telematics (CDOT) will roll out a 5G NSA Core by August 2022. C-DOT has already tested and demonstrated an indigenously developed 4G Core and 4G radio access networks.

India is a vast country with large rural and remote areas. The Telecom Standards Development Society of India – India's Standards Development Organisation, along with IITs have developed the Low mobility Large Coverage Standard (earlier called 5Gi) using a new waveform that enables 5G towers to cover wider areas in rural and remote areas. These standards were among the first 5G standards, which have been approved by the ITU and have also become part of Globally harmonized 3GPP Release 17 standards. These will be immensely helpful for countries with similar geographical spread. India is poised to play a leadership role in global digital revolution.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

GEORGIA

H. E. Mr. Guram Guramishvili
Deputy Minister
Ministry of economy and Sustainable Development of Georgia

Questions:

What activates are implementing by your government to support the development of broadband infrastructure and bridge the digital divide?

What is the role of the governments, private sector and other stakeholders to encourage cross-border ICT infrastructure?

On behalf of the Ministry of Economy and Sustainable Development of Georgia, allow me to extend my sincere gratitude for the invitation to take part in the High-Level Policy Session "Bridging Digital Divides". It's a great pleasure and honor to be here.

Bridging the digital divide is one of the main challenges worldwide and for Georgia as well. The broadband infrastructure is vital for the development of the digital economy and society to boost economic growth, expand business opportunities, and improve the quality of life of citizens via better service delivery. This area has a key importance for the social development and creation of new jobs in all fields of economy. COVID-19 crisis has strengthened our views of necessity of the development of digital technologies and broadband connectivity in a fastest way.

The Government of Georgia has undertaken lots of measures for supporting the development of broadband infrastructure:

- For the time being 100% population of Georgia is covered by the 4G signal;
  - In 2021 the density of a fixed Broadband subscribers per 100 households composed 86.7%;
  - In 2021 the density of mobile Internet subscribers per 100 inhabitants composed 109%%;

- In 2021 mobile subscribers amounted 5.5 million, whereas the density was 160% per 100 citizens;

In order to maintain and increase the pace of development of the digital economy and information society and bridge a digital divide in Georgia, the Ministry, which is the policy maker body in the field of electronic communications and information technologies, is working on various activities, in particular, it should be noted that The National Broadband Development Strategy (NBDS) 2020-2025 and its implementation action plan" was adopted by the Government of Georgia. For the implementation of the strategy, which sets ambitious goals for the sector in line with the EU's Gigabit Society targets, Government of Georgia with the World Bank started Log-in Georgia Project.

Project will help to increase the coverage of high-speed broadband wholesale internet services in rural settlements "white zones" of Georgia, where the population is more than or equal to 200 and the operators do not plan to build broadband infrastructure in the next 3 years. The development of the broadband infrastructure will enable private operators, especially small and medium-sized ones to provide broadband services to the population where such services have not been available before or to improve the quality of existing services.

At the current stage, the construction of the middle mile network has been completed in two Municipalities of Georgia. The project should be fully completed by the end of 2025. Totally 5,000 km of fiber-optic infrastructure will be deployed and up to 1000 villages, 170 093 households (585 750 inhabitants) of rural areas will have the possibility to access at least 100 Mbps broadband internet services, administrative entities and enterprises - at least 1 Gbps;

The Log in Georgia Project will help to boost the use of digitally enabled services through training and capacity building programs across the country. The project will contribute to improved affordability of broadband services through policy and regulatory reforms, enabling internet service providers in rural areas to provide competitive high-quality broadband internet services at lower cost.

The Government of Georgia continue support the deployment of community networks in less-densely populated areas (Under 200 persons, which are out of scope of Log-in Georgia project) of Georgia. With the support of the European Bureau of Internet Society (ISOC) in mountainous and remote regions of Georgia, the two community network projects had successfully completed in 2017 and 2019. Mentioned networks are handed over to the local community members.

One of the goals of the National Broadband Development Strategy of Georgia for 2020-2025, is to promote 5G services. Active works has been started, including effective management of the radio frequency spectrum for the development of 5G networks. 5G networks will be essential

for the functioning of different economic sectors–such as energy, transport, banking, health, etc. and in the near future will play a key role in the development of the digital economy and information society.

In order to accelerate deployment of high-speed electronic communications networks, MoESD drafted the law of Georgia on "Infrastructure Sharing" according to the relevant EU Directive and submitted to the Parliament of Georgia. The draft law considers measures, such as the sharing and re-use of existing telecom ready physical infrastructure, which are expected to create conditions for more cost-efficient network deployment.

Regarding the role of the governments, private sector and other stakeholders to encourage cross-border ICT infrastructure - I would like to mention, that high capacity cross-border infrastructure is one of the best opportunities for the countries to develop international connectivities, bridge the still existing digital divide to ensure growth and development of economies, hereby, existing cross-border ICT infrastructure needs to be encouraged to the best possible extent.

Cross-border Digital connectivity improves supply chain performance by connecting and integrating logistics, transport, energy and telecommunications infrastructure, trade routes and corridors.

Relevant national policies, regulation tools, international coordination between the government with the participation of telecom companies, different PPP mechanisms are crucial for further expansion of cross-border ICT infrastructure to ensure, that everyone has the equal opportunity to participate in and benefit from the global digital economy. Countries with less-developed cross-border ICTs might experience lagging in terms of economic progress.

I would like to stress out, that Georgia has the potential in taking advantage of its geographic location and its well-rated business climate is able to host a regional digital hub, which will help to address challenges of limited international data connectivity and development of domestic IT capabilities. It is one of the strategic priorities under the "National Broadband Development Strategy of Georgia and its implementation action plan for 2020-2025" (NBDS). The Government of Georgia explores the possibility to host the regional digital hub and attract investments in the development of Digital Corridor and data centers, which could serve as a regional hub for South Caucasus and gateway of the EU and Asia. This tremendously will help to overcome the existing digital divide between the regions, and achieve the UN Sustainable Development Goals (SDGs).

Thank you for your attention.

SOUTH AFRICA

H.E. Mr. Phillemon Mapulane
Deputy Minister
Ministry of Communications and Digital Technologies

Questions:

Accessibility to digital technologies is one of the impediments on bridging the digital divide, what are some interventions that your country is doing to address the digital access?

Thank you, Madam Moderator, Ms. Mei Lin Fung
Honourable Ministers,
Excellencies,
Mr. Mr. Mario Maniewicz, Director, Radiocommunication Bureau
Distinguished delegates
Ladies and Gentlemen

The digital divide
According to the United Nations, 2.9 billion people, or 37% of the global population, have never been online. The International Telecommunication Union (ITU) estimates that 96% of the 2.9 billion people who do not have access to the internet live in developing countries.

Internet access is largely unaffordable in less developed nations, with young people, men and people living in urban settings more likely to use the internet than older adults, women and those in rural areas. Sadly, the gender disparities are also more visible in developing countries.

Call to connect the unconnected

Sustainable Development Goal (SDG) 9 calls for governments to "Build resilient infrastructure, promote sustainable industrialization and foster innovation." It highlights the important need to of ensuring that all humankind has access to robust digital/ communications infrastructure that enables them to connect and become part of the digital society.

More importantly, SDG 9 acknowledges that innovation and technological progress are central to devising lasting solutions to both economic and environmental challenges. Addressing the issues of digital connectivity will definitely have a ripple effect as it will facilitate the achievement of goals 1 – No poverty, 2- Zero Hunger, 3 – Good Health, 4- Education, etc.

It is uplifting to know that the ITU, through the leadership of Secretary General, Mr Houlin Zhao, has committed to "work with all parties to make sure that the building blocks are in place to connect the remaining 2.9 billion. We are determined to ensure no one will be left behind."

SA interventions towards bridging the Digital Divide.

The digital divide in developing countries, like South Africa, includes a lack of access to digital technology and internet service. It can also include a lack of accessibility to modern, high-quality new technologies such as mobile phones and Wi-Fi access. Additionally, there is significant inequality across the globe in telecommunication bandwidth.

To combat the digital divide our Cabinet approved the revised South Africa Connect model which aims amongst others to expand broadband roll-out in underserved areas. The SA Connect Broadband policy adopted by Cabinet in December 2013, with an aim to significantly improve broadband penetration, reduce broadband prices, increase employment and drive economic growth.

The revised SA Connect model proposes the following key interventions:

- To connect 18 036 schools, 3 873 health facilities and 8241 tribal authority sites in 36 months through the social obligations to be imposed as licence conditions to the recently auctioned mobile broadband spectrum;
- To connect 15 691 government sites, including 949 libraries and Thusong Centres; and
- To connect South African communities and households in underserved areas to the internet by deploying 33 400 Wi-Fi hotspots in partnership with SMMEs and Internet Service Providers.

Furthermore, the national regulator, the Independent Communications Authority of South Africa (ICASA) recently successfully concluded the auctioning of valuable mobile broadband spectrum. Although the spectrum auction raised R14.4 billion for the fiscus, the important outcome is that the spectrum will enable the licensees to expand their networks and upgrade network capacity provided to South Africans and businesses. ICASA has also imposed population coverage obligations to maximise benefits to citizens, particularly in rural areas who are often left out. Government is expediting the Digital Terrestrial Television migration process in order to release the valuable spectrum for mobile broadband whilst expanding the capacity and mordernising the broadcasting sector.

Government is also working on a Rapid Deployment Policy to:

- balance the rights of licensees to enter onto private and public land with the rights of property owners;
- facilitate access to rights of way, wayleaves, servitudes and other approvals;
- enable the rapid deployment of broadband infrastructure in an efficient, cost-effective, environmentally responsible manner; and
- promote the sharing of broadband infrastructure.

The above interventions will address the access component of the digital divide and also contribute in the reduction of the cost to communicative thereby reducing the digital divide.

The emergence of 4th Industrial revolutions has an ability to widen the digital divide as it needs a broader tech savvy society, how can society be skilled to ensure that they are not left behind on this 4IR journey?

The Fourth Industrial Revolution and emerging technologies necessitate that South Africa develops a much more digitally literate society, which requires the country to skill, reskill, upskill, and embrace lifelong learning in order to bridge its digital divide. Digital and future skills are a vital component of South Africa's human resource capacity growth path, without which it cannot renew its economic sectors, government and social sectors and to ensure economic competitiveness needs digital and future skills. The South African government through the Department of Communications and Digital Technologies has launched an annual Digital Skills Colloquium to galvanise and strengthen partnerships for the Digital Skills Development towards the mobilisation and attraction of investment into the highly critical 4th Industrial Revolution (4IR) learning areas. The main objective to the Digital Skills Colloquium is to ensure that the mandate of the government on leading in Digital Transformation brings about creation of new opportunities for South Africans to participate in a Digital Economy.

The major investment needed to achieve the digital skilling of South Africans needs the leveraging of major contributions which would be harnessed through the Digital Skills Colloquium.

As government we embarked on big-ticket digital skills development programmes are that specifically designed and targeting young people who are either in school and training or unemployed (NEET) and people in the workplace environment. Furthermore, The Department in its Digital Skills Strategy has dedicated three (3) of its strategic elements to measures that are targeting young people, people in the workplace environment and these include:

- In Strategy Element 1: Digital Skills Foundations – Measures are put forward which seek to ensure that Young People have the skills to effectively function and participate in the 4th Industrial Revolution and Digital Economy through curriculum innovations whereby coding is introduced in schools at foundation phase through to intermediate and senior phase as well as broadband rollout in schools too enable e-learning.
- In Strategy Element 2: Intermediate and Advanced Digital and Future skills – Measures focusing on the Post-School Education and Training (PSET) seeks to inculcate innovation and entrepreneurship by expanding the STEM frameworks to include Science, Technology, Engineering, Maths, Innovation, Arts and Entrepreneurship (STEAMIE) to ensure that learners are equipped with the necessary skills to be able to start their own business and enterprises.
- In Strategy Element 3: Digital and Future Skills for Workplace 4.0 (Digital Industry and Digital Government)
- The measures focus on the establishment of industry-led digital skills opportunity zones and digital skills centres and the steering of investment and opportunities towards the development of digital skills in the workplace. Employers are particularly encouraged to make opportunities available to their employees to take up online courses that focus on digital skills.

The big-ticket digital skills development programmes which young people can benefit from ran by government include:

1. **NEMISA/Coursera Partnership** – The programme seeks to train 50 000 unemployed youth on various digital skills including Technical Support Fundamentals, Computer Programming Skills, Social Media Marketing, Web Development, Data Science, Project Planning, Machine Learning.

2. **DCDT/Department of Higher Education and Training (DHET)**: The two Departments are looking into a collaboration partnership that seeks ensure skilling of young people in key 4IR related digital skills areas which include Data Science, Machine Learning, 3D printing, Fibre Deployment, Software Development, Cloud Computing, and Drone Piloting. The partnership seeks to train 20 000 young people across the country in the aforementioned digital skills areas.

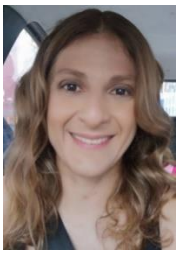
3. **DCDT/ Department of Employment and Labour (DEL):** The two Departments are looking into a collaboration partnership which seeks to ensure labour activation programmes which include skills development and ICT SMME support. The programme will train about 30 000 young people in the following 4IR related digital skills areas; Software Development & Engineering, Cybersecurity, Data Science, Cloud Computing, Network Engineering, Machine Learning, Internet of Things (IoT), Blockchain, Robotics, Quantum Computing, Cell-phone Repairs, Digital Content Creation and Digital Production.

4. **DCDT/ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)**: German government presented to the Department their Digital Skills for Jobs and Income (DS4JI) initiative which is a development cooperation programme financed by the German Federal Ministry of Economic Cooperation and Development (BMZ).

5. **DCDT/ TATA Consultancy Services (TCS)**: A collaboration proposed partnership between the Department and TCS seeks to implement Digital Innovation Zones (DIGIZONE). The DIGIZONE initiative provides a platform for social innovation for enhancing and improving the lives of citizens using digital technologies.

The above interventions on Digital Skills will ensure that no one is left behind as we execute the 4IR initiatives as a country.

VENEZUELA



H.E. Eng. Gloria Carvalho Kassar
Deputy Minister
Ministry Information and Communication Technology Development

---

Good Afternoon,
Honorable excellencies
A cordial greeting on behalf of our Constitutional President of the Bolivarian Republic of Venezuela, Nicolás Maduro Moros, and on behalf of our Minister of Popular Power for Science and Technology, Gabriela Jiménez Ramírez, as well as all the delegates who accompany me in this high-level session of the Summit Forum and other attendees. I wish to congratulate the organizers of this World Summit on the Information Society (WSIS) Forum for holding an event of this magnitude with so many related activities and events on a host of topics of interest to our countries. The WSIS follow-up methodology has shown, over the years, that it is a practice that keeps us up to date and allows us to visualize progress and adjust along the way.

What measures have been taken in our country in terms of electronic government to guarantee the attention of the population regarding the covid-19 pandemic?

We are in this Forum after going through a couple of years marked by a circumstance that changed our ways of life. The Covid-19 pandemic changed the way we communicate and interact socially with our loved ones. Likewise, he highlighted the differences in accessibility to information technologies in certain geographical areas. Some countries have a good Internet connection, while in other areas of the planet they continue to be "dark" and still do not benefit from having Internet connectivity, due to economic or political barriers, technical skills, among other reasons. The pandemic has increased the need for remote work, distance education and electronic commerce and has demanded a greater and better offer of digital services by the public, private and financial sectors. In public sector, this represents an important motivation to quickly automate procedures and services, design virtual participation spaces, design self-

managed online training programs and content and, above all, guarantee the publication effective, updated and accurate quality open data, to obtain indicators associated not only with the health crisis but also to favor the analysis of trends and decision-making at all levels. In other words, it is time for the digital transformation of our public services. Consequently, a core aspect for the development of a Digital Government is a collaborative culture and a data-centric approach. Data is an integral part of efforts to provide opportunities for more transparent, participatory, efficient, collaborative government and citizen-driven service delivery. The Bolivarian Republic of Venezuela, for several years, has been working on the implementation of policies aimed at Digital Government, an example is the PATRIA ONLINE Platform, with which there is direct access to more than 70% of the population with data such as geographic location, telephone contact, email, profession, family, children in school age, health conditions, among others. With the Pandemic, the COVID-19 symptom reporting module was enabled, which allowed direct and personalized care, undoubtedly having an effect on one of the lowest mortality rates in the region. The platform has more than 20 million registered users, which is why it is used as an instrument for early detection and geolocation of infections, effective and direct house-to-house care, consultation and citizen participation, automated attendance at vaccination services according to your geolocation, thus allowing the timely definition of contingency plans to curb the virus contagion curve, also guaranteeing a great analysis of big data for the development of policies, strategies and plans that guide the making of correct and effective decisions to respond to the citizens. Additionally, by knowing the economic activity of each of the inhabitants, through this system direct economic aid was granted in the framework of the Pandemic, since it has its own electronic wallet that connects to the country's banking platform.

What public policies are being implemented in our country to guarantee the population's access to information technologies?

In the case of the Bolivarian Republic of Venezuela, the policy has always been that all our fellow citizens have the same possibilities of accessing information technologies and the benefits and possibilities associated with them. Canaima Educativo and Infocentro programs provided Venezuelans, especially those with low incomes, with the possibility of having access to computers or computers and Internet access, respectively. The effect that these programs have had on Venezuelan society could be described as completely revolutionary. For the first time, millions of people, women, peasants, farmers, adolescents, children, townspeople, were able to become digitally literate, and included information technologies in their daily lives. It is important to mention that these programs were an initiative of the Bolivarian Government as a public policy to achieve true social inclusion in the field of computing and received international

awards from UNESCO. We must bear in mind that the issue of ICT accessibility is not just about having a mobile

device of any well-known brand to consume the content imposed by the telecommunications industry. Instead, we must have access to information technologies to create our own content and develop our own capabilities. We must create content that has our own identity and that contributes to solving local problems with an endogenous and inclusive perspective. For this, the participation of everyone is necessary. Particularly that more women occupy relevant positions in the development of digital applications. It is necessary to create collaborative networks that promote gender balance in a field that has traditionally been dominated by men. Especially in the framework of the Pandemic, where women have played a fundamental role, by participating not only in teleworking, but also in the distance education of their children, using the tools provided by information technologies.

GREECE

H.E. Dr. Athanasios Staveris-Polykalas
Secretary General of Telecommunications and Post
Ministry of Digital Governance,

Questions:

What are the practices, or the main challenges, that the Greek gov't confronted to promote digital inclusion of the people with specific needs and to reduce the digital divide in your country?
Was the COVID-19 pandemic a drawback to Greece on implementing the Sustainable Development Goals (SDGs) of the UN and how did the pandemic affect your economy?

Thank you,
Madam Chair,
H.E. Mr. Houlin Zhao, Your excellencies, honorable delegates, distinguished participants, good evening
It is a great pleasure to participate in this High-Level Policy Session of the WISIS Forum on Bridging the Digital Divides.

(ANSWER TO QUESTION #1)
Referring to your first question, I would like to take this opportunity to share our practices in Greece that promote digital inclusion and reduce the digital divides that may be due to geography, age, disability, gender or digital skills.
Greece is strongly working on the implementation of our vision "Not to Leave Anyone Behind" and our priority at this stage, focuses primarily on the development of a network infrastructure that achieves a secure broadband environment, able to support social and economic

development in the whole Greek territory. This environment is available for access to all citizens, so that everyone can use and benefit from ICT products and services on an equal and equitable basis.

Our country has developed policies and regulation that promote the digital inclusion of people with specific needs, indigenous people, people living in rural areas, women, children, people with disabilities, etc. It was a very complex procedure for my Ministry, considering Greece's specific geomorphology and inhomogeneous population distribution.

We managed to overcome all implications related with the design of Large-Scale Broadband Projects that are applicable in such environments, mainly related with a mapping exercise that needed to be carried out, to identify the scope of intervention in specific settlements. Today, our high-capacity networks have reached remote areas where private investments were not feasible due to the low commercial value, providing affordable connectivity services to all citizens in the Greek territory.

Presently, we are in the contractual phase of our "Ultrafast Broadband" (UFBB), that seeks to cover areas across Greece, which are estimated to remain "white NGA areas" after the implementation of the private sector investment plans and the Rural Broadband project, as well as areas where there is no offering of Internet connectivity of a downlink at least 100 Mbps, upgradable to 1 Gbs.

Having all these broadband infrastructures in our assets, the Greek gov't also seeks to create new infrastructures and services, to promote digital inclusion of the people with specific needs. A recent example is our public centralized IoT Platform, the tender of which was publicized 10 days ago. This platform will provide the necessary infrastructure to stakeholders, to develop solutions for Smart Cities and well-being, providing the required security, heterogeneous technologies, and architectural solutions, to achieve economies of scale and synergies for the benefit of citizens from the implementation of IoT. At the same time, the development of such solutions with a Greek added value will be supported, using this single centralized platform with open standards and increased cybersecurity, providing access to multiusers, and accelerating the time required for implementing IoT applications. The network will be the implementation of an integrated solution (end to end) in order to act as a pilot for the implementation of other similar projects nationwide.

(ANSWER TO QUESTION #2)

Referring to your 2nd question, it is evident that the COVID-19 pandemic has highlighted the vulnerability of our economies and societies and in many cases, it has deteriorated them. However, it also enhanced the demand for connectivity services, with data traffic volumes exploding by nearly 70% in Greece, as people relied entirely on digital services. The Greek government reacted instinctively, converting crisis to an opportunity, by establishing new reforms for the digital transformation of our country.

In this context, we introduced the National Recovery and Resilience Plan (NRRP) "Greece 2.0" that was approved by ECOFIN on 13 July 2021.

We introduce reforms, which will affect --apart from the economic activity--, also technologies, attitudes and institutions, thus paving the way for a transformation that is aligned with the eleven WSIS Action Lines.
It is forecasted that Greece 2.0 reforms and investments will result in the creation of ~ 200,000 new, permanent, quality jobs and a lasting increase of real GDP of 6.9%, in 2026.

The NRRP is structured on four pillars:
(a) The Green transition, ,
(b) The Digital Transformation,
(c) The Employment, skills, and social cohesion,
(d) The Private investment and transformation of the economy

Last years, the digital image of Greece has changed drastically. By implementing the installation of new infrastructures and by developing new digital services that reduce the digital divide, we radically changed a substantial part of our economy.

As a conclusion, it is evident that the WSIS Forum is the ultimate place to gather and exchange experiences and practices with the global community of experts. Being a member of the ITU Council for the last 3 consecutive periods and candidate for the upcoming period, my participation here today is another evidence of the strong commitment of Greece to actively participate in the work of ITU, to bridge the digital divide by promoting digital cohesion, so as to achieve the Sustainable Development Goals (SDGs) in the UN Agenda 2030.

Thank you for your attention and for giving me the floor.
I wish you all success in this WSIS Forum.

COSTA RICA

Eng. Gilbert Camacho Mora,
Board Director Chairman
Superintendency of Telecomunications

With the enactment of the General Law of Telecommunications N°8642 in 2008, one of the functions assigned to the Superintendence of Telecommunications of Costa Rica (SUTEL), as telecommunications regulatory body, is effective compliance with the universal and access telecommunications services, so the most vulnerable populations in the country, for geographic, social or economic reasons, can have quality telecommunications services, for these purposes FONATEL (National Telecommunications Fund) was created as part of SUTEL.

The objectives for SUTEL regarding universal and access services is set out in the National Telecommunications Development Plan (PNDT), a public policy instrument created by the Ministry of Science, Technology and Telecommunications (MICITT), as government body in the area of telecommunications.

So far FONATEL is working on five programs related to universal and access services.

QUESTIONS:

The National Telecommunications Fund (FONATEL) managed by SUTEL in Costa Rica, is developing 5 programs for access and universal telecommunications services, 31 projects in execution, covering 481 districts around the country, more than 1,042,000 people covered by these programs and an accumulative execution of more than US$237 million at this point. In addition, you have recently launched the "Bicentennial Educational Network" program to

provide service to public schools. Could you give us some details about these programs and how they are contributing to reduce the digital divide in Costa Rica?

Thank you for this question.

The Bicentennial Educational Network program´s objective is creating a broadband network throughout the country to serve all public schools and high schools.

The part of this project assigned to SUTEL consist of 2,375 educational centers, located in rural areas, those schools will be provided with internet service with speeds between 15 and 500 Mbps, this speed will be increased up to 1Gbps in the coming years, depending on the size of the educational center. In order to do so, SUTEL is working with Telecommunications Operators to provide Wireless or Fiber Optics services to these sites.

In addition, wireless connectivity will be given to the main spaces in each school, as Libraries and Administrative Offices, to fund these services FONATEL will provide a subsidy up to 5 years.

Up to now, SUTEL has already connected 282 educational centers and continue to expand the implementation, in order to help to reduce the digital divide in Costa Rica.

Costa Rican´s universal access and service programs require a great accumulated investment for their execution. How is FONATEL being funded?

The financing of FONATEL programs and projects is in accordance with the General Telecommunications Law, and mainly consist of resources from the granting of spectrum concessions and a yearly contribution from Telecommunications Operators that ranks from 1.5 to 3% of their yearly income. These recourses can only be applied to universal and access telecommunications services***.***

Conclusion:
In our opinion, as regulators, universal and access services, is an assertive mechanism to facilitate the inclusion of vulnerable population and closing the digital gap, so more and more citizens can get the economic and social benefits of the information and knowledge society.

POLAND

Dr. Jacek Oko
President
Office of Electronic Communications (UKE), Poland

Questions:

Knowledge and capacity building is a crucial part of bridging digital divides. Polish regulator, UKE carries out many educational campaigns. What are your observations on data over-sharing on the Internet? Would you give young people any tips to encourage them to care more for the security and safety in the virtual world?

The protection of personal data and privacy is a very important issue these days. As a society, we gain a lot from the digital development, but we should still remember and be aware of the basic principles of our online security and safety. UKE in its educational activities seeks to promote and teach safe and responsible behaviour on the Internet.
The latest study conducted in November 2021 by UKE on children and parents' behaviour shows that:

- 97,7% of surveyed children use a smartphone (almost half of them started using it at the age as early as 7-8 yo).
- almost half of youngsters aged 10-14 yo, who have a mobile phone, carry it with them all the time, reacting to every sound of any message. This can be considered a symptom of FOMO (Fear of Missing Out), meaning fear of being missed, a form of social anxiety.

- in 2021, almost 40% of surveyed children and parents published their content on various social networks – mainly posts and comments, own photos, videos of their own authorship or photos of relatives – family and friends.

Unfortunately, a lot of young people, despite feeling in the digital world "like a fish in the water" and being considered the generation born with a smartphone in their hand, they still forget about their security and safety online. They do not think about the consequences of their actions. The boundary of what should and should not be published is also blurry and shifting. Adolescents often forget that they are not anonymous on the Internet and that their every action online can be tracked and monitored.

- Caring about consumers, regardless of their age, we as UKE emphasize how important it is to protect privacy, to use and often change complex and not repetitive passwords to strengthen our account protection, or just to be careful in "sharing" our data and our entire life on social networks. It is always worth to remember that in the Internet nothing is lost or forbidden, and that information we provide may be used against us in the future and obviously nobody will ask for our permission.
- We encourage young people to always check and read with understanding the privacy policy on their social media accounts and internet and mobile applications they intend to download, to manage privacy settings and not to disclose sensitive data online. Not to spontaneously and eagerly share everything they think or do, and to rather carefully consider the aim and validity of reporting entire lives.

A potential criminal, a dangerous scammer, or even an unkind friend, who follows the account on FB or Insta, can collect all the information about us and our family, starting from where and how we live, what habits or hobbies we have, where we go on holidays, with whom, when we leave, what kind of car our family has and even what our apartment layout is.

- We do warn people against sexting and sextortion, which is sending their intimate private photos, videos and content, which is sadly becoming more and more popular among young people.
- 16% of children in our study admitted that they or their friends sent their intimate photos to another person, while only 1,8% of the surveyed parents were aware of that. Lack of consciousness and consequences is a big and serious problem.
- 8,4% of children replied that they or their friends were threatened with sharing intimate photos or videos. None of the parents replied that they knew about such an event. This is really alarming.

The cooperation and complementarity of the activities of various institutions is very important. An example can be our cooperation with the Personal Data Protection Office under the project called "Your data – your case". We hope to continue our joint activities in the future, so that we can reach even more recipients.

Digital gap is often a phenomenon affecting our seniors. UKE dedicates its educational campaigns also to the elderly people. What is the most important in these campaigns?

Elderly people more and more often use both the Internet and smartphones. However, there are also seniors who even if cannot send a simple SMS can make calls and that is sufficient for them. A large number of seniors still do not use a computer. Most often, they simply do not have such a need, although some of them confess that they do not have access to the equipment or do not know how to use it.

People who do not use the Internet usually lack the motivation to change, or a trigger. Some admit that they would change their minds if the Internet was cheaper or for free. Elderly people using the Internet most often browse websites, send emails and are active on social networks. Most of the respondents indicated that they were convinced to use the Internet by quickly acquiring information and using online banking in particular. Almost one fifth (1/5)of seniors used help of others in dealing with their issues via the Internet. The assistance most often concerned paying bills and doing online shopping, whereas less often – obtaining the necessary information or dealing with administrative matters.

"I know what I am signing" is a campaign aimed at consumers concluding contracts for the provision of electronic communications services, primarily by the elderly. It is them who most often fall victim to the unfair commercial practices of representatives of operators.

Since 2017 UKE's employees have conducted workshop and trainings for over 30 000 consumers. In campaign "I know what I am signing", we draw attention of seniors to the importance of their signature, their personal data and certain circumstances when data can be maliciously used. We explain consumers' rights and obligations when concluding contracts. Thanks to this, we improve the awareness and digital skills of elderly people.

"J@Online" is the educational campaign launched by UKE in 2021 and addressed to both young and older Internet users, in a nutshell: to everybody who requires improving their digital competences. In that campaign, we conduct various educational activities on cybersecurity.

For elderly consumers, we have prepared and made available for free three interactive online courses explaining and facilitating the practical aspects of using the Internet. Topics vary from: online banking and online shopping to dealing with administrative issues without even leaving your home. Courses contain rich and comprehensive information on services available online. Courses explain how the system works and how to navigate safely, so as not to fall victim to fraud or scam.

Last year, during conferences, webinars and lectures in the J@Online campaign, UKE introduced the basic principles of security, safety and data protection to almost 10 000 participants.
With consumer in mind, we have also shot over 50 educational films known as “Expert advises” series. In an accessible form, short and factual videos, we familiarize consumers with the most important issues related to telecommunications: electronic communications services, network security and safety, as well as data and privacy protection.

Up-to-date information on the consumers’ rights and obligations can be found on our website of the Consumer Information Center (https://cik.uke.gov.pl/). All our activities influence and foster the improvement of competences of users, including our seniors.

We strongly believe that a conscious, self-aware consumer is less exposed to threats and risks, is more alert and knows how to react in case of danger and above all - where to look for help if needed.

NTT Corporation

Mr. Seizo Onoe
Executive Vice President and Chief Standardization Strategy Officer of NTT CORP. and Fellow of NTT DOCOMO, INC.

Questions:

Missing Statement

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

NIGERIA

Prof. Umar Danbatta
Executive Vice Chairman
Nigerian Communications Commission

Questions:

Over 30 million Nigerians mostly in the rural areas and majority who are women are currently excluded from the usage of ICTs due to lack of access. What deliberate effort is Nigeria making to ensure an inclusive participation in the digital economy?

Congratulations on the successful award of 5G licences. What is the Commission's plans to ensure access and availability of the services? What are you doing to encourage availability of bandwidth-intensive services to ensure sustainability of the 5G services?

The digital revolution is changing the way we live and has become the primary medium for communications, information, financial transactions, education and entertainment amongst others. Virtually, every sector of our economy is being positively impacted by innovations driven by digital technologies. Therefore, accessibility and availability of affordable ICT technologies, services and skills have become prerequisites for participation in an inclusive digital economy. In the same vein, bridging the digital divide is fundamental to actualizing the objectives of the Sustainable Development Goals (SDGs) of ending poverty, protecting the planet, and ensuring that by 2030 all people enjoy sustainable peace and prosperity.

At the Nigerian Communications Commission (NCC), we are concerned about ensuring digital accessibility, which enables digital inclusion and ensures inclusive communication for all people – regardless of their gender, age, ability or location in our country. To achieve this, especially

within the context of our ongoing digital economy drive by the Federal Government, the NCC is committed to ensuring that ICT should not only be available and affordable, but also accessible. The Nigerian Communications Act 2003 mandated the Universal Service Provision Fund (USPF) to facilitate the widespread availability and usage of network and application services throughout Nigeria by providing funding through subsidies and grants for the provision of network facilities and network and application services to rural, unserved and underserved areas as well as to underserved groups within institutions and communities. Similarly, the Federal Government of Nigeria, through the Ministry of Communications and Digital Economy introduced two (2) major policies; the National Digital Economy Policy and Strategy (NDEPS) (2020-2030) and the Nigerian National Broadband Plan (NNBP) (2020-2025) which set some targets and timelines for bridging the digital divide.

In these policies, specific pillars and strategic initiatives are well crafted to solve the problems associated with availability, accessibility and affordability of efficient and qualitative quality network services and digital literacy and skills, while targets are set to monitor implementation of the initiatives. Other targets set in the NNBP are; provision of 120,000Km of fibre optic network, attaining broadband speed of 10Mbps and 25Mbps in rural and urban areas respectively. It also projected the attainment of 60% Digital Literacy, 70% Penetration and 90% network coverage by 2025. Additionally, the plan recommends that 95% of Local Government Area Headquarters and 60% of all Base Transceiver Stations should be connected with fibre.

As part of its strategy to effectively bridge the digital divide in terms of facilitating the deployment of network infrastructure, the Commission has mapped out all unserved and underserved areas into clusters. These clusters have been progressively reduced from 207 to 114 clusters through deliberate programmes and projects. We are determined to reduce the number of clusters and unserved population considerably by 2025, in line with Nigeria's National Broadband Plan (2020-2025). Other strategies introduced to bridge the digital divide and to reduce the cost of telecommunications services in the country, include; licensing of Infrastructure Companies (InfraCos) to deploy 38,902km of fibre infrastructure across the geo-political zones in an Open Access Model, licensing of Mobile Virtual Network Operators (MVNOs), reduction of Right of Way charges, elimination of multiple taxation and regulation, ensuring the use of alternative (green) power sources, spectrum trading, spectrum re-farming, a draft framework to utilize TV White Space (TVWS) spectrum for extension of broadband connectivity and services to rural unserved communities, and opening of the 60 GHz Spectrum Band for unlicensed use for broadband service delivery, for which guidelines are being developed for effective regulation of usage.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

The Commission through the USP Fund continues to extend ICT networks and services beyond the frontiers of economic viability to bridge the digital gap for an inclusive digital society. Priority projects are carefully crafted and geared towards facilitating provision of platforms for an all-inclusive digital economy, creation of new jobs for the youths and ultimately taking millions of Nigerians out of poverty. Some of these initiatives include: Digital Nigeria Centres and Tertiary Institution Digital Centres aimed at achieving the "Connectivity for Development (C4D)" goal and facilitating a digital lifestyle in public schools as well as in the surrounding communities, e-Accessibility Centers to provide ICTs and assistive technology solutions to institutions catering for persons living with physical challenges in order to improve their quality of life, the Accelerated Mobile Phone Expansion-Base Transceiver Station (AMPE-BTS) to extend telephony and data services to underserved/unserved areas and the Rural Broadband Initiatives (RUBI) to provide a sustainable wireless broadband network in the underserved or unserved areas, amongst others.

We strongly believe that the World Summit on the Information Society (WSIS) declaration that ''everyone, everywhere should have the opportunity to participate and no one should be excluded from the benefits the Information Society offers'' is attainable. As a responsive regulator, we will continue to drive and support every initiative which aligns with the global vision aimed at bridging the digital divide and promoting inclusiveness and universal access.

Thank you.

BASIC INTERNET FOUNDATION

Prof. Josef Noll
Secretary General
Basic internet Foundation, Norway

Questions:

How do we enable access especially for people and groups who are left behind in traditional business models?

How can we provide local access to decentralized information to address the global challenges and achieve the sustainable development goals (SDGs)?

Missing Statement

Session Two: Bridging Digital Divides

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/454

Moderated by High-level Track Facilitator:
Ms. Mikaela Jade, CEO and Founder, InDigital, Australia

WSIS Action Line Facilitator:
Mr. Alexander Ntoko, Chief of the Operations and Planning Department, TSB, International Telecommunication Union

Speakers:

1. **Guyana** - H.E. Mr. Kwame McCoy, Minister within Office of the Prime Minister of Guyana, Guyana
2. **Malawi -** H.E. Mr. Gospel Kazako, Minister, Ministry of Information and Digitalisation
3. **Dominican Republic** - H.E. Mr. José Montilla, Vice Minister of Digital Agenda, Ministry of the Presidency
4. **Tanzania,** H.E. Mrs. Maimuna Kibenga Tarishi, Ambassador and Permanent Representative, Permanent Mission of the United Republic of Tanzania to the United Nations Office and other international organizations in Geneva

5. **Cyprus,** H.E. Dr. Stelios Himonas, Permanent Secretary, Deputy Ministry of Research, Innovation and Digital Policy
6. **Thailand,** Ms. Ajarin Pattanapanchai, Permanent Secretary, Ministry of Digital Economy and Society
7. **Jamaica,** Mr. Ansord Hewitt, Director General, Office of Utilities Regulation
8. **Timor-Leste**, Mr. Joao Olivio Freitas, Chairman and President of the Board of Directors National Communications Authority
9. **Qatar Supreme Committee,** Mr. Sami Al-Shammari, Chief Technology Officer
10. **Fundacion AbbaCol,** Mr. Farid Lozada, President

Executive Summary by High-Level Track Facilitator

The High-Level Track for Session two was attended by delegates from Guyana, Malawi, Dominican Republic, Tanzania, Cyprus, Thailand, Jamaica, Timor-Leste, Qatar and Colombia. Delegates addressed initiatives from their Country on the ability for all to access and contribute information, ideas and knowledge as a part of an inclusive information society.

Vision

The sharing and strengthening of global knowledge for development can be enhanced by removing barriers to equitable access to information for economic, social, political, health, cultural, educational and scientific activities by facilitating access to public domain information including by universal design, and the use of technologies.

Fresh priorities

Climate change initiatives, especially low carbon development strategies were a feature of the interventions. For example Guyana introduced a Low Carbon Development Strategy with built-in carbon credit earnings mechanisms through a ground-breaking partnership with the Kingdom of Norway. Money earned from the facility was leverage to guarantee self-determining development for Indigenous communities through direct access to those funds. The inclusion of women and girls was highlighted through the Thailand delegate who spoke of the Girls in ICT program which provides courses on ecommerce, and raising awareness of internet safety with the aim to highlight the role of women in our society and increase young girls digital skills for their future career. Further investment in women and girls is essential to achieving the 2030 Agenda.

Emerging trends

Machine learning, hyper connectivity and internet backbone infrastructure were a feature of the panel interventions. For example, the Chief Technology Officer for Qatar provided an example of deploying machine learning to assist more than 1.5 million visitors have an exceptional user experience of the FIFA World Cup, where technology supports unique as well as collective experiences of one of the world's largest sports events.

Opportunities

It is a fact that the world economy is now digital and thus appropriate environments for all people to effectively participate in the digital economy must be created. Many delegates spoke of high youth populations in their Countries as an opportunity for the future. Several delegates spoke of youth digital skills development programs supported by their governments, and in partnerships with the UNDP and other NGOs. Partnering with the private sector was another opportunity that was raised by several delegates, acknowledging that inclusiveness is not the sole responsibility of governments alone. Multi-stakeholder approaches were welcomed to harnessing opportunities and overcoming challenges.

Key challenges

Machine learning and other emerging technologies present significant opportunities for Countries to achieve the WSIS Action Lines and SDGs. However, several delegates disclosed the challenges of seeking global talent in the design, development and use of new technologies. For example, the Chairman and President of the Board of Directors, National Communications Authority to achieve inclusiveness and to provide access to information and knowledge requires a set of enablers that are not unique to any particular Country. These enablers are requirements that span both infrastructure and human factors. First, connectivity is essential, but we also need the people to acquire the necessary skills to be able to participate in the information society.

The future is digital. We therefore need to accelerate our digital capabilities to achieve an efficient transition at scale working together and moving fast. Bridging the digital divide is at the heart of this transition. Solving the connectivity puzzle is not enough to ensure the whole of society can fully reap the benefits of digital. We need to provide high quality services to the public and also create a digital fit society and businesses. Panelists acknowledged not only was backbone infrastructure and hardware necessary, but the focus should become one of inclusive cultures, creativity and human expressions through digital skills development.

Links to WSIS action lines and SDGs

Quality education (SDG4) was a key focus for many of the delegates, underscoring it was digital opportunity. Governments in Guyana and Colombia were distributing not only internet access, but also computational hardware to vulnerable populations. For example, AbbaCol is building capacity for inclusive education in Colombia at the same time community participation in digital skills programs ensure access to information and communication for the most vulnerable population in Colombia. Guyana has a similar program, providing 90,000 devices to the most vulnerable people in their Country; additionally, Jamaica supported a number of young people with laptops, and tablets to ensure that students and teachers have appropriate devices for learning from home.

Road ahead

Emerging technologies signal many opportunities for overcoming the digital divide, however panelists acknowledged that what was needed was more than access to the internet; it was digital skilling at scale, providing the correct incentives and opportunities for the general population to engage; and deploying partnerships across the globe. The investment in young and vulnerable populations must continue if we are to secure the WSIS Action Line, the 2030 Agenda and meet the SDGs.

GUYANA

H.E. Mr. Kwame McCoy
Minister
Within Office of the Prime Minister of Guyana

Questions:

What measures have your government taken to address issues of Inclusiveness, Access to Information and Knowledge for All, in seeking to fulfill the Sustainable Development Goals?

What challenges, if any, do you see as potentially impacting the successful implementation of those very substantial measures you've outlined, as Guyana seeks to fulfill the SDGs?

Distinguished ladies and gentlemen,

Mr. Moderator, Excellencies, colleagues, distinguished delegates…it is indeed a pleasure to represent the government of His Excellency Dr. Mohammed Irfaan Ali at this year's summit of the information society and more particularly with the other esteemed panelists of this ministerial round table.

Our government, in and out of office remains diametrically opposed to any notion that runs opposite to the universal democratic values of inclusivity, access to information and knowledge empowerment for all citizens of the country. Therefore, the record would show that throughout the colonial dispensation, we fought side by side with other parties and civil society actors to secure the right to self-determination… a rite of passage that allows us as a 56-year-old independent nation to universalize those principles as constitutional guarantees for our citizens. However, most unfortunately, our country spent the greater half of her independent life subjugated to the fringes and outer bands of those sacred democratic values, under a prolonged dictatorship.

But good fortunes saw our country break free from the self-inflicted bondages in 1992, when our party was finally able to take the reins of governance in one of the many electoral victories we had secured at the polls since independence.

Since then, Guyana has steadily and progressively climbed onto the shared platform of the international community of democratic nations, with an impressive array of transformational interventions that solidify the gains over the post-dictatorial years for inclusive governance, universal access to information and ground-breaking initiatives for the building of a knowledge-based society.

Mr. Moderator, colleagues… within the past decade the push-pull factors that build and then test the mettle of a democratic nation were at play in Guyana. Between 2010 and 2015, the People's Progressive Party/Civic government, …

- Opened the media spectrum to exponentially increase the options for information transfer beyond the state media apparatus. This move quickly ushered in the proliferation of independent media channels across the various platforms.
- We introduced constitutional reforms for inclusive governance, guaranteeing among other measures, the Chairmanship for the opposition in Parliament on several key Parliamentary committees, including the powerful Public Accounts Committee.
- We established a constructional office of Commissioner of Information, guaranteeing universal access to state information to all citizens.
- We introduced a One-Laptop-Per-Family programme, with the first phase placing free mobile computers in the hands of 90,000 of the most vulnerable families, representing a 12% target of our total population size. This first phase was supported by several hundred community-based ICT Hubs providing internet access and training to beneficiary families.
- We introduced a Low Carbon Development Strategy with built-in carbon credit earnings mechanisms through a ground-breaking partnership with the Kingdom of Norway. Money earned from the facility was leveraged to guarantee self-determining development for indigenous communities through direct access to those funds.

Colleagues, within a single five-year term while we reverted to the opposition benches, the other party while in government, scuttled and unraveled many of these programmes and initiatives, setting the country back by several decades.
And, after losing its mandate to govern for another term, our democracy was held hostage. It took the full combined weight of the judiciary; the international community; and the

indefatigable will power of our freedom loving citizens, to restore democratic order in Guyana for the rightful winners of the elections to return to government.

Mr. Moderator, colleagues and distinguished delegates…, allow me to demonstrate the consistency of our government's commitment to safeguarding these fundamental principles of democratic governance being discussed here today, which we embrace as sacrosanct.
Since returning to office in 2020, …

- We have reinstituted and recalibrated all the related programmes halted by the previous government and indeed, we have gone much further in just two years…
- We have introduced an expanded ICT empowerment programme, with e-governance and national internet access at the heart of the initiative.

As a direct response to the challenges brought about by COVID 19, we streamlined internet services, including video-conferencing capabilities to almost 400 educational institutions and almost 1,000 central and local government and essential services entities across the country, and this has since expanded in both scope and reach.

- We've expanded the national fiber-optic and broad-band networks to ensure access in poor, remote and hinterland communities with the establishment of over 200 ICT Hubs. This project which included extensive training of indigenous communities was done through collaboration with UNDP.
- We've expanded e-governance to include a Prison Management System; an Integrated Immigration Software Architecture; an online application and tracking system for old-age pension; a safe-city vehicle identification and warrant information system for the police; and an e-business Women's Leadership and Investment Network.
- We have ratified the conventions of the International Press Freedom Coalition and just concluded a national conference and symposium in observance of World Press Freedom Day 2022. This activity saw the largest gathering and engagement of the media in Guyana's history, with the convergence of traditional and new media.
- We've launched the virtual 'Guyana Media and Communication Academy' in partnership with the world's largest online learning platform COURSERA, for the upskilling of the media fraternity, including Citizen Reporters, Social Influencers and Practitioners.
- We dismantled a decades-old private monopoly on telephone and other related services, thereby liberalizing the telecommunications sector.
- We launched the 'Guyana Online Academy of Learning' (GOAL), to provide scholarships from Certificate to PHD levels to 20,000 Guyanese citizens by 2025, along with a lateral programme called 'GROW', (Getting our people Ready for Opportunities to Work) … the

GROW programme will cater to all citizens who missed the path to a secondary education.

- And to ensure our country remains on its path to democratic transformation and full development, we have commenced a new round of constitutional reforms, including electoral reforms that will strengthen the bastions of our fragile democracy.

Mr. Moderator, Excellencies, colleagues, friends all… through these comprehensive and decisive interventions, our government has been able to achieve significant mileage on impacting the Sustainable Development Goals 1, 3, 4, 8, 9, 10, 11, 13 and 16.

Be assured that The Government of Guyana under the People's Progressive Party Civic remains resolute in safeguarding, advancing and expanding Inclusiveness, Access to Information and Knowledge-For-All.

We will continue to universalize these Sustainable Development Goals in Guyana, as we look forward to networking and collaborating across the widest reaches of the international community of democratic nations, to strengthen the pillars and bastions of freedom and development in Guyana, while we lend our support on the global stage, wherever and whenever it is needed.

I thank you.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

MALAWI

H.E. Mr. Gospel Kazako
Minister
Ministry of Information and Digitalisation

Questions:

What is Malawi doing for the people to easily access Information in the public domain to support the Information Society and protect them from misappropriation.

For many people in the developing world, especially in LDCs, mobile telephony and Internet access remain unaffordable. The cost of broadband Internet access remains above the affordability target set by the Broadband Commission for Sustainable Development – namely, 2% of monthly gross national income (GNI) per capita for a number of LDCs, what are Malawi's initiative being championed?

Access to public information is rooted in Malawi's supreme law, the Constitution of the Republic of Malawi, which the country adopted in 1995 after embracing a democratic system of government. Section 37 of Malawi's Constitution stipulates that: Subject to any Act of Parliament, every person shall have the right of access to all information held by the State or any of its organs at any level of Government in so far as such information is required for the exercise of his rights.

The Constitutional provision has been further solidified with the enactment of the Access to Information law in 2017. This law has now come into force when I appointed September 30, 2020, as the commencement date of this Act. In addition, in January 2021 I gazette the Access

to Information Act Regulations as a subsidiary legislation to facilitate efficient implementation of access to information.

The Government is currently building capacities of all public institutions to ensure that they are always available to provide information that is required by the public and as Government institutions we ensure as much as possible that our information is digitized to easy storage, retrieval, and access to the public. Government is also making sure that public institutions have mechanisms in place for easy access of information by the public and we are also promoting and encouraging proactive disclosure of public information.

The Government also fully appreciates that the digital space is playing a pivotal role in facilitating flow of information and as Government we are ensuring that people are fully utilizing the digital space to access public information. Government has adopted and applied various policy intervention to ensure that digital services are most importantly available but also accessible and affordable. To this effect Malawi has formulated the Malawi Digital Economy Strategy, which is promoting utilization of various digital services and tools to facilitate access to information in addition to harnessing the social and economic opportunities available in the digital space.

Malawi has one of the highest internet data prices in the Southern Africa region, mainly driven by its geographical positioning leading to high in-transit costs and undedicated supply of international bandwidth into the country.
The Government of Malawi's national development agenda, the Malawi 2063 and Malawi's Digital Economy Strategy are in line with the Fourth Industrial Revolution (4IR) and digital transformation of Malawi's economy. This digital transformation will be achieved through enhancing access to broadband coverage to 95% up from the current 35 percent of the population and increasing internet usage to 80% from the current 38%.
The Government of Malawi through the Ministry of Information and Digitalisation has come up with several initiatives to reduce the cost of connectivity and allow its citizens access ICT services.

INITIATIVE 1: DATA MUST FALL CAMPAIGN"
The Ministry of Information and Digitalisation provided its policy position on bringing down the cost of data and instructed Malawi's Communications Regulator to engage all telecommunications service providers to explore means and ways of reducing the cost of data.
Following those engagements between the Malawi Communications Regulatory Authority (MACRA) and telecommunications operators, data prices reduced significantly. Under the new rates, the cost of 1GB to 4GB data bundles are down by between 10% and 31% across the

country's two leading internet service providers which are Airtel and Telekom Networks Malawi.

It is important to note that this initiative pointed out to the new government's campaign manifesto, which included a commitment to reduce the cost of ICT services, through, among other things, review of the taxation regime of the ICT sector; extending broadband internet

connection to all urban and rural centers through roll out of a fiber optic cable network; and removal of all tariff and non-tariff barriers on equipment and devices (including laptops and computers, cables, modems, routers, etc.).

INITIATIVE 2: DIPLOMATIC DATA CORRIDORS

Another initiative being championed by the Government to reduce the cost of ICT services in Malawi, is through securing access to the new submarine infrastructure along the East African, West African and South African coasts.

The establishment of dedicated internet data corridors into Malawi is essential in addressing the challenge of high internet data cost.

The Government of Malawi through Malawi Communications Regulatory Authority (MACRA) is seeking to explore alternative means, long lasting and stable solutions to the increasing inbound internet capacity using alternative data corridors dictated by state-to-state agreements between Malawi and its neighboring countries.

These Diplomatic Data Corridors (DDC) initiative is expected to create cheaper and sustainable in-bound data channels that data operators in Malawi can access at a more reasonable rate, resulting in them passing on the savings to the consumer. This will lead in more affordable data consumed by the customers in the country. The DDC initiative seeks to establish these corridors with Tanzania, Zambia, Mozambique, South Africa, and Namibia.

INITIATIVE 3: FACILITATE ESTABLISHMENT OF LOCAL ASSEMBLY POINTS FOR SMART DEVICES

The total number of smart devices active on the Malawi networks is still deficient, standing at about less than 500,000 collectively between all the networks. This number, compared to the total SIM Card registered subscribers of 11.9 million, is too low and shows that many Malawians do not have access to the devices that can consume the internet data capacity that is imported into Malawi.

The low number of smart devices leads to low economies of scale by the operators to meaningfully make a return on their investment and effectively offer lower and competitive prices of internet services in the country.

The Government of Malawi is planning to identify strategic partnership for smart devices assembly. The Government believes that establishment of local assembly points for smart

devices will bring about economies of scale and reduce the prices of services and devices for both networks and end-users.

DOMINICAN REPUBLIC

H.E. Mr. José Montilla
Vice Minister of Digital Agenda
Ministry of the Presidency

Questions:

Did the 2030 Digital Agenda of the Dominican Republic consider the aspects of inclusion, transparency and closing the digital divide?

Did you involve all stakeholders in determining the best initiatives to address these issues?

The Digital Agenda 2030 of the Dominican Republic is our national strategy for digital transformation, and was developed on the basis of consensus, collaboration and participation of all the sectors involved, as well as the interest groups related to the Government, the private sector, universities and society. civil, where all the regions of the country were represented. In it, we set ourselves short, medium, and long-term goals, with objectives and lines of action that are aligned with the Sustainable Development Goals (SDG) and regional strategies such as eLAC 2022.

The objective of our strategy is to build a more competitive country with a better quality of life for its people by taking advantage of digital technologies, closing the digital gap that mainly affects the most vulnerable, thus contributing to achieving inclusive and sustainable human development.

The implementation of the 2030 Digital Agenda is monitored by the Digital Transformation Cabinet, which is headed by the President of the Republic and coordinated by the Ministry of the

Presidency, where organizations representing the different sectors of society participate in its different working groups, because in our country we are building the Digital Society together.

TANZANIA

H.E. Ms. Maimuna Kibenga Tarishi
Ambassador and Permanent Representative
Permanent Mission of the United Republic of Tanzania to the United Nations Office and other international organizations in Geneva

---

Questions:

What are the measures which have been taken by the United Republic of Tanzania to provide affordable digital services?

What initiatives has the United Republic of Tanzania made so far to bridge the Rural – Urban digital gap?

Affordability poses a major challenge hampering universal access to ICT services and products to majority of population particularly the low-income earners in rural and economically weak areas in different countries; and Tanzania is not exceptional. To this end, the government of the United Republic of Tanzania is committed to ensuring presence of affordable ICT products and services to all and that attainment of universal access goals is not being hindered by the challenge of affordability. The National ICT Policy 2016 clearly stipulates this commitment complemented by various initiative in this regard.

For the past years, the Government has been focusing on creating conducive environment including putting in place supportive policies that will translate into affordable communication services to end users. Particularly, the Electronic and Postal Communications (Access, Co-location and Infrastructure sharing) Regulations, 2018 requires sharing of passive and active infrastructure for infrastructure stipulated in the regulations and sets procedures for such

infrastructure sharing. It also requires co-location in order not to duplicate investment efforts. Infrastructure amenable for sharing include Space, Tower, Power, Shelter Transmission infrastructure such as Optic Fibre Cable as well as active infrastructure such as core nodes (switches, servers, database), radio access nodes and antenna. The main objective among others is to reduce investment cost by operators and thus reduce the cost of services.

Further to this, the government sets the Interconnection determination on cost-based interconnection rates among telecommunication network service providers in Tanzania. The process is participatory involving stakeholders in a transparent manner and considers the desire to promote competitive rates and attract market. To-date, voice call termination rate for termination of domestic traffic in Tanzania stands at 2.00 TSh/min. This is a significant drop in a glide path manner from the rate of 15.60 TSh/min back in 2018 making calls between different operators more affordable.

Not only the above-mentioned efforts but also The Government has made major investment in the National ICT Broadband Backbone by constructing 8,319 km of National ICT Broadband Backbone connecting neighbouring countries, all regional headquarters and connected with international submarine cables of SEACOM and EASSy. Tanzanians are already enjoying the benefits of this investment as prices of internet access and core transmission are continuing to drop significantly. The NICTBB and submarine cables have resulted in reduction of the cost of backhaul transport bandwidth by about 99% compared to the situation in 2009.

To complement these efforts, in June 2021 the Government waived value-added-tax on smartphones, tablets and modems in a move to reduce the devices costs making them more affordable and accelerate uptake of such devices in the country and facilitate penetration of broadband services.

In line with these efforts and as a result of good government policies, in 2021 a fibre manufacturing factory was launched in Tanzania. The factory has the capacity to produce up to 24,000 km of optic fibre per year. It is expected that among other benefits the cost per meter of optical fibre will go down and therefore increase network rollout and reduce investment cost in the sector.

Let me reiterate the Government's commitment to ensuring that all our people can afford communication products and services for social and economic development, and we welcome further cooperation in this regard.

It is a fact that the world economy is now digital and thus appropriate environment for all people to effectively participate in the digital economy must be created. The role of government is key in bridging digital divide that exists between rural and urban areas and facilitating ubiquitous connectivity. Nevertheless, the private sector plays a major role in this. Therefore, the Government has been working closely with the private sector in extending communication services to all citizens.

To this end, Government of Tanzania has been committed to ensuring that broadband infrastructure and facilities are significantly expanded throughout the country. We have in place a Tanzania National Broadband Strategy 2021 – 2026 that envisages construction of 86,000 km of Fiber Optic Cable to connect all wards in the country by 2026 in bridging the digital divide. To date, significant progress in investing in ICT infrastructure has been made which includes construction of the National ICT Broadband Backbone (NICTBB) and a state-of-art tier-3 National Internet Data Centre for hosting IT services to accelerate achievements of the goals and objectives of the Tanzania Development Vision 2025 and the National ICT Policy 2016.

The NICTBB with 8,319 km connects all regions, some districts as well as to the international submarine cables landing in Tanzania namely Eastern Africa Submarine System (EASSy) and SEACOM. The construction of another submarine cable (2Africa) is underway and is expected to be operational in 2024. Thanks to the Government deliberate effort of Public Private Partnership and incentives to the private sector to invest in this area as through this arrangement 2,595 km of metro fiber optic network have been constructed in collaboration with the private sector. The fiber optic network in the country attributes to over 30,000 km Optic Fiber Cable constructed. In this year, construction of 4,442 kilometres of the NICTBB is underway.

Further to this, the Government in 2006 established the Universal Communications Service Access Fund with a key role of bridging the digital divide between rural and urban areas. The Fund facilitates and coordinates communication services access to rural and urban underdeveloped areas through partnership with private sector to achieve socio-economic development in line with national policies. The Fund has proven to be an important tool in bridging the digital gap between rural and urban areas. Through UCSAF, the Government

provides subsidy to mobile operators to extend communication services to a set of unserved and underserved areas. The fund has facilitated extension of telecommunication services to 1,068 wards with 3,297 villages and over 12 million people. Further to this, UCSAF facilitates upgrading of sites currently operating in 2G technology to upgrade to 3G or higher in order to allow people enjoy broadband services. The Fund also implements other crucial ICT development projects including connecting schools and tele-medicine.

Another big and remarkable effort that Tanzania has made to facilitate connecting the unconnected is the auctioning of the digital dividend II spectrum that was made available following successful migration from analogue to digital terrestrial television broadcasting. In 2018 the Government successfully auctioned the 2x10MHz of spectrum in the 700MHz band designed to achieve the National ICT Policy objectives and bring various benefits to the nation including extending provision of mobile broadband services to a wider Tanzanian population especially those in rural areas. The Mobile Network Operators are continuing to use this spectrum to further bridging the digital divide and broadband inclusion in the country especially in rural areas.

These among others have led to extension of telecommunication coverage to 94% of the population in Tanzania and we are now working hard to ensure that the reaming 6% of the population are connected soon. To this end, the Government is continuing to invest heavily and welcomes investments in the area of infrastructure in order to attain the set goals.

CYPRUS

H.E. Dr. Stelios Himonas
Permanent Secretary
Deputy Ministry of Research, Innovation and Digital Policy

Questions:

Where does Cyprus stand in terms of bridging the connectivity gap?
What are your national plans to enable a Gigabit society for all?

Excellencies, colleagues and participants, Good afternoon.

It is an honor to be joining so many high-level representatives from the WSIS stakeholder community, on this great opportunity to exchange views and insights on a subject so critical and relevant to the future of our economies and societies.
I am sure we all agree that the recovery from the pandemic is digital. That the future is digital. We, therefore, need to accelerate our digital capabilities to achieve an efficient transition, at scale, working together and moving fast.

Bridging the digital divide is at the heart of this transition. As the world gets more and more connected, the connectivity gap is a key consideration we all need to address to make sure

digital transformation benefits everyone, every person, every home, every country and every organization.
In the last 2 years, Cyprus improved its coverage of Very High Capacity Networks (VHCN). The rollout of FTTH is currently underway, while following last year's licensing, 5G networks in the 700 MHz and 3.6 GHz bands are also being deployed. However, the take-up of Gigabit speeds is still significantly low, with only 0,2% of households having connections with speeds of at least 1 Gbps.

To further stimulate demand and supply, the Cyprus Government designed a number of targeted interventions, in the context of its new Broadband Plan 2021-2025. Specifically, we aim to provide access to fixed and 5G connections with a download speed of at least 100Mbps to all organized communities, as well as increase take up to at least 70% of households. To achieve these goals, we will subsidize the rollout of fixed and 5G networks in underserved communities where the private sector is unwilling to invest, making effective use of available EU financial instruments including the Recovery and Resilience Fund, Structural Funds and CEF2 Digital. Also, to boost take-up and stimulate demand for new VHCN subscriptions, we will introduce within the year a new Voucher scheme in the form of a subscription subsidy.

However, solving the connectivity puzzle is not enough to ensure the whole of society can fully reap the benefits of digital. We need to provide high quality services to the public and also create a digitally fit society and businesses. To this end, we have undertaken a number of initiatives: firstly, we are redesigning the enterprise architecture of government IT systems; secondly, we are industrializing the delivery of digital services, using agile methodologies, and thirdly, next month we are announcing a grant scheme to help our businesses go digital, use the cloud and adopt new technologies such as AI. Last but not least, we are building what we call "the Digital Academy" to strengthen the digital skills of citizens throughout society, the workforce, the unemployed and the public at large. To tackle the talent shortage in the ICT sector, we are introducing, reskilling and upskilling training programs for ICT professionals, while also working with our Universities and the ICT industry to modify educational curricula to match market needs.

Dear friends,
It is clear that digital transformation is not an easy task, but a rather complex one that requires targeted actions across a wide range of areas. International initiatives, and in particular global ITU events such as this Forum, are truly valuable in designing an efficient response to the numerous challenges lying ahead. We all need to stay ahead of developments, exchanging views and best practices, and working together to ensure a just, inclusive and prosperous future for all.

Thank you.

THAILAND

Ms. Ajarin Pattanapanchai
Permanent Secretary
Ministry of Digital Economy and Society

Questions:

What are Thailand's government policies that aim to drive digital inclusion agenda?

What are Thailand's success stories and best practices that promote inclusiveness?

Excellencies,
Ladies and Gentlemen,

Good evening from Bangkok,

On behalf of the Ministry of Digital Economy and Society, Thailand, it is a great honour and privilege for me to be part in this session of the WSIS Forum 2022.
First of all, let me introduce the Thailand Digital Economy and Society Development Plan to you all. The Royal Thai Government, through the Ministry of Digital Economy and Society, launched a National Plan as a framework to utilize digital technology as a key mechanism for national economy and society development.

Distinguished participants,
Thailand is now at the second phase of the plan which is called digital inclusion. We are committed to ensuring that everyone will benefit from ICT and digital technology.

The strategy is to focus on encouraging all stakeholders to take part in the digital economy and society after the first phase of providing broadband access for all, since accessible and equitable ICTs are key enablers to make sure that no one is left behind.

This second phase means creating equal opportunities for access and use of digital technology by the public at large, in particular the elderly, the disabled and those living in remote areas. Moreover, it covers developing people's digital literacy, including their critical thinking skills and their ability to analyze media and information in free and open digital society.

Excellencies,
Every sector in Thailand must participate in the digital economy and society, as prescribed by the government's public-private-and people partnership approach.
Some of various prioritized projects and initiatives have been implemented and prepared for the next phase are as follows;

Talking about infrastructure dimension, digital connectivity is the necessary foundation of the digital economy, Thailand has collaborated with relevant authorities to deploy the Village Broadband Internet Project that provided free high-speed Internet network access to rural villages throughout the country, which contributed to bridging the digital divide and leading to affordable access to sources of information and public services.

The project led to another initiative called "Digital Volunteer." They are a group of villagers that volunteer to help and teach people in the community on how to use digital technologies in the most effective and efficient way such as learning credibility of information and knowledge, suggesting basic data analytic and raising awareness of online threats.

National Statistics Report 2021, reveals that the country has achieved a significant progress in driving Thailand's digital economy and bridging digital divides as our internet users reach 85.3 % of the total population, compared with 60.8% in 2018. The rising growth of internet users has generated the value of the consumer goods and e – commerce market at more than 7 billion US dollars.

Moreover, the Ministry has planned to draft policies and guidelines in order to support people with disabilities and the elderly, which cover measures in promoting the use of digital technology for the disabled and elderly including organizing trainings on using mobile applications.

Prior to that, the Ministry launched a mobile application called D4D or Digital Service for Disabilities with the deployment of AI technology that offers many features to make life easier for the disabled such as Smart Eye, Smart Ear and Location Finder.
Recently, the Ministry and the ITU Asia-Pacific Regional Office has jointly organized a hybrid training for young girls and women in Thailand under the program Girls in ICT Day 2022. We provided the courses on e-Commerce and raising awareness of internet safety with the aim to highlight the role of women in our society and increase young girls' digital skills for their future career.

Ladies and gentlemen,
Government dimension is also a key enabler. In this second phase, government agencies will be connected and integration of data among agencies will be completed. Government executives will be able to access data at every level and are able to take advantage of big data analytics in their planning and decision-making.

The Government Data Center and Cloud Services or GDCC is a primary project to provide Cloud Services for government agencies. They will be able to access to digital resources on demand.
During the crisis of the COVID – 19, many mobile applications were developed on cloud supported by GDCC such as applications for the disease contract tracing and vaccination data.
People will also be given opportunities to access data that are security and privacy protected. This will lead to improved government operations, enhanced bureaucratic efficiency, and decentralized public administration.

Distinguished Participants,
It is important that the overall strategies under the plan must be placed on people participation. The approach to digital inclusiveness will take into account the use of digital technology in a widespread and pervasive manner, turning into a Thai digital society where everyone can become a producer and a value creator.

According to the upcoming World Telecommunication Development Conference's with the theme of "Connecting the unconnected to achieve sustainable development," Thailand stands the commitment to work with the ITU Members and ITU in sharing knowledge and best practices, as well as putting our best efforts to achieve the Sustainable Development Goals to uplift the standards of living of our people.

Thank you.

JAMAICA

Mr. Ansord Hewitt
Director General
Office of Utilities Regulation

Questions:

Given the exciting possibilities being promised by new technologies and the gaps exposed and setbacks caused by the Covid 19 pandemic, what are the some of the actions being taken by Jamaica to bridge the digital divide?

What are some of the actions being taken by Jamaica to ensure inclusiveness for vulnerable groups in society such as persons with disabilities?

Emerging ICT technologies and digital services provide phenomenal possibilities to create a more inclusive and accessible world. At the same time, unless deliberate and urgent action is taken to enhance digital inclusion and access, societies will become more polarised, with deepening digital and social divides. The digital divide is clearly more than just who has access to the internet and who does not. Addressing it, therefore involves an examination of related issues such as access to devices, affordability, digital literacy and relevance of content.

Connectivity - As it did in many other countries, the COVID-19 pandemic exposed the wide chasm between the connected and the unconnected in Jamaica and the fact that the existing telecommunications infrastructure (both private-owned and public-owned) did not extend to a significant portion of Jamaicans especially those outside of the urban/major town centers. The situation was particularly acute in schools. Of the 980 public schools, about 400 had poor internet service and 220 were without access. Several expedited initiatives were undertaken to address this problem.

Buildout of a National Communication Backbone to facilitate the provision of high-speed internet to 461 public entities. As of 2022 May, ninety-five percent (95%) of the Backbone was completed. To ensure network redundancy and reliability, the Backbone consists of both fibre and microwave technologies. The buildout has been facilitated by the private sector with support which includes providing free access to infrastructure such as poles and dark and aerial fibre.

Community Wi-Fi hotspots are being utilized as one business model to address connectivity challenges. With this bandwidth sharing approach, the total cost for connecting an end-user can be significantly reduced when compared to the typical direct to premises approach. The country's Community Wi-Fi Programme focuses on unserved and underserved communities and is on target to complete the implementation of 189 Community Wi-Fi hotspots by the end of 2022 May. There are plans to implement an additional 63 Community Wi-Fi hotspots during 2022/23. Access to free Wi-Fi internet is also being provided in major town centres, public green spaces and parks across the island via the Connect Jamaica (Public Wi-Fi) Programme.

Satellite technology with its offer of ubiquitous, instant infrastructure and a cost-effective platform compared to terrestrial alternatives in challenging topologies also offers another solution. During the pandemic, the government partnered with a satellite internet provider to connect schools in deep rural communities and 100 schools were connected in 48 days. Steps are being taken to connect additional rural schools via satellite technology. A tender to connect 481 public schools via satellite technology, was completed in early 2022. The technology is also being utilized in the provision of Community Wi-Fi hotspots and free public Wi-Fi.

Device availability and affordability – With students being required to engage in distance learning modalities, it became obvious that the absence of suitable internet-enabled devices in households was an immediate barrier to access. For many households in Jamaica, their primary gateway to the internet was via their smartphones. Given constraints such as data caps, small screens as well as trouble submitting files and documents, the smartphone ought not to be the "go-to" tool for learning at home. The Government has implemented programmes such as Tablets/Laptops in Schools and Own your Own Device (OYOD) to ensure that students and teachers have appropriate devices for learning from home. The first programme provided teachers and students with the devices while the second provided parents/guardians with vouchers which can be used to acquire devices for their children. The Government also partnered with mobile operators to facilitate access to the internet for students through the provision of low-cost data plans and zero-rated data access to frequently used learning platforms and websites.

What are some of the actions being taken by Jamaica to ensure inclusiveness for vulnerable groups such as persons with disabilities?

The inclusion of persons with disabilities in all aspects of society is a key challenge of the global development agenda. Jamaica's National Development Plan, Vision 2030 speaks to disability-inclusive development. The first of the Plan's four goals seeks to empower Jamaicans to achieve their fullest potential. Under this goal is the national outcome of "Effective Social Protection" which seeks to "make sure that persons with disabilities have equal access to goods and services enjoyed by others in the society." An objective of the Telecommunications Act is the promotion of vulnerable groups in the society. The Act provides for persons with disabilities ("PWDs") to be among the major beneficiaries of ICT projects funded by the universal service fund. This has seen the provision of connectivity and specialized devices to the educational institutions for PWDs as well as organizations which support PWDs.

Jamaica is also taking steps to ensure that PWDs have equivalence of access to and choice of telecommunications services and devices. Measures being considered for implementation include:

- Specialized Plans
- Accessible Complaints Procedures Including Third-Party Notification Bill Management and Fault Notification
- Accessible Directory Enquiry Service
- Accessible Billing
- Accessible Facility to Test Compatibility of Devices before Purchase

The OUR expects to issue a decision document in relation to these measures by the end of 2022 July. Leading by example, however, we have implemented accessibility measures within the organization including disability awareness training for staff, creation of an accessible website and implementation of accessibility features in our complaints handling procedures.

TIMOR-LESTE

Mr. Joao Olivio Freitas
Chairman and President of the Board of Directors
National Communications Authority

Questions:

Mr. Freitas, can you tell us in which sectors are inclusiveness and access to information and knowledge currently the most important in your country?

And related with that, what has Timor-Leste done to provide access to information and knowledge in those sectors?

Thank you for your thoughtful questions. Yes, indeed like many speakers before me, I agree that to achieve inclusiveness and to provide access to information and knowledge requires a set of enablers that are not unique to any particular countries. These enablers are requirements that span both infrastructure and human factors. First we need connectivity and then we also need the people to acquire the necessary skills to be able to participate in the information society. So governments and regulators around the worlds adopt and implement policies directed towards certain objectives in tackling those factors based on specific conditions in their countries.

In Timor-Leste, we started almost from a green-field in 2002. The government then had to rebuild the telecommunications network that it proceeded quickly to set up a competitive market as to benefit from private investments. Fast forward today, we have 4 mobile service providers and 4G services in all municipal towns across the country.

Certainly, access to information and knowledge is important to all sectors of our society. Now, to your question about the most important ones, I would say the education sector. This is especially true as our population has a large section of youth.

To achieve inclusiveness and to provide access to the education sector, we are developing the Timor-Leste Research and Education Network (TLREN). To emphasize its importance, we have classified the TLREN connectivity as a priority item under our Universal Access program.

At this stage, the membership of TLREN comprises tertiary educational institutions and select government agencies. It aims to provide connectivity and to develop digital literacy skills. We expect that TLREN will be able to develop the digital platforms needed to serve the secondary and elementary schools not too far in the future.

To date, the Government has committed a 10Gbps dedicated capacity on the first submarine cable system for TLREN. This public funded cable is being constructed. It will be operational from late 2023.

Thank you all.

QATAR SUPREME COMMITTEE

Mr. Sami Al-Shammari
Chief Technology Officer

Questions:

Qatar is hosting the biggest ever event world cup 2022 in November which will be demanding many ICT services in different levels, how Qatar and supreme committee is ready for this part of organizing the event and hosting almost 1.5 Million spectators?

Missing Statement

FUNDACION ABBACOL

Mr. Farid Lozada,
President

Questions:

How AbbaCol is bringing digital opportunities into the rural areas of Colombia?
How AbbaCol is applying the Sustainable development goals agenda 2030 of the United Nations to reach digital opportunities in Colombia?

Distinguished audience and speakers. Greetings from Colombia. Currently AbbaCol is focussing its work on digital inclusion and the sustainable development goals agenda 2030. For those remote areas of Colombia that do not have access to internet we are working in hand with the local municipalities to bring digital inclusion especially for the schools so vulnerable communities can have access to internet but as well access to computers and other IT equipment's. Building digital bridges opportunities is important to generate quality access to those remote areas in the country. The importance of international cooperation is key so we can build together connectivity but as well build new opportunities for the most vulnerable population. AbbaCol is currently developing programmes and projects focusing on digital transformation to create a culture of e-inclusion between the communities.

Our current project is focused on quality education – Sustainable development goal no. 4 and focussing this on digital opportunity so vulnerable children can have a computer in order to study. With this AbbaCol is building capacity for inclusive education in Colombia at the same time community participation to ensure equitable access to information and communication for the most vulnerable population in Colombia

Session Three: Building Confidence and Security in the use of ICTs

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/458

Moderated by High-level Track Facilitator:
Dr. Ahmad Sharafat, Professor and Senior Consultant, Tarbiat Modares University, Iran

WSIS Action Line Facilitator:
Dr. Chaesub Lee, Director, Telecommunication Standardization Bureau, International Telecommunication Union

Speakers:

1. **Cameroon -** Prof. Philémon ZOO ZAME, Directeur Général, Agence de Régulation des Télécommunications, Cameroon
2. **Peru -** Ms. Marushka Chocobar, Secretary of State, Secretariat of Government and Digital Transformation at Presidency of the Council of Ministers
3. **Mexico -** Dr. Felipe Alfonso Hernández Maya, General Coordinator of User Policy Federal Telecommunications Institute (IFT)

4. **Huawei Technologies -** Ms. Afke Schaart, Senior Vice President, Global Government Affairs Department
5. **Sweden -** Mr. Dan Sjöblom, Director General, Swedish Post and Telecom Authority
6. **VimpelCom,**Mr. Rashid Ismailov, President
7. **Arab ICT Organization,** Eng. Mohamed Ben Amor, Secretary General
8. **ISOC Tanzania**, Mr. Nazarius Kirama, President/CEO

Executive Summary by High-Level Track Facilitator

The topic is of paramount importance for enhancing and expanding the use of ICTs for sustainable development, particularly in developing countries, and corresponds to WSIS Action Line C5, for which ITU as a specialized agency of the UN is the lead facilitator.

The High-Level Panelists were asked two questions each on their views and best practices as well as challenges on building confidence and security in the use of ICTs. Since the High-Level Panelists were from different sectors, a comprehensive and inclusive picture was presented to the session.

The High-Level Panelists emphasized that in the digital age, trust is everything, and cybersecurity
is crucial to ensuring universal, trustworthy, and equitable access to connectivity.

The High-Level Panelists were of the view that the ITU's role in setting standards, undertaking studies, and assisting different stakeholders to build confidence and security in the use of ICTs is
of vital importance.

The High-Level Panelists were also of the view that the approach should be comprehensive and inclusive, leaving no potential players and contributors behind. The need to enhance and expand the participation of women was also emphasized.

The High-Level Panelists emphasized the importance of public awareness as well as skilled workforce in building confidence and security in the use of ICTs.

The High-Level Panelists also underlined the need for international cooperation and sharing of

best practices in this area.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

CAMEROON

Prof. Philémon ZOO ZAME
Directeur Général
Agence de Régulation des Télécommunications

Questions:

How does the resilience of ICT infrastructure manifest itself in Cameroon?

And what would be the concrete usefulness, for a country like Cameroon which has made significant progress, of the possible establishment of a Global Fund for the development of ICT?

Cameroon is quite well off in terms of the resilience of ICT infrastructure because we have an electronic communications transport operator offering other concession holding and network operators national and international transmission capacity services, such as:

- Urban and interurban transmission services via fiber optic, microwave or satellite links (VSAT) ;
  International transmission services through four (04) submarine fiber optic telecommunications cables and a satellite teleport;
- Internet connectivity.

Moreover, each operator holding a concession has a national transmission network covering the entire country as well as the capacity to establish direct international access.

Also, Cameroon is currently finalizing the deployment of a National Emergency Telecommunications Network (RTNU) specifically dedicated to calls to emergency services and meant to be used by the populations around the country.

Furthermore, the Regulator of the Telecommunications sector in Cameroon (TRB the Telecommunications Regulatory Board) has acquired and put into service two (02) years ago, an emergency electronic communications platform eLTe. In the event of disasters that totally or partially affect the operation of networks open to the public, the system will enable the rapid deployment to all parts of the country of a mini 4G mobile telephone network, to be operated in rescue and emergency operations and used for remote supervision of the said relief operations.

Despite decent progress in telecommunications and ICT infrastructure such as the fiber rollout, Cameroon, like many other African countries, is still trapped in many issues related to education, agriculture and food, public health, basic infrastructure and security. This leads to the allocation of available resources to areas classified as priority.

Due to the unavailability of adequate resources to allow the optimal development of telecommunications and ICT infrastructures on the entire country, the penetration rate of fixed and fixed broadband telephony remains very low (less than 4%) and the internet penetration rate in 2021 was around 13%.

In my presentation, I stated various statistical data which clearly portray the relative weakness of our performance in terms of penetration of ICTs in the society. The main reason lies on the inadequacy of the aforementioned infrastructures which do not allow serving the national territory optimally and meeting the needs of administrations, businesses and households in terms of access to ICT resources.

However, in the current global economy, meetings between economic actors from the five (05) continents essentially occur through electronic communication means, in particular the Internet.

Therefore, to allow greater participation of developing countries, such as Cameroon, in the emerging global economic order thus established, we believe that enhanced support should be granted to the development of critical telecommunications and ICT infrastructures, with spillover effects on the economies and the development of the society in terms of well-being and inclusion.

In this regard, we suggest the possibility of setting up a Global Fund for the Development of ICTs, under the aegis of the United Nations, the action of which would complement the one carried out by specialised institutions such as the ITU. The implementation of this Fund could involve multi-party entities, such as international telecommunications operators and multinationals in the ICT sector (Google, Apple, Facebook, Amazon, Microsoft, Whatsapp, etc.) which have large pools of potential customers in developing countries.

Such support will thus enable developing countries, which huge potential, to upgrade their performance in terms of access to ICTs, well-being and inclusion of their populations, on the one hand and to contribute effectively to the development of the world economy, on the other hand.

PERU

Ms. Marushka Chocobar
Secretary of State
Secretariat of Government and Digital Transformation at Presidency of the Council of Ministers

---

Questions:

How is public awareness of the responsible use of digital technologies generated, and what is the value of countries' interaction with international mechanisms?

What is the representation of women in Digital Security, and how can we encourage more women to embrace their cybersecurity superpowers?

Missing Statement

MEXICO

Dr. Felipe Alfonso Hernández Maya
General Coordinator of User Policy
Federal Telecommunications Institute (IFT)

Questions:

What do you consider to be the main issues that governments should work on in terms of cybersecurity?
What actions are being implemented from the IFT of Mexico in terms of cybersecurity?

Missing Statement

HUAWEI TECHNOLOGIES

Ms. Afke Schaart
Senior Vice President, Global Glovernment Affairs Department
Huawei Technologies, China

Questions:

In the new digital era, cyber security resilience based on anti-attack capabilities and quick recovery capabilities will play a role in infrastructure construction, to ensure cyber security and provide more secure and reliable information services for society. What roles and responsibilities should different stakeholders play in building cyber security resilience?

In the telecommunication field, what roles should stakeholders play to enhance knowledge and information sharing of 5G cyber security management across regions, countries, and sectors, to move to a cyber resilient and cyber secure world? What measures, baselines, and practices are we sharing in terms of governance, regulation, technology, and standards?

Missing Statement

VIMPELCOM

Mr. Rashid Ismailov
President

Questions:

From the perspective of telecom carrier, could you elaborate on the importance of security and trust in the field of telecommunication?

Missing Statement

Arab ICT Organization

Eng. Mohamed Ben Amor
Secretary General

Questions:

Covid-19 pandemic has accelerated digital transformation across the world, what is your vision about gaining the user's trust in the digital world and what role AICTO is playing at this level in the Arab region?

Last year, AICTO has developed the Arab vision of Cybersecurity, could you give us a word of description of this strategy: its goals and outputs, and to what extent do you think it will enhance the cybersecurity readiness and response to the cyber threats within the Arab countries?

La crise sanitaire Covid-19 a confirmé l'importance de la digitalisation et elle était un vrai tremplin pour l'accélération de la transformation digitale à l'échelle mondiale via l'augmentation des activités et services numériques depuis le début de l'année 2020.

Nous comme acteurs dans le domaine des TICs, nous œuvrons pour que cette transformation digitale soit digne de confiance.

Et ayant conscience de l'importance cruciale de la confiance numérique dans le processus de transformation digitale dans la région arabe, AICTO a lancé plusieurs initiatives et projets. Parmi ces projets, le projet AAECA-Net « le réseau régional de confiance numérique »
AAECA-NET Est un réseau interrégional multi-acteurs pour la confiance numérique dans les régions arabe et africaine. Il est aussi ouvert pour tous les acteurs à l'échelle internationale œuvrant pour la protection et la sécurisation des transactions électroniques.
Les trois principaux objectifs de AAECA-Net ; sont

1. La convergence et l'harmonisation des cadres règlementaires et juridiques
2. La reconnaissance mutuelle des services de confiance numérique
3. On vise aussi l'Harmonisation et le développement des normes et standards liés à la confiance numérique

Jusqu'à ce jour AAECA-Net compte 11 pays membres représentés par leurs autorités de certification électronique des deux régions.

Dans le cadre du suivi des efforts et des avancements des pays arabes et africains en matière de confiance numérique ; on a aussi lancé au début de cette année une enquête pour s'informer sur l'état des lieux et leurs réalisations en la matière.

Les résultats de cette enquête serviront comme un outil clé pour la création d'un cadre commun pour les services de confiance numérique.

On considère que la confiance numérique et la cybersécurité sont des priorités majeures et nécessitent des solides relations de coopération aux niveaux régional et international afin de créer une approche collaborative avec les contributions de toutes les parties prenantes.
Dans ce cadre, AICTO mise toujours sur la collaboration et la coopération régionale et internationale.

Dans le cadre de ce projet, on a signé un accord de coopération (MoU) avec l'Institut européen de normalisation des télécommunications.
On collabore aussi avec "Asia-PKI Consortium" pour bâtir un cadre de travail qui favorise le renforcement des actions communes, pour servir les intérêts des pays des régions arabe, africaine et asiatique.

Le sujet de Cybersécurité est un sujet de haute importance dans notre stratégie et plan d'action.

C'est dans ce cadre et sur la base de la résolution du Sommet arabe pour le développement économique et social en 2019 que AICTO a publié l'année dernière « la vision stratégique Arabe de Cybersécurité ».
L'objectif derrière le lancement de cette Vision Stratégique Arabe de Cybersécurité est de travailler vers une "Société Arabe numérique sûre, unie et intégrée dans l'économie numérique globale qui assure son autonomie dans le domaine des solutions et expertises qui boostent la confiance numérique et qui protège le Cyberespace Arabe."

Société arabe sûre : une société arabe sûre en fournissant des conditions et des exigences objectives pour assurer la cybersécurité et renforcer le sentiment de sécurité pour tous les membres de la société.

Intégrée : inclusive et dépendante de l'interaction de toutes les parties prenantes Intégrée dans l'économie numérique globale : en formulant les mesures de sécurité organisationnelles et techniques nécessaires pour contrecarrer les dommages potentiels à la lumière des normes internationales approuvées et des meilleures pratiques et des lignes directrices claires grâce auxquelles les entreprises et les acteurs économiques peuvent opérer en toute sécurité pour le développement de produits numériques nouveaux et innovants et services qui font partie de l'économie numérique.

Dans le document de la vision Arabe commune de la Cybersécurité, AICTO a pu identifier la situation des pays Arabes concernant l'infrastructure et les cadres légaux liés à la cybersécurité. Et puis proposer quelques initiatives, à l'instar de la création du CERT Arabe, un groupement Arabe reconnu à l'échelle régionale et internationale, la révision des législations et des lois, le renforcement des capacités et la création d'un observatoire pour les indicateurs de la Cybersécurité dans la région Arabe.

Toutes ces initiatives vont contribuer d'une manière directe sur le renforcement de la préparation (readiness) des pays Arabes face aux menaces cybernétiques et sur les actions à mener pour diminuer l'impact des attaques dans ce monde virtuel.

Dans la suite de ce travail, AICTO (avec des partenaires de la région) est en train de préparer pour lancer la "Stratégie Arabe de Cybersécurité". Cette stratégie sera focalisée sur la fédération des efforts et à la synergie entre tous les acteurs à l'échelle arabe, régionale et internationale pour établir une approche collaborative vers la promotion d'un espace numérique ouvert et sécurisé pour tous et partout.

ISOC TANZANIA

Mr. Nazarius Kirama
President and CEO

Questions:

Mr. Kirama, I understand that as a civil society stakeholder in Tanzania, you are involved in building confidence and trust in the use of ICTs for the end-users. How are you doing this?

On the training and awareness to build confidence and trust you are talking about, are there specific groups that you are engaging in Tanzania in these areas?

Statement Missing

Session Four: Bridging Digital Divides

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/456

Moderated by High-level Track Facilitator:
Ms. Timea Suto, Global Policy Lead, International Chamber of Commerce, France

WSIS Action Line Facilitator:
Mr. Preetam Maloor, Head, Emerging Technologies Division
International Telecommunication Union

Speakers:

1. **Estonia -** H.E. Dr. Nele Leosk, Ambassador-at-Large for Digital Affairs, Ministry of Foreign Affairs
2. **Bolivia** - Mr. Néstor Ríos Rivero, Director Ejecutivo, Autoridad de Regulación y Fiscalización de Telecomunicaciones y Transportes
3. **South Africa -** Dr. Keabetswe Modimoeng, Chairperson, Independent Communications Authority of South Africa
4. **Uruguay -** Ms. Mercedes Aramendía, Presidenta de Directorio de URSEC, Presidenta de Directorio de Unidad Reguladora de Servicios de Comunicaciones URSEC
5. **Botswana,** Ms. Maitseo Ratladi, Director, Broadband & Universal Access and Services Botswana Communications Regulatory Authority
6. **Qatar**, Ms. Aljazay Saleh Rashid Al-Sulaiti, E-Government Programs & Standards Department Director, Qatar E-government Portal Department Acting Director Ministry of Communications and Information Technology

Executive Summary by High-Level Track Facilitator

Introduction

The High-Level Policy Session on Bridging Digital Divides took place on 31 May 2022 and discussed dedicated and effective actions to help deliver meaningful connectivity to everyone, everywhere, as well as the mix of economic, technical, financial policy and regulatory approaches necessary to support such actions.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

The one-hour session saw a lively discussion with distinguished representatives of:

- ITU;
- the Ministry of Foreign Affairs of Estonia;
- Telecommunications and Transport Regulatory and Oversight Authority of Bolivia;
- Independent Communications Authority of South Africa;
- Telecommunications Authority of Trinidad and Tobago;
- Communication Services Regulation Directorate of Uruguay;
- Communications Regulatory Authority of Botswana; and
- the Ministry of Communications and Information Technology of Qatar.

The session kicked off with an overview of the topic delivered by ITU, as a the Action Line Facilitator, sharing key statistics on the current state of digital divide and calling for continued collaboration to bridge the persisting divide. Panellists then discussed how their countries and organizations approach the digital divide, what are some of the best practices and lessons learned for the broader WSIS community to build on, and what the road ahead looks like.

Vision

The session highlighted the need for greater collaboration and multistakeholder dialogue. Participants underlined the need for shared vision, objectives and joint action across government agencies, across the entire digital ecosystem and across all impacted stakeholders in order to better understand the digital divides, devise effective solutions to bridge them and improve cooperation so that all can share in the benefits of the information society.

Fresh priorities

A number of participants highlighted the close link between digital divides and trust in digitalization and technology. They underscored the need to **build a transparent and trustworthy policy environment** and build effective cybersecurity, data protection and privacy strategies to help reinstate trust in ICTs and digital technologies. They also noted the need for awareness raising, information sharing and capacity building initiatives as effective instruments that fosters the trust of users, businesses and governments alike.

Emerging trends

In sharing their own projects, initiatives and lessons learned, participants noted the need forn:

- Holistic view of the digital ecosystem: Policies should foster investment, competition, and innovation in the development and deployment of broadband services and connectivity devices, with the aim of expanding affordable access and end user choice for broadband connectivity. At the same time policies should facilitate investment in and enable the development of content and services that helps drive and sustain adoption, including through expanded e-government services. Governments should also invest directly in digital literacy and skills development.

- Effective spectrum policies: Policies should aim to ensure that sufficient broadband-capable spectrum is made available and be flexible and purpose-driven when deciding upon licensing and permit processes.
- Base policies in evidence and data: When targeting remote and rural areas, policymakers should strongly consider the increased complexity of delivering connectivity, and provide specific, adapted, flexible and non-discriminatory policy solutions in these areas that are informed by accurate information and reliable data about their target population.

Opportunities

Participants in the session highlighted how expanding meaningful connectivity and bridging the digital divides is not the goal, but a means to unlocking broader development goals. Meaningful connectivity opens opportunities for economic and social growth such as financial inclusion, broad access to education and healthcare and improved avenues for public services and e-government services to reach all citizens.

Key challenges

Speakers noted that the connectivity gap and its causes are not uniform. Inequalities in connectivity are closely correlated with geographic location, economic opportunity, education, gender as well as social and cultural norms and governance approaches. For example, 96% of the unconnected people live in developing countries, most often in rural areas. Also, affordability remains a problem, with roughly half of the world's economies falling short of the UN Broadband Commission for Sustainable Development's target, both for mobile (43%) and fixed (56%) broadband connections.

They also noted how developing, deploying and maintaining networks depends largely on long-term investments, whether public, private or in partnership. Given the large number of people still unconnected, there is significant growth opportunity and investment potential in expanding Internet access and increasing adoption. However, there are also large and varied risks associated with such investments that investors seek to minimise or mitigate at every step of a transaction. Bridging the digital divide means finding the right policy incentives to encourage investment and minimize risks.

Links to WSIS Action Lines and Sustainable Development Goals :

This session was strongly linked with all of the 11 WSIS Action lines and 17 SDGs.

Case Examples

Participants shared projects they lead and/or are collaborating on. They highlighted:

- The GovStack initiative - a multi-stakeholder initiative led by the German Federal Ministry for Economic Cooperation and Development, Gesellschaft für Internationale Zusammenarbeit (GIZ), Estonia, the International Telecommunication Union (ITU) and the Digital Impact Alliance to help governments build effective and cost-efficient digital government services;
- The National Telecommunications Program for Social Inclusion (PRONTIS) of Bolivia that aims to promote the expansion of telecommunications networks and the development of content and applications, for the achievement of universal access in rural areas and areas of social interest;

- The release of the International Mobile Telecommunications (IMT) through an auction in South Africa as one of the key interventions to stimulate economic recovery following the COVID-19 pandemic;
- Rooting connectivity strategies and policies in the findings of a digital divide survey in Trinidad and Tobago ;

- Holistic approach to develop long-term, sustainable policies in Uruguay through the development of digital skill, encouraging innovation, working in a transparent way to build trust and analysing existing regulations to update, modify, simplify or eliminate what is necessary;
- Capitalizing on mobile broadband networks in the rural areas of Botswana to deliver digital financial services and apps (Mobile Money, Cellphone Banking) or to enable online government services such as payment of taxes and utility bills or company registration;
- Implementing a hybrid model in Qatar to help increase the uptake of new ICT services, through the combination of policy and technology adoption with a change management model, called AKAC (awareness, knowledge, ability and reinforcement).

Road ahead

The session provided common understanding of goals: inclusive and meaningful access to ICTs, relevant services and content, skills and capacity building as well as fostering trust in the digital environment and emerging technologies, and it highlighted that the road towards these goals is based on holistic and evidence-based policymaking and international collaboration rooted in multistakeholder dialogue.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

ESTONIA

H.E. Dr. Nele Leosk
Ambassador-at-Large for Digital Affairs
Ministry of Foreign Affairs, ESTONIA

Questions:

Estonia is a leading country with a strong innovation ecosystem, a seamless digital government, and a strong cooperation agenda worldwide. What are the challenges in digital transformation today and how digital cooperation can support overcome them?

Estonia is a Founding Partner of GovStack Global and you recently announce Estonia's integration into the Digital Public Goods Alliance, these follow Estonia's commitment to sharing best practices and digital public goods like X-Road an open-source interoperability platform used now by more than 15 different organizations around the world. Could you please share with us what GovStack is about, how is this initiative coming along, and very importantly how the WSIS community can benefit from it? ANNOUNCEMENT OF THE WSIS PRIZE during the question response.

Missing Statement

BOLIVIA

Mr. Néstor Ríos Rivero
Director Ejecutivo
Autoridad de Regulación y Fiscalización de Telecomunicaciones y Transportes

---

Questions:

What were the regulatory measures that were considered to promote sustainable development in Bolivia through ICTs?

What are the most important ICT tools to promote sustainable development in Bolivia?

The Information and Communication Technologies have contributed significantly to the development of society in the Plurinational State of Bolivia, framed in the 17 objectives established by the United Nations for sustainable development, however, to achieve this contribution it has been necessary the elaboration of state policies and regulations that promise its use.

Based on the provisions of Paragraph I of Article 20 of our Political Constitution of the State, telecommunications are considered a basic service, under this concept, State policies have been developed that contribute to access to this service, mainly in rural areas. and vulnerable sectors, resulting in recent years, access to tele-education, teleworking, electronic commerce and other benefits offered by internet access and telecommunications in general.

Our National Telecommunications Program for Social Inclusion - PRONTIS has the purpose of promoting the expansion of telecommunications networks and the development of content

and applications, for the achievement of universal access in rural areas and areas of social interest. We must assume views with political commitment at the service of our peoples. In this sense, it is expected that by April 2023, 100% mobile service coverage will have been reached in all municipal capitals

by the 3 mobile operators, based on the mandatory expansion of infrastructure established in the granting of license to adjust frequencies. Everything mentioned is a reflection of the philosophy of the VIVIR BIEN in ICTs, we are sure that this philosophy is fundamental, the VIVIR BIEN shows us a horizon of community, which is summarized in the Aymara thought "**Let us all go together, that no one left behind, that we all have everything and that no one lacks anything''**

SOUTH AFRICA

Dr. Keabetswe Modimoeng
Chairperson
Independent Communications Authority of South Africa

Questions:

Congratulations to South Africa on concluding the first-ever Spectrum Auction; how was the process, and more importantly, what does this mean for ordinary South Africans?

What are the social benefits of this licensing intervention for the people of South Africa and maybe for the greater in supporting the implementation of the Sustainable Development goals?

Thank you, Programme Director, Your Excellencies, Members of the ICT Community, Honourable

Ladies and Gentlemen,
It is an honour to be a part of the WSIS high level track events and to showcase our regulatory work in bridging the digital gap in society. This year's theme resonates well with our vision for

building an inclusive digital society; and ensuring that all South Africans have access to a wide range of communication services at affordable prices.

From inception, our regulatory interventions have one thing in common: connecting the unconnected. The release of the International Mobile Telecommunications (IMT), through an auction, was a critical step in the right direction as it is one of the key interventions to stimulate economic recovery following COVID-19 challenges; and facilitate the rapid deployment of broadband infrastructure across the country. South Africans have been, for a long time, complaining about the high cost of data.

The successful auction addresses the cost of data and the general cost to communicate value chain, which has always been at the top of the agenda for ICASA. With the spectrum auctioned completed, we expect greater coverage, reliable connection, faster internet speed, quality of service and quality of experience for consumers, and lower cost of data services for both consumers and businesses.

This should be able to showcase South Africa's capability as an investment-friendly destination.

South Africa's digital divide has a substantial negative impact on the lives and livelihoods of its citizens, particularly those in poor and rural areas and those historically disadvantaged on account of a wide range of factors.

During the licensing process, it was imperative that the process followed would ensure the promotion of economic growth and create jobs, address socio-economic disparities that exist, and actively redress them to support the Sustainable Development Goals:

- GOAL 8: Decent Work and Economic Growth
- GOAL 9: Industry, Innovation, and Infrastructure
- GOAL 10: Reduced Inequality (for the people of South Africa)

With the spectrum assigned to licensed mobile operators, the following social obligations to the licenses include ensuring connectivity for 18 520 public schools, 1 764 government hospitals, 567 police stations, and 3 967 government clinics.

In conclusion, our goal is to ensure that every member of our society is included in the digital agenda. COVID -19 has shown us that communication services are no longer a nice to have but a necessity for the advancement of society. It is our commitment to continue regulating the communication services in the interest of the people of South Africa.

I thank you.

URUGUAY

Ms. Mercedes Aramendía
Presidenta de Directorio de URSEC
Unidad Reguladora de Servicios de Comunicaciones URSEC

Questions:

What is your country's state of the art related to the digital divide?

In what actions are your country working on to bridge the digital divide?

Thank you very much for the invitation. It's always a pleasure to have the opportunity to share this time, learning from the experience of other countries.

The digital divide is a gap between the "reality of the access to ICT" and our obligation to "universalize it". There are different focuses in which we need to work to make that universalization a reality because it's no longer enough to have access to a telephone now; we need, among other things, to consider: connectivity, devices, services, affordability, gender gap, and education in digital skills.

In December 2021, we had national-territorial coverage by 3G and LTE of more than 92%. We know that there are rural and suburban areas where we are not attending the demand in the way we should. To cover all the territory, we are coordinating and working to improve and find new ways to universalize the services as soon as possible. Also, we know that it is not enough to have coverage; we need the capacity to develop new technology as 5G at a national level. So we've done trials in 26 GHz, soon in 3,6GHz, and also we are working to make a spectrum auction this year.

In 2 years, the traffic had a remarkable increase, for example: fix broadband grew around 71% and mobile broadband more than 100%. We are glad that the net and the service providers could respond appropriately. Still, it's necessary to continue working because our society has new needs, and we have to work to attend them.

This year, we launched portability in mobile services that have a clear impact on the market; a simple analysis showed that the monthly price of the contract was reduced by around 10%. Also, the price paid per Gb by about 50%, and the performance increased by 50%. Also, that impacted the facilities' access to the devices.

In that sense, it's important to remark that in Uruguay, in 2007, more than 15 years ago, we launched a plan that allowed all the kids of our country to have access to a computer. Also, there is a specific plan to attend to people over 60 years old.

Last year, we published a gender report that allowed us to meet the reality of our market. As we previously supposed, we still have to work to minimize the gender gap.

Also, we are working to modernize our national education, to transform it considering new requests. In this sense, the National Plan of Science, technology, and Innovation is being evaluated, to learn from our own experience and feel the experience of other countries.

The pandemic of covid-19 accelerated the digital transformation, and new technologies, such as blockchain, Artificial intelligence, and Virtual Reality, among others, requesting our attention and to work on them.

We know that changes are needed and that we need to work and make decisions on time, so we need and have to work and listen to the entire ecosystem. That is key to ensuring the continuity of telecommunications services and accelerating projects to increase coverage, capacity, and affordability to facilitate access for all.

To make this process sustainable and to be able to bridge digital divide, we have to work on transversal actions, coordinating and collaborating constantly, and in continuous dialogue with the entire ecosystem to:

I. Develop digital skills. For example, we are promoting and raising awareness about working with data at the time to protect human rights such as privacy.

II. Encourage Innovation. For example, we are looking for new ways of doing things, innovating, and being creative to be more efficient and effective.

III. Work in a transparent way to build trust. For example, we are in dialogue with everyone, and we are putting a strong emphasis on transparency and clarity.

IV. Analyze our current regulations to update, modify, simplify or eliminate what is necessary.

The entire ecosystem must be aware of the importance of working together and developing trusting relationships to universalize access and bridge the digital divide.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

BOTSWANA

Ms. Maitseo Ratladi
Director, Broadband & Universal Access and Services
Botswana Communications Regulatory Authority

Questions:

What are the key policy measures you have implemented to bridge digital divides in Botswana?

How have digital applications improved the lives of rural communities?

All protocol observed

Let me thank ITU and WSIS team for affording Botswana the opportunity to deliver at this high-level policy session on one of the key WSIS action lines: Bridging the digital divide

- Botswana aims to take advantage of the opportunities presented by the Fourth Industrial Revolution (4IR) to move the country towards the Knowledge-Based Economy and this is echoed by His Excellency the President of the Republic of Botswana, Dr Masisi, at national and international platforms. Information and Communication Technology (ICT) infrastructure development and digital services are recognised as key pillars under Digital Transformation Strategy.

- The Digital Transformation Strategy developed and implemented in 2020 is an action plan that aims to deliver Botswana's digital aspirations as set out in the National ICT Policy (Maitlamo) and the National Broadband Strategy (NBS) . It also aims to deliver a smart and sustainable

society for the country so that no one is left behind. The NBS called for the establishment of the Universal Access and Service Fund (UASF) which is being used successfully to connect rural areas.

- Several programs have been implemented in the underserved and unserved areas under the UASF since 2014. These include provision of high-speed mobile broadband networks (4G) in 105 rural areas, provision of broadband internet and ICT devices to 77 government schools in remote areas. In 2020, the Government of Botswana conceived the Village Connectivity program through Smart Botswana connectivity Initiative which aims to connect over 500 villages across the country with high-speed internet (100 - 200 Mbps) in a phased approach by 2023/24.

- There is an ongoing work to connect 112 villages to 4G broadband networks through smart subsidy model, the project is expected to be completed by December 2023.

- The ultimate goal is to have all government facilities to high speed broadband internet and all rural areas should have 4G technology or better by 2025.

- With the availability of the mobile broadband networks in the rural areas, communities have been able to access Digital Financial Services/Apps (such as Mobile Money, Cellphone Banking, etc). The services have enabled people to transact and trade without incurring costs of travelling to urban centres. All the mobile network operators are offering mobile money services and the uptake is high.

- Most Banks have also implemented cellphone banking services and customers are able to transact without the need to visit the bank.

- Digital applications have also enabled Online Government Services such as payment of taxes, utility bills, company registrations and renewals, cattle registration etc, benefiting communities that are far from urban centres.

Thank you Chair

QATAR

Ms. Aljazay Saleh Rashid Al-Sulaiti
E-Government Programs & Standards Department Director, Qatar E-government Portal Department Acting Director
Ministry of Communications and Information Technology

Questions:

One of the challenges facing governments is the lack of citizen adoption of new ICT services. How does the state of Qatar address this challenge?

Missing Statement

Session Five: ICT Applications and Services

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/459

Moderated by High-level Track Facilitator:
Ms. Moira Patterson, Global Market Affairs & Community Engagement Director
IEEE Standards Association, United States of America

WSIS Action Line Facilitator:
Dr. Chaesub Lee, Director, Telecommunication Standardization Bureau,
International Telecommunication Union

Speakers:

1. **Iran -** H.E. Mr. Isa Zare Pour, Minister, Ministry of Communication and Information Technology
2. **Argentina -** H.E. Ms. Micaela Sanchez Malcolm, Secretary of State, Technological Innovation of the Public Sector of the Chief of Cabinet of Minister's Office

3. **Greece** - H.E. Dr. Athanasios Staveris-Polykalas, Secretary General of Telecommunications and Post, Ministry of Digital Governance
4. **Algeria -** Dr. Zineddine Belattar, President of AREGNET, Chairman of ARPCE, Council of Post and Electronic Communications Regulatory Authority, Arab Network for Telecommunications Regulatory Authorities
5. **Turkey -** Mr. Omer Abdullah Karagözoğlu, President, Information and Communication Technologies Authority (ICTA)
6. **United Arab Emirates -** Ms. Mubaraka Ibrahim, Acting Chief Information Officer of Information Sector, Director of Health Information Systems, Emirates Health Services
7. **Bahrain - Eng. Mariam Jumaan,** Chairperson, Telecommunication Regulatory Authority
8. **Azerbaijan** - Mr. Fariz Jafarov, Director, E-Gov Development Center
9. **Chinese Academy of Science,** Dr. LIU Chuang, Professor, Institute of Geography and Natural Resources
10. **Dr. Alcardo Alex Barakabitze,** Lecturer of ICTs, Sokoine University of Agriculture, Tanzania

Executive Summary by High-Level Track Facilitator

Introduction

Session number 5 of the 2022 WSIS Forum entitled **ICT Applications and Services.** This session focused on how usage and deployment of ICTs should seek to create benefits in all aspects of our daily life, including government services, healthcare provision, education. This should be done sustainably, and ICTs should be user-friendly, accessible to all, affordable, adapted to local needs in languages and cultures, and support sustainable development. To this effect, local authorities should play a major role in the provision of ICT services for the benefit of their populations.

Thank you to the panelists who shared their knowledge, experiences, and insights from different countries, stakeholder groups, and sectors.

Vision

The panelists' statements conveyed a vision where ICTs:

Where governments and the private sector are developing platforms and digital services with the end users and user experience in mind;

Where inclusion in the development of ICT development is critical to provide opportunities to all, including youth and women;

Where digital literacy of all populations, including different age groups, persons with disabilities, language communities, refugees will spread the benefits of ICTs and access to the associated services to all;

Which will enable societies to be resilient during crises and develop sustainably.

Emerging trends and Opportunities

Panelists highlighted a variety of trends and priorities:

- The Covid-19 pandemic accelerated the digital transformation, which was a key source of resilience in the pandemic;
- Where digital infrastructures were in place already, they provided continuity of services, and build out of fiber optic, satellite, made progress;
- Government as a platform providing public services online, having integrated, future-looking, and user-focused approaches;
- It amplified the need for increased digital literacy among different populations, such as aging populations, as digital services were necessary, not a luxury anymore;
- A focus on the needs of end users - from design and usability perspective as well as from data perspective - is critical in effectively providing services;
- While there is a need to preserve confidentiality where needed, open knowledge and open data provide opportunities for innovations for the greater good;
- Many ICTs were mentioned as being key enablers of the vision, including AI tools, big data analytics, digital identities, and applications in electronic medical records, telemedicine, public services, etc
- National strategies and policies around ICTs are key drivers in enabling all this.

Key challenges

Some challenges that were discussed included:

Increasing cybercrime poses significant risks to users, and governments are looking to address this.

Gender gap, age gaps, and other underserved communities face access challenges.

While programs to "connect the unconnected" are showing progress, lack of connectivity is still a challenge.

Links to WSIS Action Lines and Sustainable Development Goals

Some specific SDGs were mentioned in the sessions, including Goal 1, Goal 2 and Goal 14, but it should be noted that ICT Applications and Services serve as a foundation for all SDGs and WSIS Action Lines, as they are a key enabler across the different stakeholders and sectors.

Case Examples

Speakers shared examples, including:

- ICTs are the fastest growing segment in startups, and the Government as Platform (rather than as sole service provider) approach is taken in Iran;
- The spread of connectivity through building out fiber optic networks as well as satellites and the focus on filling the skills and capacity gaps in Argentina;
- With Covid-19, the Strategy for eGovernment, where reforms for digital transition of the country were established digital governance in Greece;
- Encouragement of storage of data in the cloud and is very open to sharing information with the general public to create for the well-being of society in Algeria;
- An increase in internet traffic by 50% and the capacity by the providers to support that, as well as services such as e-Contract Termination, in Turkey;
- How digital health technologies, including electronic medical records, AI-powered solutions, digital clinics, enabled efficient response to Covid-19 in UAE;
- How a focus on gender balance in science and technology, including through mentoring programs, accelerators, etc, is increasing female participation in Bahrain;
- How bringing together 12 ministries in an eGov Center as well as a focus on the user experience and has enabled "easy" (asan) access to public services online in Azerbaijan, and they are envisioning providing services in space;
- How use and publication of open knowledge can serve the geographical science, technology and intellectual property into geographical products through ICT discussed by the presenter from China; And the role of international institutions and multi stakeholder processes in frameworks for ICT integration discussed by the presenter from Tanzania.

Road ahead

There was a focus on policy and regulatory frameworks and strategies as a key enabler for spreading the connectivity infrastructure, promoting inclusive digital literacy, and ensuring that digital services are developed by gender and age diverse teams. Furthermore, the multi stakeholder engagement is critical and will continue in this venue. These areas are seen as important contributors for reaching the goals of a resilient and sustainable society supported through ICTs.

ISLAMIC REPUBLIC OF IRAN

H.E. Mr. Isa Zare Pour
Minister
Ministry of Communication and Information Technology

Questions:

What is your plan to implement a smarter government?

Although ICTs are essential for socio-economic development, some concerns on violating the rights of users and local entrepreneurs and their privacy have been expressed. Can you share your views on these concerns with us?

Digital transformation of the government is among our top priorities, as it is an essential prerequisite to smart government for providing transparent and efficient governmental services to our nation. It is also a pillar of the digital economy.

In the past decade, we witnessed a surge of startups in Iran, and the most prominent sector for startups in Iran was the ICT sector. Thanks to the efforts of Iranian youth and opportunities in the Iran's innovation ecosystem, we have, many advanced ICT-based platforms that are comparable to similar world-class platforms.

Moreover, the digital consumer segment has grown more than we could ever imagine. Millions of people are using online retailing, ride-hailing services, app stores, fintech, insurtech, eHealth, map services, and entertainment platforms, to name a few.

The digital economy in Iran in 2021 was 6.41% of the total economy. Our plan is to increase this to 15% within 3 years. In doing so, we increased the government's investments and expenditure in ICT by 300%, and will continue to increase our investment in ICT infrastructure and digital services in the next three years.

In the infrastructure, our focus is on the expansion of FTTX and 4G/5G Mobile networks. For digital services, we enhanced our e-learning and e-health platforms during the Covid-19 pandemic. As stated earlier, we aim to provide our nation with transparent, user-friendly, and smart interfaces to many governmental services. Specifically, the National Smart Government Services Single Window facilitates G2C services, with particular attention to the needs of elderly and people with disabilities.

ICTs are vital for sustainable development, which can only be achieved cooperatively. We believe that it is imperative to promote the UN's role in the process of cyber governance and policymaking. This could be achieved through equitable participation of all governments and also through consultation with non-governmental stakeholders. Unilateral Coercive Measures (also known as UCMs) in cyberspace have a destructive impact on investments, technology transfer, and the further development of target countries. UCMs also violate the rights of users. Due to UCMs, some widely used foreign platforms have been reluctant to be responsive to the Iranian regulatory authorities.

Although the development of different platforms and their extensive usage has strengthened the economy and facilitated social interactions, it has also caused problems such as a surge in cybercrimes. We believe in the right of countries to take into account their cultural exigencies in the use of Internet and in developing their own legislation and regulations on such issues with a view to protecting the rights of their citizens in the cyberspace.

ARGENTINA

H.E. Ms. Micaela Sanchez Malcolm
Secretary of State
Technological Innovation of the Public Sector of the Chief of Cabinet of Minister's Office, Argentina

---

Questions:

From a public policy point of view, how can we move forward the creation of social and individual capacities to reduce the impact of the digital divides?

Which kind of policy actions promote the reduction of the digital gender gap in ICTs and which are Argentina's priorities on the matter?

Good afternoon to everyone.
It is a pleasure to take part in this panel at the World Summit on the Information Society Forum and to share Argentina's perspective on this relevant matter. From the national government led by President Alberto Fernández, we believe that, within the framework of the information society, access to connectivity is a fundamental right.

Additionally, connectivity is essential to guarantee the wellbeing and full exercise of other rights for all citizens. That is why, in Argentina, we carry out public policies aimed to guarantee access to connectivity throughout the whole national territory. Some of these policies include: the expansion and update of the Federal Optic Fiber Network through ARSAT, our public satellite solution company. This Network is the biggest in Latin America with more than 34.000 (thirty-four thousand) kilometers of optical fiber deployed. Additionally, we are one of the 9 countries in the world with the technological capacity of producing geostationary

telecommunication satellites. We are in the process of developing our third satellite that will provide high-quality satellite connection to more than 200 (two hundred) thousand rural households, and we have announced the construction of a fourth one. Moreover, the national government has implemented the plan "Conectar Igualdad", a digital inclusion program that combines the distribution of educational and technological material and the deployment of connectivity initiatives. This program provides computers on a one-on-one basis to all high education students in order to guarantee access to digital technologies for young people in Argentina.

Besides focusing on access, our policies also recognise the urgent need to invest in reducing skills and capacities gaps among our population, while considering other socioeconomic, gender and geographical divides. This shows the dynamic and multidimensional nature of these issues, which therefore demand innovative actions and strategies from the government. Because of this from the Secretariat of Technological Innovation of the Public Sector, we design and implement initiatives oriented to the digitization processes of the state on all its levels. This allows for the consolidation of a more agile, open, transparent government aligned to the needs of its citizenship. Additionally, we work to reduce skills and capacity gaps. Some of our actions include:

- First, "Punto Digital" Program, with more than 600 spaces throughout the country with internet connection and technological devices to provide access, promote digital skills and contribute to job training;
- Second, the Virtual Learning Platform, through which we offer training and courses in digital skills, citizen rights and labour skills;
- Finally, our Center in Genders in Technology, aimed at generating inclusion policies towards reducing the gender gap in the ICT sector through public-private collaboration with some of the most important technological firms worldwide. These policies aimed at promoting technologies are part of a bigger and broader commitment of the national government: to guarantee decent living conditions and to expand the rights of every citizen.

Thank you very much.

WSIS FORUM 2022
Starting on 15 March
Final week 30 May - 3 June

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

GREECE

H.E. Dr. Athanasios Staveris-Polykalas
Secretary General of Telecommunications and Post
Ministry of Digital Governance

Questions:

What are main policies that the Greek gov't endorsed, in order to promote the use of ICT Applications and Services?

Which major policy in Greece proved to be a benefit to the Greek citizens and their well-being?

Thank you Chair for giving me the floor

Your excellencies, honorable participants, ladies and gentlemen, … good evening

It is my honor to participate in this panel today, the High-Level Policy Session for ICT applications and Services of the WSIS Forum, which has proven to be an efficient mechanism for coordination of activities, information exchange, creation of knowledge and sharing of best practices. From our experience, the WSIS Forum is eventually the ultimate place to gather, because it is a platform, a global community of experts from Academia and research institutes, entrepreneurs, regulators and policy makers that are given the chance to share best practices in all field of ICT development and digital transformation, so as to achieve the WSIS Action Lines in collaboration with the UN Agencies. The work of ITU is essential to the global community and Greece, as a founding member of ITU and an elected member of the Council the last 3 consecutive periods, supports these initiatives, not only at national level, but also at international level.

In this respect, I am very pleased to be a part of this dialogue by sharing with you our experiences in the field of ICT applications and Services, that has brought many opportunities in Greece especially to the areas of innovation, governance, education and economic growth.

To answer your first question,

Greece is a country that has transformed rapidly the last several years. In December 2020, the Greek government signed the Berlin Declaration on Digital Society and Value-Based Digital Government, thus re-affirming its commitment – together with other EU Member States – to foster digital transformation in order to allow citizens and businesses to harness the benefits and opportunities offered by modern digital technologies.

Greece envisages to become very soon a Smart Nation, due to the major digital policies that have been endorsed. Primarily, the digital transformation of Greece is reflected on the Digital Transformation Bible (DTB), which is a record of the interventions planned in the revised National Digital Strategy for 2020-2025. Its main focuses are: the technological infrastructure of the State, the education and training of the population for the acquisition of digital skills as well as in the way Greece utilises digital technology in all sectors of the economy and public administration. It outlines the basic principles, framework, governance model and guiding principles for the digital transformation of the country, which are elaborated in six strategic axes (connectivity, digital skills, digital government, digital business, digital innovation, integration of technology in every sector of the economy) and in 17 areas of economy as horizontal and vertical interventions. In addition, it describes over 450 specific projects, which are expected to carry out the national digital strategy. This strategy brings forth seven objectives, these being as follows:

- safe, fast, and reliable access to the internet for all;
- a digital State offering better digital services to all citizens in all life aspects;
- development of digital skills for all citizens;
- facilitation of the digital transformation of enterprises;
- support and strengthening of digital innovation;
- making productive use of public administration data; and
- incorporation of digital technologies in all economic sectors.

Additionally, in 2018 the Greek National Coalition for Digital Skills and Jobs was established, which is a synergy between various entities, public or otherwise, seeking to promote digital skills in the Greek society. The objectives of this National Coalition are to facilitate cooperation between all parties, to introduce actions with the aim of enhancing digital skills, and to address the digital gap issue in every sector of the Greek economy and society. To achieve the above objectives and in accordance with the European Commission's Digital Skills and Jobs Coalition, the following four (4) target groups have been established:

- Education: enrichment and digital transformation of the learning and teaching process for pupils and students. Integral part of this effort is the provision of incentives for the continuing training of teachers;
- Training: development of digital skills of employees, unemployed and businessmen to promote digital economy;
- Information and communications technology professionals: promotion of high-level digital skills for ICT professionals in all industry sectors; and
- Citizens: the objective is to enhance digital skills to enable all citizens to be active in our digital society.

During the COVID-19 pandemic, the major policy in Greece that proved to be a benefit to the Greek citizens, was our Strategy for eGovernment. The pandemic, was a period that new reforms for the digital transition of the country were established, removing administrative barriers, creating an investment-friendly environment and enhancing digital governance.

The main vision of the Strategy for eGovernment to promote the use of ICTs as a catalyst for the development of modern governance tools. The strategy has the following three main strategic objectives:

- Modernisation of the State and public administration;
- Reconnection of citizens with the State and public administration; and
- Coordination of horizontal ICT policy in public administration.

Additionally, Greece has been participating in the international collaborative initiative known as Open Government Partnership since 2012. In this context, the Fourth National Action Plan on Open Government from June 2019 to August 2021 was developed in cooperation with civil society organisations. The Action Plan promotes the further implementation of the national policy consisting of circulars towards all public service institutions, open access and re-use of

public documents, and information and data. Data management is a priority for the Greek public administration. The commitments undertaken in the Action Plan are structured in three main directions:

- Public participation;
- Open public data; and
- Integrity and accountability.

The significance of these new reforms, but also for reforms concerning emerging technologies (like our National Strategy for AI and our strategies for the 5G deployment and Space Applications), was initially considered as pointless, and sometimes even as an exaggeration, by the majority of the Greek population. However, as the need for digital services was observed to have an exponential increase during the COVID-19 pandemic (with data traffic volumes exploding by nearly 70% in Greece), the Greek citizens were taught to harness the benefits and opportunities offered by modern digital technologies that, in a very short time, improved their well-being.

Concluding my intervention today, I would like to thank you all for your attention and also to thank our honorable speakers and the organizing team of ITU for their excellent and patient work in organizing this WSIS forum.

Thank you.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

ALGERIA

Dr. Zineddine Belattar
President of AREGNET, Chairman of ARPCE
Council of Post and Electronic Communications Regulatory Authority, Arab Network for Telecommunications Regulatory Authorities

---

Questions:

How can the ICT regulator serve the well-being of society in a post-covid 19 context?

Tout d'abord je tiens à remercier l'UIT de nous avoir donné cette occasion afin d'exposer notre modeste contribution au sommet mondial de la société de l'information 2022.

Cette allocution intervient au lendemain de la célébration de la journée mondiale des télécommunications et de la société de l'information sous un thème très intéressant : « Les technologies numériques au service des personnes âgées et d'un vieillissement en bonne santé », qui coïncide avec la journée du 17 mai chaque année, nous nous retrouvons aujourd'hui à Genève pour discuter encore une fois du rôle des TIC pour le bien-être de la société, et ce à la veille d'une autre date importante pour le développement des TIC dans le monde, à savoir ; la célébration du 19ème anniversaire de la déclaration de principes de Genève, prise en décembre 2003 sous le slogan « Construire la société de l'information : un défi mondial dans le nouveau millénaire ».

Certes, aujourd'hui l'industrie des télécommunications représente des parts importantes des revenus mondiaux, néanmoins cette industrie ne peut être considérée comme une finalité en elle-même, c'est l'usage de ces technologies qui nous intéresse de plus en plus.

En effet, nos concitoyens devraient sentir le développement des TIC dans leur vie de tous les jours à travers leurs opérations quotidiennes, et les applications n'en sont que le moyen.
Après la tragique expérience qu'a vécu le monde pendant plus de deux (2) ans à travers cette pandémie Covid-19, nous considérant que les infrastructures TIC ont pu lever les défis et surmonter les difficultés liées aux soins, à l'enseignement, au travail, aux transactions financières, etc. ce qui dénote encore une fois un potentiel d'appropriation des TIC appréciable dont le rôle pour le soutien des objectifs du développement durable n'est pas à sous-estimer.

En effet, l'infrastructure des télécommunications, le parc des abonnés aux services de communications électroniques (voix et DATA), l'accès aux services et l'usage de l'internet sont, entre autres, des indicateurs d'aide à la prise de décision dans l'utilisation des TIC pour le bien être du citoyen, lesquels sont régulièrement tenus par les régulateurs de TIC.
L'Algérie a fait des pas de géants dans le déploiement de l'infrastructure de télécommunications à travers son vaste territoire, ce qui constitue un atout pour la société de l'information et ce qui renforce davantage de la résilience de ses réseaux. Les dernières années ont connu un renforcement des capacités de transmission en fibre optique, la migration vers des technologie nouvelles, l'augmentation de la bande passante internationale, l'assignation de nouvelles fréquences et l'optimisation du spectre radioélectrique, et ce pour faire face à la consommation de la DATA qui s'est vu multipliée dans un contexte de crise Covid-19.

En effet, le marché de communications électroniques en Algérie a connu en 2021 des niveaux de pénétration dans la téléphonie fixe et mobile très appréciables[1]. Plus de trente (30) millions d'algériens utilisaient internet à la fin 2021, essentiellement des jeunes ce qui constitue un levier pour l'émergence de l'économie de la connaissance et le développement des Start up.

La consommation de la bande passante en 2021, a connu quant à elle des niveaux de consommation très importants par rapport aux exercices précédents, laquelle consommation trouve son explication dans le changement des modèles de consommation dû à la pandémie Covid-19 et les politiques préventives édictées par les gouvernements tant au niveau national qu'international. Dans ce cadre, des techniques d'optimisation et de sécurisation des liaisons

[1] 69,41 % pour la téléphonie fixe avec un parc d'abonné qui a affranchi la barre de 5 millions pour la première fois avec un total abonné de 5,1 Millions, soit une évolution de 6,54% par rapport à l'année 2020.
Pour la téléphonie mobile, le taux de pénétration a atteint 106,71 %, avec un parc d'abonnés actifs de 47 millions, soit une évolution positive de 3,21 %.

ont été adoptés par les opérateurs de communications électronique en vue de garantir la pérennité et la résilience de leurs réseaux.

Dans un pays très étendu, notre souci aujourd'hui est de généraliser la connectivité pour de nouveaux usages notamment dans les milieux peu denses à travers le lancement des programmes du service universel des communications électroniques, l'encouragement de l'itinérance nationale et le partage d'infrastructure entre opérateurs dans le cadre d'un partenariat pour la connectivité.
Notre session d'aujourd'hui porte sur les applications et les services TIC, ceci nous permet d'aborder le projet d'une application de mesure de la qualité de services internet offerts par les opérateurs de la téléphonie mobile au profit des utilisateurs finaux baptisée « jawdati » et qui permettra par ricochet au régulateur d'apprécier l'expérience client.

L'application en question est téléchargeable sur internet, elle a été conçue dans le cadre d'un projet interne par les développeurs de l'Autorité de régulation, et qui a été inscrit, dans un souci de partage de connaissances, dans les ateliers du réseau des régulateurs arables des télécommunications et de technologie de l'information, présidé actuellement par l'Algérie représentée par l'Autorité de régulation de la poste et des communications électroniques.

Cette démarche de l'Autorité de régulation vise l'orientation vers de nouvelles méthodes de régulation par la DATA (Crowdsourcing) en se basant sur l'information et l'expérience utilisateur afin de mieux orienter les choix de l'abonné et la prise de décision par le régulateur.

Enfin, l'Autorité de régulation encourage vivement le stockage des données en cloud et elle est très ouverte au partage de l'information au grand public afin d'identifier les usages les plus appropriés qui tendent à créer des avantages dans tous les aspects de la vie quotidienne pour le bien-être de la société.

Nous arrivons à la fin de notre allocution, je vous remercie pour votre attention.

TURKEY

Mr. Omer Abdullah Karagözoğlu,
President
Information and Communication Technologies Authority (ICTA)

Questions:

How do you assess the overall progress of information and communication technologies in your country and their impacts on the society?

We know that it can take considerable time before the use of digital technologies and applications become mainstream and the speed of adoption of digital technologies is influenced by public policies. Especially during the pandemic, the critical role of public authorities became more significant for the provision of ICT services for the benefit of their people. Could you share an example from Turkey that targets the adoption of ICT applications and services?

I would like to underline that ICT applications and services have significant potential in terms of development in many vertical sectors. In Turkey, we have a very dynamic and competitive ICT sector. We have 88.2 million broadband internet subscribers. Mobile subscribers reached to 86.2 million with 101.9 % penetration rate. Investments continued without interruption even in the pandemic and increased by 15 % in the year 2021 compared to previous year. Our goal is always to bring new technologies and services to our people.

We have now 5G in our agenda and we are working with all the stakeholders for timely planning and implementation of 5G services in Turkey. Satellite services are also one of our

main pillars for the provision of ICT services. Turkey with Turksat satellites become one of the countries that can produce its satellite locally. Fiber deployments also continue as it is crucial for 5G services. Apart from those, as we would like to bring ICT services to every part of the country, we have accelerated the universal service projects this year. In this context, a new universal service project has been launched to bring ICT services to approximately 1000 rural areas.

Our ultimate goal is to "connect the unconnected" as we all say. I believe that public policies and regulations are among the most important facilitators for every one's access to ICT services in the country. We deem that this is a prerequisite for sustainable development in every field.

WSIS Forum provides a very important platform for achieving this aim universally.

As we all know, the pandemic underlined the importance of ICT services for every part of our lives. Our main considerations during that period were to keep the physical contact at a minimum level and provide all services without interruption. Digitalization become the first agenda item for every sector and this accelerated the deployment of ICT services. For Turkey during those times, although internet traffic increased approximately 50 percent, our operators could handle this increase and accommodated the increasing needs of consumers. To increase remote access to the services, we have taken various measures for keeping physical contact to minimum.

In this respect, we have issued regulations regarding the verification of identity through online means in order for people to apply to different ICT services from their homes without going to the offices of the service providers. Subscription to various ICT services, number porting, internet service provider change, request for electronic signature certificate and registered e-mail and also SIM change application are some examples of services put into online environment. Apart from convenience and speed for the user, it is very environment friendly since they are all paperless applications.

The "e-contract termination" is an example to one of these services, where consumers can submit their contract termination requests to the relevant operators through internet in a safe and one-stop-shop process electronically without going to the operator offices and without

paperwork. With this service, subscribers can apply for termination through the e-Government Portal by just logging on to the Portal through various secure means of authentication like eID card together with its chip&PIN feature, e-signature or banking account session. After application and online check, the rest of the process is handled by the operator and when the contract is terminated, operator informs the user accordingly.

It is important to say that this service can be used by all citizens, including elderly people, people with disabilities, immigrants, refugees, expats etc. Tourists who have foreign ID in Turkey can also use this service. By terminating the service, consumers may seek for a better competitor and subscribe to a new operator. This facilitates operator switching, promotes competition and protects consumers.

I would like to proudly note that “e-contract termination” service was nominated for WSIS Prizes this year at the “E-Government” category and selected as one of the Champions among 966 projects competing.

UNITED ARAB EMIRATES

Ms. Mubaraka Ibrahim
Acting Chief Information Officer of Information Sector
Director of Health Information Systems, Emirates Health Services

---

Questions:

How did UAE/EHS use technology during COVID-19 to manage the spread of the pandemic?

How technology has helped in better clinical outcomes and patient experience for EHS?

Missing Statement

BAHRAIN

Eng. Mariam Jumaan
Chairperson
Telecommunication Regulatory Authority

Questions:

Taking into account the changing landscape since the beginning of your career, and considering how the journey has been for yourself as a woma,n do you have any advice for aspiring girls in the telecoms sector?

Bahrain, is pushing gender equality across all aspects of society and the economy, having said that, do you see enough being done in the telecoms and ICT sector and are there any pointers you would like to see or share with our audience on gender mainstreaming in STEM related disciplines

Missing Statement

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

AZERBAIJAN

Mr. Fariz Jafarov
Director
E-Gov Development Center

Questions:

How do you envision the future of public services in new, digital age?

What are some of the biggest challenges governments face when delivering public services?

Missing Statement

CHINESE ACADEMY OF SCIENCE

Dr. LIU Chuang
Professor
Institute of Geography and Natural Resources

Questions:

How can innovative ICT technology be used in Geographical Indications for SDGs?
How can linking ICT with Opening Science support for cross-boundary cooperation?

In the implementation of the UN SDGs, Goal 1, Goal 2 and Goal 14 have become crucial parts for the environment protection and socio-economic development. They have been widely implemented in developed regions and urban areas. However, they are very prominent due to the infrastructure, natural disasters, less development, lost of education in mountain areas, small islands and critical zones in ecosystem, the contradiction between environmental protection and socio-economic development is a big challenges and it is still difficult to achieve the SDGs in these areas.

From the perspective of geographers, we believe that the performance of world geography at local and regional scales is diverse, and this diversity is particularly prominent in China. Geo-diversity is so full colors in the world, from tropic to cold zones, from humid to arid regions, from continent to ocean, from plains to mountains. Geographical diversity also caused the bio-diversity and product diversity, which are the original ecological characteristics that we often talk

about as "geographical genes". Geographical diversity also shows the diversity of local traditional culture and people's living habits and styles.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement issued in 1990. It indicated at the Article 22.1 about the geographical indications as "...indications which identify a good as originating in the territory, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.

In 2005, China released “the provisions on the protection of geographical indication” and held a series of international geographical indication Expo. Many countries in Europe, Asia, America, Australia, and Africa have successively issued regulations to protect the geographical indication. Not only, were several agreements about the GI between or among the countries issued. For example, the China-EU agreement on geographical indication was implemented since 2021. In the form of intellectual property, GI has become another part of the product value, that means the geographical indication can obtain market recognition in addition to variety and quality, that is the Reputable Brands.

With a GI brand, can we get the favor of the market and make the local development? Not really in most cases. Geographical products from these regions have a common feature that they are small or not very much. Most of them are distributed in mountainous areas, small island areas, and small ecosystem regions. Many of these products are produced by family farms or small enterprises. Due to geographical restrictions, the total output from such GIs is limited, but they have very special geo-local characteristics. For example, Yanchi Tan Sheep from arid grassland ecosystem, Baoshan coffee, from Mountains evoronment, burdock from historical Yellow River flood area, rice from lanshijia village, in the slope of Changbai Mountain, black rice from Yang County, the Crested Ibis residents, and so on. Recently, the FAO's "one country, one priority product" (OCOP) program also raised this issue. For example, Quinoa from Bhutan in the Himalayas, potatoes from Nepal, ginger from Fiji and breadfruit from Samoa, both are Pacific island countries.

To enhance accessing the local GI information as broad as possible, ICT is an indispensable key. Since January 2021, the Chinese Academy of Sciences coordinated more than 20 organizations to initial a Geographical Indications Environment and Sustainability 2021-2030 Program (GIES), which aims to integrate geographical science, technology and intellectual property into geographical products through ICT and widely disseminate them. At present, 14 cases have been carried out. Our approach is to use the platform services of big data; the Internet of things and the world data center to provide services for the intellectual property, regional ecological environment and local sustainable development through open scientific.

For example, we use the world data center and scientific data publishing to open the case data, open knowledge by publishing papers through the academic journals, and monitor the ecological environment by establishing a local ecological environment monitoring system and combining it with remote sensing satellite images. By the way of Internet of things, QR system, consumers can directly trace the source of products and learn about world geography and foreign cultures using cell phones. As a member of the world data system of the International Council for science, the Global Change Research Data Publishing and Repository (GCdataPR) is one of more than 80 World Data Centers of International Council for Sconces. It plays a role in archiving and permanent preservation, quality control, and opens services for research, education and social sustainable development in the world. It is consisted of two data journals including the Digital Journal of Global Change Data Repository and the Journal of Global Change Data and Discovery.

In the process of practice, we have adopted a multi-stakeholder cooperation methodology in the way of industry, university, research, government, scientific communities, village people and media", and adopted the method of "variety, quality, brand, behavior, and culture" so as to go hand in hand in terms of products, environment, social development, local culture, and people life has become a powerful starting point for Rural Revitalization.

The GIES program is a full open, multi-stakeholder and efficient action plan with significant local advantages. In this process, the method of integrating the intellectual property of geographical indications and ICT to escort the local sustainable development is an openly available, sharable and reproducible method. It can be predicted that in the next decade, there will be more and more cases, which will help the mountainous areas, small islands, ecologically critical zones and all geographical indication diversity areas, they will make special contributions to reach to 2030 SDGs.

Sokoine University of Agriculture, Tanzania

Dr. Alcardo Alex Barakabitze
Lecturer of ICTs

Questions:

What is the common framework of implementing/integrating ICT Policies in the world?
What is the role of the World Bank in ICT integration?

Missing Statement

Session Six: Climate Change/Bridging Digital Divides

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/468

Moderated by High-level Track Facilitator:
Ms. Melika Righi, Associate, Dama Italy

WSIS Action Line Facilitator:
Mr. Dejan Jakovljevic, Director and Chief Information Officer, Digitalisation, and Informatics Division, Food and Agriculture Organization

Speakers:

1. **South Sudan -** H.E. Mr. Jacok Korok Maiju, Deputy Minister, Ministry of Information Communications Technology and Postal Services
2. **Greece -** Prof. Konstantinos Masselos, President, Hellenic Telecommunications and Post Commission
3. **Saint Vincent and the Grenadines -** Mr. Apollo Knights, Director, National Telecommunications Regulatory Commission
4. **Uganda** - Eng. Irene Kaggwa Sewankambo, Ag. Executive Director and Director Engineering and and Communications Infrastructure
5. **Germany -** Mr. Bjorn Richter, Head of Digital Development Programme Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

6. **Columbia -**Ms. Lina María Duque del Vecchio, Communications Commissioner Comisión de Regulación de Comunicaciones
7. **IEEE-** Dr. Maike Luiken, SMIEEE, IEEE-HKN, FEIC, 2022 IEEE Past Vice President - Member & Geographic Activities IEEE, Canada
8. **Envision Associates** - Mr. Tomas Lamanauskas, Managing Partner, Envision Associates
9. **UNDRR** - Mr. Ricardo Mena, Director, UN Office for Disaster Risk Reduction
10. **Internet Society Foundation -** Ms. Sarah Armstrong, Executive Director
11. **Intel Corporation**, Ms. Sarah Kemp, Vice President, and General Manager of International Government Affairs

Executive Summary by High-Level Track Facilitator

Bridging digital divide is the framework to all the 17 SDG and, off course, for goal number 13, climate action.

some points in common emerged strongly from our panel:

- We need to bring connectivity, energy and affordable device to people;
- We need to green the internet and to cut emissions of
- We have the opportunity to rethink about our ICT system and design in a circular economy way.

Climate change is a global challenge, and the development of a low carbon economy becomes a top priority worldwide. To this end 189 countries have joined the Paris Agreement on climate change aiming at limiting global warming and the world's major economies have all made commitments to carbon neutrality.

The last five years there has been an increasing awareness of the potential environmental effects of ICT. The need for reducing ICT CO2 footprint becomes a necessity and, in this direction, the International Telecommunications Union (ITU) has made the reduction of ICT carbon emissions by more than 45% a target for 2030.

Today, approximately 333.2 billion emails are sent per day and the emails we send every day, the movies we stream, and almost everything we do online significantly impacts the environment by increasing the global carbon footprint. Also, a record 53.6 million metric tonnes1 of e-waste was generated around the world in 2019, and this number is on the rise.

And as we know, the methods used around the world to extract the valuable metals from this discarded e-waste pose significant health and environment risks.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

The vision all over the World is clear, we need to bridge digital divide and bring digital services to everyone. To achieve this important objective, we need to bring good, fast connections, we need do bring energy and affordable device for people. To fulfill this goal its important the cooperation of governments, regulatory agency and authority and civil society.

Some countries are facing the roll out from copper networks to FTTH/FTTP networks, that offers many advantages: higher speeds, lower latencies, smaller cost per speed unit, increased reliability and scalability while being the most technological secure and in-the-field validated broadband technology. On top of these advantages and even more important fiber networks is the most energy efficient network technology because of the reduced role played by active equipment compared with legacy technologies for which active equipment is extensively used to increase network performance.
Other countries are frog jumping into 5G technologies, skipping physical networks.

Both are dealing with the same problems, remote areas with low people density, areas that are not convenient for markets operator to reach.
Affordable connections in remote areas really can help with SDG 3, good health and wellbeing, SDG 4, quality education but also with the number 5, gender equality, and number 10 and 11, reduce inequality and sustainable communities.

New priorities seem to be to build ICT community with a human centered approach, that can really help to create a more sustainable society and to keep connectivity emissions as low as possible.

During the panel two trends emerged clearly, **making digitalization climate-friendly** and making the best possible use of the potential of **digital technologies to achieve climate goals**.
This means to think about green data centers, to high-speed networks with low emissions and to start from scratch to design a new business model that is circular and sustainable to act against climate change.
Now that we can design new networks, for connectivity and energy, to design new devices, affordable for everyone we must think also about the end of life, and design

everything according to circular economy principles. ICT technologies are a key enabler for climate change mitigation and to find best solutions for act against it. These technologies can help install predictive or early warning systems for environmental disasters, caused by climate changes, such as hurricanes, landslides, floods, and thus prevent loss of life.

SOUTH SUDAN

H.E. Mr. Jacok Korok Maiju
Deputy Minister
Ministry of Information Communications Technology and Postal Services

---

Questions:

What are your plans for building telecommunications infrastructure in the country and how can the private sector be involved in it?

Can you elaborate more on your call for South Sudan to be used as a testbed for latest technogies such as HAPS, HIBS, etc?

Missing Statement

GREECE

Prof. Konstantinos Masselos
President
Hellenic Telecommunications and Post Commission

Questions:

What is the impact of ICT sector on the environment?

Which is the most critical ICT technology for achieving our environment objectives and aligning the objectives of digital transformation and sustainability agendas?

Climate change is a global challenge and the development of a low carbon economy becomes a top priority worldwide. To this end 189 countries have joined the Paris Agreement on climate change aiming at limiting global warming and the world's major economies have all made commitments to carbon neutrality. The last five years there has been an increasing awareness of the potential environmental effects of ICT.

The need for reducing ICT CO2 footprint becomes a necessity and in this direction the International Telecommunications Union (ITU) has made the reduction of ICT carbon emissions by more than 45% a target for 2030. Communication networks contribute significantly to the ICT's sector (excluding TV) carbon footprint and for 2020 this contribution is estimated to be in the order of 20%-35%. The reduction of the broadband networks energy dissipation and the relevant CO2 emissions becomes another key objective. Fiber broadband access networks

(FTTH/FTTP) offer several advantages: higher speeds, lower latencies, smaller cost per speed unit, increased reliability and scalability while being the most technological secure and in-the-field validated broadband technology.

On top of these advantages and even more important fiber networks is the most energy efficient network technology because of the reduced role played by active equipment compared with legacy technologies for which active equipment is extensively used to increase network performance. Recent research in Germany has proven that the average annual energy consumption per user of VDSL2 copper access technology network is 16 kWh while the annual emissions for one million users are 6400 tons of carbon dioxide. For GPON and XG-PON fiber optic technologies, the corresponding numbers, according to the study, appear reduced to only 1/16. Policy and regulatory action is still required to further speed up the deployment of fiber networks (FTTH/FTTP) and achieve our ambitious objectives.

Our goal should be to formulate policies that will encourage investment for the development of fiber access networks (FTTH/FTTP),but will also support the demand side so that this infrastructure is accessible and long-term economically viable. What does this mean, and which should be our priorities?

1**. Copper switch off**: We need simple and transparent procedures for the transition to NGA networks and the switch-off of copper networks.

2. **Fiber optic development in buildings and not in the streets**: It is necessary in the next period to prioritize the termination of fiber optics in homes, small businesses and apartment buildings, balancing the rapid development of fiber cables we see on the streets (homes passed) with the creation of real / final connections.

3. **Low prices / affordable services**: Modern network infrastructure is not in itself an ultimate goal, but a means of serving the citizens, the business development, the social and economic progress of each country.

As such, in addition to being available, they must also be accessible. No more expensive than the "copper" they replace. Highlighting the role of fiber networks in meeting the goals of both digital and green transitions is a key objective. Fiber networks are a catalyst for sustainable energy planning and can significantly help reducing the carbon footprint of our broadband access. Fiber optics are the most technologically secure and energy efficient solution for the development of new generation networks and are the 'key' for aligning the objectives of Digital Transformation with the Green Sustainability Agenda.

SAINT VINCENT AND THE GRENADINES

Mr. Apollo Knights
Director
National Telecommunications Regulatory Commission

Questions:

What are the top two obstacles you see preventing a reduction in the digital divide in your home country of Saint Vincent and the Grenadines?

How do you see the Digital divide impacting the mission of your government along with others in the OECS sub region in driving digital transformation of their economies?

Missing Statement

UGANDA

Eng. Irene Kaggwa Sewankambo
Ag. Executive Director and Director Engineering and and Communications Infrastructure
Uganda Communications Commission

Questions:

How effective were these minimising the socio-economic disadvantages during the COVID19 pandemic?

What do you think needs to be done to realise the quest of leaving no one behind?

During the lockdown, only essential personnel were allowed to move. To facilitate the continuity of the various social and economic activities, remote working became the norm; classes were moved online; and traders could only sell their merchandise electronically. However, to engage in all these socio-economic actives, having connectivity and an access device were and remain key.

Due to the relatively high cost of devices and services, though, younger people and those with higher incomes are more likely to be digitally connected. This, as we strive to limit the digital divide in respect of age, income, gender and location. In the case of rural areas, households without access to the national grid face an additional limitation in terms powering the devices.

In Uganda today:

- The total population stands at 44.2m,
- Population coverage of 2G mobile services stands at 99% while that of 3G is 87% and 4G is 37%,
- Telephone subscription is at 30.2m (*with ownership of multi-SIM cards a common occurrence*),

- Mobile internet subscribers are 13.6m (*with persons owning multiple devices in the same household*),
- The number of active smart phones are 10.1m,
- The cheapest smart phone costs approximately US $45,
- About 46% of Uganda's total population is aged 14 years and below,
- Nearly 33.8% of the rural population and 19.8% of the urban population are living in poverty based on the measure of US $1.77 per person per day,
- The national electricity access rate stands at 57% of which 19% are on-grid connections and 38% have off-grid connections,

Yet, in April 2022, the Office of the United Nations (UN) Secretary-General's Envoy on Technology and the International Telecommunication Union announced a new set of UN aspirational targets for universal and meaningful digital connectivity to be achieved by 2030. These included:

1. All households having Internet access,
2. All businesses using the Internet,
3. 100% of the population covered by the latest mobile networks,
4. Everyone 15 or older owning a mobile phone.

How can we specifically ensure that all households are connected in such circumstances? Uganda Communications Commission is, through the Uganda Communications Universal Service and Access Fund, conducting a pilot project in which a solar powered tablet with subscription of 3GB per month and a solar charger is given to each participating household selected from among the poorest villages in the country (the bottom of the pyramid). This was complemented with a basic digital skilling component along with guidance on how to access and use some of the applications/content developed with support of the Universal Access Fund and that available from other stakeholders.

The key objective of the project includes the following:

- drive acquisition and usage of ICTs in the selected households with a corresponding spiral effect on other households;
- enhance digital literacy of participants and their communities; and
- foster access to information for use in household socio-economic activities related to health, education, agriculture, citizen participation and lifestyle change.

The initial results indicate great receptivity by the beneficiaries with spin off needs and opportunities while also creating new demand and encouraging further enhancement of network coverage.

GERMANY

Mr. Bjorn Richter
Head of Digital Development Programme
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

Questions:

How is German Development Cooperation furthering the twin-transition of green deal and digital transformation?

What are the experiences of GIZ advising partner governments bridging the digital divides?

The German government declared the **green and digital nexus** as one of its political priorities – at home, as well as in its international cooperation.

The challenges of the green and digital transformation cannot be met by bilateral efforts alone. The German Development Cooperation aims to join forces and align on the international CODES frameworks driven by UNEP, UNDP, Kenya and others. Furthermore, we aim to strengthen the **human-centered approach** on operationalizing the nexus through a concerted European effort that we are driving in the Digital4Development stakeholder forum, co-leading the Digital and Green working group in partnership with Sweden.

Last year, the German Development Cooperation invested an initial 15 million Euro to operationalize the Twin Transition along two fields of action: (1) **making digitalization climate-friendly** and (2) making the best possible use of the potential of **digital technologies to achieve climate goals** together with our partners.

What does this mean concretely? In terms of sustainable digital transformation, we are looking, among other things, at physical infrastructure such as the rapidly growing amount of **data centers on the African continent**. To ensure ecological efficiency from the outset and to strengthen the digital sovereignty of our partner countries, together with the World Bank and

the private tech sector we are working to promote the establishment of **Green Data Centers** on the ground.

Another effort towards a twin-transition is the **GovStack project**, in which we are closely collaborating with ITU: Through GovStack we are enabling innovative services for governments. But even those have an ecological footprint. However, there are possibilities to minimize negative environmental effects. Under the name of **GreenStack**, we develop guidelines and e-learning materials to enable partners to utilize GovStack climate-friendly by default, furthering a sustainable digital transformation.

German development cooperation is active in over 130 countries. In regard to the digital divide, we have found that there already are many successful approaches and best practices that can be transferred to other countries as well. However, this requires an ongoing exchange between changemakers and multilateral efforts.

I would like to highlight a few of our ongoing efforts in this regard:
Through our network of **Digital Transformation Centers** we streamline digital development cooperation in our partner countries in close alignment with local needs and partner priorities. All DTCs pursue the goal of addressing social issues of digital transformation, facilitating access to and use of digital technologies for marginalized groups and reducing digital divides. Special attention is paid to the gender digital divide.

Furthering this goal as well, the **#eSkills4Girls initiative** aims at tackling the existing gender digital divide in particular in low income and developing countries. Together with a strong consortium, including ITU, we increase the access of women and girls in the digital world and boost relevant education and employment opportunities.

Education is a key aspect. Through the **Smart Africa Digital Academy (SADA)** we build digital capacities and provide digital skills. Using the inclusive policy approach from ITU, we focus on policymakers and other stakeholders who actively contribute to shaping and improving framework conditions such as policies and regulations for a sustainable digital transformation – especially in terms of fair and affordable access to the internet and digital services.

Finally, the aforementioned **GovStack Initative** fosters the diffusion of digital policies to bridge the digital divide by offering various communities of practice. From Thursday onwards we are holding the **GovStack CIO Digital Leaders Forum**. Here at WSIS, CIOs from across the world will share their experiences, learn from each other and lay the basis for future cooperation. We are looking forward to building strong partnerships, learn from each other and to jointly bridge the digital divide.

COLOMBIA

Ms. Lina María Duque del Vecchio
Communications Commissioner
Comisión de Regulación de Comunicaciones

Questions:

In order to bridge the digital divide in Colombia, what actions has been taken by the Communications Regulation Commission to promote connectivity in remote areas of the country?

Currently, what are the biggest barriers for the deployment of infrastructure in Colombia?

Missing Statement

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

IEEE

Dr. Maike Luiken
SMIEEE, IEEE-HKN, FEIC, 2022 IEEE Past Vice President - Member & Geographic Activities
IEEE, Canada

Questions:

How can we make the most effective use of ICT in support of adaptation and mitigation measures addressing climate change, and position us and the planet for a sustainable future?

What do you see as barriers to effective use of ICT?

Secretary General, Honourable Ministers, Distinguished Guests, Ladies and Gentlemen, I am honoured to be here today, and to speak on behalf of IEEE as a Specific Activity Partner of the 2022 WSIS Forum. As the world's largest technical professional association, IEEE represents over 400,000 members from more than 160 countries. IEEE's mission is to foster technological innovation and excellence for the benefit of humanity.

It is through our dedicated members that we are working to create a better, sustainable future for all and address climate change challenges through our publications, conferences, standards and more, including the IEEE Sustainable ICT Initiative focused on incorporating green metrics and standards in design concepts, and the IEEE Planet Positive 2030 initiative focused on two outcomes: 'Strong Sustainability by Design' - a Roadmap Compendium with actionable recommendations; and 'Accountable Sustainability by Design' - An Impact Accountability /

Assessment Tool, with a focus on ESG and UN SDG indicators as metrics of success for technology design, deployment, operation, and lifecycle.

In answer to your first question,

The effective use of ICT technologies includes, but is not limited to:

- Sharing trusted knowledge widely - with global, regional, and local context - to enable decision makers and implementers
- Optimizing design and operation of infrastructure, equipment, and processes – across all sectors - for sustainable development
- Overcoming the digital divide
- Increasing access to health care and education globally
- Monitoring the impact of Climate Change adaptation and mitigation measures

Let me comment further on a couple of these points:

- Making trusted knowledge widely accessible:

Responsible transformation from fossil-fuel to 'green economies' is essential to limiting global warming. Progress requires the ability to close innovation gaps, and, most importantly, to share current and future technical knowledge with a focus on "ready access".

IEEE is pursuing a "digital technical knowledge commons", a 'commons' to provide current, technical information and contextualised solutions, monitoring data and related climate change expertise that will significantly aid in evidence-based decision-making and lead to faster implementation, in particular at local and regional levels.

- Optimizing design of infrastructure, equipment, and processes using ICT

While the increased use of ICTs requires an increase in energy use, these technologies have been shown to significantly reduce energy consumption in other sectors. For example, according to the GSMA, the mobile communications industry in 2018 prevented close to 10 times more CO2 emissions across multiple sectors than the mobile networks globally emitted that year.

ICTs can, for example:

- Optimize energy and potentially other resource consumption of the ICT sector itself, and other sectors, such as the manufacturing, energy and built infrastructure sectors
- Optimize traffic flows
- Provide real-time, responsive early warning systems - based on monitoring and data analysis. They are key to disaster preparedness and response. And
- Global, pervasive ICT and sensor deployment is and will continue to be essential to monitoring, enhancing and improving climate change adaptation and mitigation measures.

To your second question: barriers.

Some barriers are:

- Lack of access to electricity,
- Lack of digital literacy,
- Supply-chain uncertainties, and
- Limited resources.

To deploy ICT globally, we need access to reliable electricity supply everywhere, preferable from clean sustainable sources. That is not the case today and poses a fundamental barrier to global ubiquitous deployment of ICT, and hence, prevents universal access to ICT based services like on-line education, health care and government services, to name a few.

Another barrier is the lack of digital literacy. End-users and operators of infrastructure must be aware of the safe and responsible use of digital equipment and services.
A general concern is current device design. If we truly want to design 'with sustainability in mind' we need to include de-manufacturing in the initial design so that at the end of its lifespan a device can be disassembled into components that can be reused, recycled, or separated into materials that will become feedstock for new components – designed for the circular economy.

We are facing many challenges and many opportunities; working together we can unlock and share transformative solutions to ensure a sustainable future.
IEEE is committed to working alongside all stakeholders in the shared mission to advance the WSIS vision, to achieve the SDGs -- and to ensure that we are truly advancing technology for the benefit of humanity. We look forward to continued collaboration with all of you.
Thank you.

ENVISION ASSOCIATES

Mr. Tomas Lamanauskas
Managing Partner
Envision Associates, United Kingdom of Great Britain and Northern Ireland

Questions:

In the ever more complicated world of today, what are the key trends and forces that are affecting our ability to bring the digital connectivity to all?

Drilling deeper in a specific area mentioned above – fighting the climate crisis – is the digital connectivity industry doing enough to play its rightful role on sustainability?

There are a number of external factors that are affecting the development of digital connectivity and ensuring that digital empowerment reaches everyone. Among them we can see some positive developments, some challenges, and some grounds for hope.
First, the positive. As it possibly has now become a cliché, if we ever needed a proof of how crucial the digital connectivity is for us, the pandemic has given us ample of that. And this has helped put the connectivity front and center of the global policy agenda. Last year, G20 has strongly "reaffirm[ed] [the] commitment to bridge connectivity gaps, and […] encourage[d] the goal of promoting universal and affordable access to connectivity for all by 2025". "Our Common Agenda" announced by Secretary General Antonio Guterres includes a clear objective to "connect all people to the Internet".

In a peculiar twist, the pandemic seemed to have created economic conditions to boost the investments into connectivity. A combination of low interest rates, economic stimuli and market uncertainty has generated a strong private investor interest in digital infrastructure, as an asset that has a potential to generate possibly moderate but relatively stable returns.

Finally, a drive to connect everyone – in the recent decades primarily via mobile broadband increasingly supported by fibre networks – has now received a boost from a new space race. Thousands of new satellites, especially in the low earth orbit and middle earth orbit, are being launched with a promise to bring broadband internet to everyone – wherever they are, straight from the sky.

There are challenges though. First, the private sector investments into digital infrastructure are not equally distributed. While North America and Europe have received a lot of attention, other regions have not benefited as much.

Second, the economic environment is changing. Record inflation, rising interest rates and the quantitative tightening make it uncertain whether the digital infrastructure investment drive can last. In May this year, Bain reported[2] that telecom "deal value shrank by more than half in the first quarter of 2022".
Supply chain disruptions are affecting digital infrastructure sector too – as industry is facing shortages of key inputs. Furthermore, the boom in digital infrastructure build-out is threatening to make the industry a victim of its own success – with labour shortages reported in some countries.

Barriers beyond broadband availability remain key constraints of its adoption – especially, affordability, with the cost of new satellite internet offerings making such connectivity beyond the reach of many.

Finally, the looming climate crisis puts in a perspective all other achievements. If we don't have our planet, everything else will not matter much. And the window to make sure we can live here is closing. A recent report from the World Meteorological Organization (WMO)[3] predicts a 50:50 chance in hitting 1.5 degrees Celsius above the pre-industrial levels by 2026.

[2] https://www.bain.com/insights/telecom-m-and-a-here-are-the-latest-deal-trends-worldwide-interactive/?share-date=12-05-2022
[3] https://public.wmo.int/en/media/press-release/wmo-update-5050-chance-of-global-temperature-temporarily-reaching-15%C2%B0c-threshold

But there is hope. First, the governments are appreciating the importance to step up in their investments in digital infrastructure. The United States Infrastructure Bill has allocated 65 billion dollars to expanding access to reliable high-speed internet. European Recovery and Resilience Plan dedicates 20 percent of its overall budget of 750 billion euros to digital transformation, including broadband infrastructure.
Encouragingly, there is a growing recognition of the importance of global solidarity as well. For example, the European Union's Global Gateway strategy aims to mobilise 300 billion euros by 2027 for developing global infrastructure and supporting the green and digital transitions around the world.

Finally, there is a clear opportunity for organizations like the International Telecommunication Union. It is important that we, the ITU community, step up to the plate and leverage the 157 years of experience to help translate the global ambition on connectivity into action – by helping formulate clear targets, bringing all the right players to the table, and by using all the tools in our toolbox to facilitate high-speed, reliable and affordable connectivity for all.

A study conducted in the context of the #tomas4itu campaign has demonstrated that our industry clearly appreciates the importance of sustainability. 88 percent of companies analysed are covering their sustainability practices in their reports.

However, there is still some way to go in setting clear, measurable, science-based targets, committing to concrete actions, and measuring the progress. Only 36 percent of companies have set Science-Based Targets of achieving Net Zero.

We have found, however, a good number of great examples in the industry on how to step up. Hence it is crucial that we learn from each other in addressing this existential challenge of our days.

It is clear - while we are moving in the right direction, we need to work together to raise the ambition on what we can do to contribute to averting the climate disaster and achieving a sustainable world.

UN OFFICE FOR DISASTER RISK REDUCTION

Mr. Ricardo Mena
Director

Questions:

How can disaster risk reduction help raise the climate ambition and build resilience?

What are your key expectations from the COP 27 in this regard?

Missing Statement

ISOC FOUNDATION

Ms. Sarah Armstrong
Executive Director
Internet Society Foundation, United States of America

Questions:

How is your Foundation addressing the issue of environmental protection?

What opportunities do you see emerging in this area for philanthropists and other civil society actors?

Excellencies, ladies, and gentlemen,
it is an honor to speak here today about this important topic.

Thank you for including me. I'm Sarah Armstrong, Executive Director of the Internet Society Foundation. Let me begin with an overview of the Internet Society Foundation: Established in 2019, our work is guided by our vision of An Internet for Everyone. We are a supporting organization of the Internet Society, which shares the same vision. We seek to champion ideas and enable communities to unlock the Internet's potential to tackle the world's evolving challenges. One of these challenges, as we'll discuss today, relates to the environment and climate change. The challenges around the Internet's environmental footprint are many but let me highlight just three:

1. The Internet consumes energy.
Today, approximately 333.2 billion emails are sent per day. The emails we send every day, the movies we stream, and almost everything we do online significantly impacts the environment by increasing the global carbon footprint.

2. The Internet generates waste
The past decades have seen an unprecedented adoption of ICT devices around the world.
A record 53.6 million metric tonnes1 of e-waste was generated around the world in 2019, and this number is on the rise. And as we know, the methods used around the world to extract the valuable metals from this discarded e-waste pose significant health and environment risks.

3. Not enough research is being done on the relationship between the Internet and the environment
Currently there are no think tanks, no research centers, nor any research nonprofits dedicated to the study of the Internet and the environment.
Additionally, there are few funders that support research on the topic. A recent estimate indicated that globally only two percent of philanthropic funding is addressing climate change.

To address these challenges, we need more action. At the Internet Society Foundation, we are acting by supporting more researchers to study the issues.

A Solution: The Foundation's Research Program

1. Our Research Program was designed and launched in 2020 with one of the primary focus areas being "Greening the Internet".
2. We fund researchers who are studying the various challenges around the Internet's environmental footprint.
3. They – and we – recognize that the Internet both impacts and is impacted by the environment and climate change.
4. To date, we have funded 8 projects in 6 countries. Some of the questions these researchers are looking at include:
    - What is the average carbon footprint of a cable station, and what climate solutions might help to mitigate this footprint?
    - How can we identify high-value, high-impact research on the energy and environmental impacts of the digital economy?

Opportunities for philanthropists and other civil society actors

Having now funded four rounds of grants, we see several opportunities in this space for other funders and civil society actors who want to make a difference in this area.

- Firstly, as I mentioned earlier, there is a lack of funding in this area.
- Second, there is an opportunity to further define this space, namely, the intersection between the Internet and the environment. Most of the emphasis to date has been on energy use and the carbon footprint of Internet infrastructure. However, we know that there are myriad challenges in this space that need addressing.
- As the Internet Society Foundation, we see a unique opportunity emerging to bring funders together to further define this intersection, and, to collectively fund more projects that are responsive to and build upon what the research is uncovering.
- Generating greater amounts of research on the Internet and the environment can help influence policy and industry decisions…. that will ultimately shape a more equitable and sustainable future for the Internet and the people it serves.

In closing, again, thank you Your Excellency, fellow Panel Members, and those of you who joined us today for this important conversation. As the Internet Society Foundation, we remain committed to advancing SDG 13 through our work. We will continue to find ways to support the resiliency of the Internet and ensure its sustainability for both people and planet. And we encourage others to step up and do the same.

INTEL CORPORATION

Ms. Sarah Kemp
Vice President and General Manager of International Government Affairs
Intel Corporation, United States of America

What are some policy efforts we can undertake to Bridge the Digital Divide as well as some other types of efforts that are important in spreading the benefits of the information technology revolution more broadly?

What are some efforts being undertaken by Intel to initiate actions and implement projects and programmes for sustainable production and consumption?

Honorable Ministers, Distinguished Guests, Ladies and Gentlemen, thank you for the opportunity to speak to you today. My name is Sarah Kemp and I am Vice President and General Manager of International Government Affairs at Intel Corporation. At Intel, our purpose is to build world-changing technology that improves the life of every person on the planet.

As we consider the important topic of *"Bridging Digital Divides",* it is important to develop policy approaches which facilitate widespread, high-speed, and high-quality, affordable broadband connectivity through technologies such as 5G, Wi-Fi, etc. We recognize that these approaches may vary by country or region since, as noted in this session's description, in some regions the effort would focus primarily on upgrading existing coverage and capacity sites while in other regions nearly half of the radio access network (RAN) infrastructure investments will be greenfield. Policy approaches to closing the digital divide can include market-based spectrum policies, policies that promote competition and investment in broadband, broadband demand

creation programs (e.g. programs for the integration of ICT in education/schools, affordable broadband/device programs for low-income households), and expansion of Universal Service/Access Funds to include broadband in areas where deployment can be cost-prohibitive.

The WSIS Declaration recognizes the importance of expanding the benefits of the information technology revolution. Intel has rolled out Intel® Digital Readiness Programs globally in partnership with governments, academia, civil society, and industry stakeholders as a shared-value initiative to demystify and democratize emerging technologies. Intel Digital Readiness Programs empower wider non-technical audiences, future developers, and next-generation technologists with the appropriate skills, mindsets, tools, and opportunities to use technology effectively and responsibly. Intel Digital Readiness Programs are shared responsibility, shared-values initiatives based on a public-private partnership model. In partnership with 30 governments and 30,000 institutions worldwide, we are committed to scale the program to reach more than 30 million people by 2030 with AI skills training for current and future jobs.

With respect to *Climate Change* and other challenges, it is imperative that we work together as an industry to harness the power of technology and ensure it is being used as a force for good. As part of the WSIS Plan of Action, "Government, civil society and the private sector are encouraged to initiate actions and implement projects and programmes for sustainable production and consumption and the environmentally safe disposal and recycling of discarded hardware and components used in ICTs." Intel has been a long-standing leader in corporate responsibility and sustainability, contributing responsible, inclusive, and sustainable practices across our operations, products, and supply chain. Building on our long history of leadership in this space, we are driving reductions in greenhouse gas emissions, energy use, water use, and waste generation. For example, we achieved net positive water in three countries, sustained 80% renewable electricity globally, and sent about 5% of our total waste to landfill. This work has contributed to us being recognized as No. 1 on Barron's 100 Most Sustainable Companies list. We are also continuing our work on sustainable chemistry, including ongoing efforts to refine the chemical footprint methodology for use in evaluation of the chemical supply chain.

We are committed to increasing the energy efficiency and lowering the carbon footprint of Intel products and platforms, and to working with customers and industry partners to create solutions that lower the greenhouse gas footprint of the entire technology ecosystem.

Thank You.

Session Seven: Inclusiveness, Access to Information and Knowledge for All / Bridging Digital Divides

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/461

Moderated by High-level Track Facilitator:
Dr. Liberato Bautista, President, Conference of Non-Governmental Organizations in Consultative Relationship with the United Nations (CoNGO), United States of America

WSIS Action Line Facilitator:
Mr. Paul Donohoe, Digital Economy and Trade Coordinator, Universal Postal Union, Switzerland

Speakers:

1. **Bangladesh** - H.E. Mr. Mustafa Jabbar, Minister, Posts and Telecommunications Division, Ministry of Posts, Telecommunications, and ICT
2. **Samoa** - H.E. Mr. Toelupe Poumulinuku Onesemo, Minister, Ministry of Communications and Information Technology, Samoa
3. **Romania** - H.E. Mr. Bogdan Dumea, State Secretary, Ministry of Research, Innovation and Digitalization
4. **Niger** - Ms. Aichatou Habibou Oumani, President, Niger Regulatory Authority for Electronic Communication and Postal Service
5. **Sweden** - Mr. Dan Sjoblom, Director General, Swedish Post and Telecom Authority
6. **Azerbaijan** - Mr. Bakhtiyar Mammadov, Deputy Head of Administration, Ministry of Digital Development and Transport

7. **Promis@Service -** Dr. Caterina Berbenni-Rehm, Founder and CEO
8. **Open Health Network -** Ms. Tatyana Kanzaveli, CEO
9. **Bangladesh NGOs Network for Radio & Communication (BNNRC) -** Mr. AHM Bazlur Rahman, Chief Executive Officer

Executive Summary by High-Level Track Facilitator

Here are a few highlights from the panelists' presentation:

1. Paul Donohoe (UPU): Noted that 225,000 post offices worldwide are connected to the internet and thereby provide services to both rural and urban communities they serve. This however leaves some 400,000 other post offices that remain to be connected.

2. H. E. Mustafa Jabbar (Bangladesh): Noted that "Connecting the unconnected" is embedded in the "Digital Bangladesh" paradigm of the Government which was adopted in 2008. The "Digital Bangladesh" vision, arguably, runs in parallel to the Information Society vision advocated by the WSIS. With 183.5 million telephone subscriptions and 125 million internet subscriptions, Bangladesh is the ninth-largest mobile telecom market in the world. At present 4G mobile network is covering about 96% of the population and 98% of the geographical area of Bangladesh."

3. H. E. Mr. Bogdan Dumea (Romania): Noted that "The multidimensional impact of pandemic on all layers of society has revealed vulnerabilities and showed us how fragile our resilience is when facing such crisis. In response to the pandemic, we could see the vital role the governments played in mitigating the immediate and long-term COVID-19 effects by adopting strategies aimed at improving the resilience of digital infrastructure." Also, that "The integration of ICT in education has broken many barriers than have been anticipated. ICTs have bridged the gap in online education, and this was even more visible during pandemic. However, we need to widen access to education for those who need it the most, to increase investment in digital technologies and platforms for educational purposes, to accelerate digitalization in schools."

4. H. E. Mr. Toelupe Poumulinuku Onesemo (Samoa): Noted that Samoa's "focus remains in ensuring we have up-to-date digital technologies that is affordable and accessible to all, while we also recognize the importance of keeping our citizens, our businesses and our country safe online. This focus will only be implemented successfully if we work together in using the ITU guidelines and agree on a single solution. But like many countries, we continue to face

challenges in supporting inclusiveness and access to information and knowledge. We recognize that access to information combines both the use of modern technologies and basic communication broadcasts for those citizens residing in areas that are not able OR willing to utilize ICT to access information, taking into account the lack of digital literacy."

5. Aichatou Habibou Oumani (Niger): Noted the important role of internet hubs and cyber cafes in the digitalization of Niger society, including in education.

6. Mr. Dan Sjoblom (Sweden): Noted that "From a national perspective the number of physically connected is very high but the rural challenge is far from addressed. We can also see that many groups, often vulnerable groups such as elderly or migrants, are not using digital services." Mr. Sjoblom belies that "strongly in involving many stakeholders in the process, both public and private. The regional perspective is important and municipalities have played an important role in the buildout. From a global perspective we believe in cooperation with others. As a telecom regulator I see clear benefits of regulatory interaction. We engage regularly with other regulators from across the world."

7. Mr. Bakhtiyar Mammadov (Azerbaijan): Noted that "COVID-19 pandemic turned out that, much more attention should be given to bridging existing and emerging digital divides to allow all countries to take advantage of digitalization. COVID-19 accelerated the pace of digitalization worldwide, increased strategic importance of emerging technologies for governments around the world. As from healthcare to education, to transportation, emerging technologies could improve the delivery of public services. The positive economic and social potential of new technologies has been clearly recognized by governments, with increased policy attention and investments being channeled to the development of national ecosystem. Therefore, affordable and secure connectivity in mobilizing new and emerging telecommunications/ICTs for sustainable development is considered as an enabler of development of the sector. We believe that affordability can accelerate digital transformation. "

8. Dr. Caterina Berbenni-Rehm (Italy): Noted that "Bridging digital divides cannot be just a matter of technology; there is also an urgent need to focus on the "soft", i.e. intangible, aspects of what makes technology such a valuable instrument in the service of humanity, for example cognitive science, psychology, cross-cultural aspects, multilingual communication, rules and ethics, both in science and at work. This is the foundation of what we call the 'Circular Economy of Multilingual Knowledge'. It is a very important framework for pre-structured, multilingual Big Data and for the evidence-based use of Artificial Intelligence."

9. Ms. Tatyana Kanzaveli (USA): Noted that "COVID-19 pandemic underscored the necessity of broadband access in providing essential services to people. In the U.S., everything from access to credible information about the pandemic to scheduling vaccinations ad the gathering and analysis of data on the pandemic was dependent on widespread broadband access. Those who did not enjoy that access were at a major disadvantage for their individual care."

10. Mr. Ahm Bazlur Rahman (Bangladesh): Underscored the role of radio in the dissemination of information and knowledge, and that radio played a major role in educating the Bangladesh society about the Covid-19 pandemic.

BANGLADESH

H.E. Mr. Mustafa Jabbar
Minister
Posts and Telecommunications Division, Ministry of Posts, Telecommunications and ICT

Questions:

What steps Bangladesh Government has taken to connect the unconnected people?

How has Bangladesh met the affordability target on internet prices set by the United Nations Broadband Commission for Sustainable Development in 2021?

"Connecting the unconnected" is embedded in the "Digital Bangladesh" paradigm of the Government which was adopted in 2008. The "Digital Bangladesh" vision, arguably, runs in parallel to the Information Society vision advocated by the WSIS.

With 183.5 million telephone subscriptions and 125 million internet subscriptions, Bangladesh is the ninth-largest mobile telecom market in the world. At present 4G mobile network is covering about 96% of the population and 98% of the geographical area of Bangladesh.

In order to ensure meaningful connectivity, our initiatives include-

- Establishing High-speed optical fiber networks up to the rural areas;
- Serving remote and hard to reach areas with Bangladesh's own GEO satellite;
- Connecting all the universities, higher education institutions, colleges, schools, economic zones, export processing zones, and industrial hubs with high-speed optical fiber network.
- Increasing existing backhaul and international transmission capacity;
- Allocating sufficient spectrum to the cellular-mobile operators;
- Bringing more than 50,000 government offices together with their information and services online;
- Establishing about 4,000 public Digital Centers and Post e-centers, countrywide;
- Establishing a robust Digital Financial Service ecosystem.
- Integrating ICTs and DTs in the school curriculum and making sufficient scopes of training;
- Local manufacturing of CPEs especially mobile handsets;

The goal of the Government is to build a strong, effective, and affordable digital ecosystem;

The commitment of the Government was to make the voice and data services affordable to all the citizens of the country. To achieve the goal, our target was to build a competitive and investment-friendly digital industry. The National Broadband Policy, 2009 and International Long Distance Telecommunication Policy, 2010 played a vital role in meeting the targets. These policies paved the way for new service providers while lowering the entry barrier. The major steps towards meeting the affordability targets were-

- Separating transmission services which reduced the capex and opex for the cellular-mobile and internet service providers.
- Financing establishment of the nationwide backhaul transmission network.
- Increasing the number of licenses for International Terrestrial Cable, International Internet Gateway, and National Internet Exchange services;
- Allowing passive infrastructure sharing amongst the operators;
- Reducing the SIM tax;
- Reducing the tariff of international bandwidth;
- Making government services online which increased the number of subscribers thereby service providers started to get the benefit of the economics of scale;
- Reducing the allocation cost of the radio frequencies;
- Allowing technology neutrality for the radio frequencies used in cellular-mobile services.

- Reducing the cost of backhaul transmission services;
- Ensuring the same tariff of broadband throughout the country;

While promoting competition in the market, Government always encourages the operators to adopt cutting-edge technologies and maintain Quality of Service.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

SAMOA

H.E. Mr. Toelupe Poumulinuku Onesemo
Minister
Ministry of Communications and Information Technology

Questions:

What is the role of the private sector in the collaborative approach by the Government to ensure inclusiveness for all?

What policies has the Government of Samoa developed in addressing the issue of affordable and secure technologies?

Your Excellency, Professor Isa Ali Ibrahim, Chairman of the WSIS Forum 2022

Esteemed Representatives of ITU Member States Distinguished Guests

Ladies and Gentlemen

Thank you for the opportunity to address you today. It is indeed a privilege to be part of the World Summit on the Information Society (WSIS) Forum 2022 high level policy session, on the theme, "Access to Information and Knowledge for All." I take this opportunity to acknowledge and congratulate the Secretary General, Mr. Houlin Zhao and the team here at the International Telecommunications Union (ITU), for successfully coordinating this excellent event, bringing together experts in different fields of ICT to share knowledge, learn from each other and enable a shared platform where we can implement and successfully achieve Sustainable Development Goals (SDGs) and Targets.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Excellencies,

Ladies and Gentlemen,

Inclusiveness, Access to Information and Knowledge for All, is a fundamental right. The right to information is protected under International Human Rights Law and, specifically, Article 19 of the International Covenant on Civil and Political Rights, to which Samoa acceded on February 15th , 2008.

In this regard, the Government of Samoa is committed to continuing to provide for sector-specific disclosure of information through sector-specific legislation, and to continue to support ICT developments across the country. This commitment enables citizens to access information and share knowledge, by using technology and developing business models with the current resources that is available to us, taking into account our Samoan culture, language and small population.

The current pandemic has highlighted the need to move rapidly into initiating innovative approaches to enable our communities to connect and communicate with each other during these difficult times. Our digital transformation efforts continues to be a pillar for our sustainable development, bringing together stakeholders on a multi-stakeholder collaborative effort. Samoa, being a member of the ITU continues to make progress in digital inclusion as one of our contributions to the ITU and United Nations goals as a dependable and committed member.

Our focus remains in ensuring we have up-to-date digital technologies that is affordable and accessible to all, while we also recognize the importance of keeping our citizens, our businesses and our country safe online. This focus will only be implemented successfully if we work together in using the ITU guidelines and agree on a single solution.

But like many countries, we continue to face challenges in supporting inclusiveness and access to information and knowledge. We recognize that access to information combines both the use of modern technologies and basic communication broadcasts for those citizens residing in areas that are not able OR willing to utilize ICT to access information, taking into account the lack of digital literacy.

The Government of Samoa acknowledges these areas and have developed policy frameworks towards improving our services, to ensure that we, not only bridge the digital gap that currently exists but maintaining our vision for a Better Quality of Life for All, and also to uphold our obligations to international laws and conventions.

Excellencies, Ladies and Gentlemen,

Allow me to reiterate our government continuous effort to pull together all the available assistance towards our determination to achieve our overall goals of an inclusive digital society, that is based on strong partnership and international cooperation.

We place heavy emphasis on what we can achieve together as a nation, to ensure that our people are given the right to access information and be made available to them.
I am honored to be given the opportunity to be part of this session, where we discuss and find solutions to the challenges that we are currently facing in our own countries.

An opportunity to share experiences across our ITU Member States. An opportunity to combine all the possible innovative ways that we can come up with, in order to assist our Member States in their respective efforts, to ensure our citizens have equal access to information and knowledge.
I wish you all the very best in your deliberations and way forward during this Forum.

Soifua ma ia Manuia

ROMANIA

H.E. Mr. Bogdan Dumea
State Secretary
Ministry of Research, Innovation and Digitalization

In your view, how could/ should governments prepare a proper environment to enable future resilience? What is Romania doing to tackle this challenge?

In your opinion, what is the way forward in using ICT for an inclusive society?

The multidimensional impact of pandemic on all layers of society has revealed vulnerabilities and showed us how fragile our resilience is when facing such crisis. In response to the pandemic, we could see the vital role the governments played in mitigating the immediate and long-term COVID-19 effects by adopting strategies aimed at improving the resilience of digital infrastructure.
Prior to the pandemic, a shift towards digitization was already underway in Romania and the pandemic have accelerated this. It is an ongoing process meant to increase the quality of services, the number of jobs and to have a safe and secure infrastructure.

Romania has the necessary infrastructure to accelerate digitization and we have already seen our entire sector taking proactive steps to meet increasing demand for digital products and services. Romania will continue to make progress in integrating the various initiatives and projects into a strategic vision.

Looking ahead towards global recovery, I believe that it is now critical for us, as policy makers, to learn from this hard experience that exposed connectivity and digital infrastructure

limitations and take concrete measures to step up further and create a safer environment for all. This can

be fulfilled with a common vision, targeted strategy that addresses inefficiencies and maximizes opportunities.

The integration of ICT in education has broken many barriers than have been anticipated. ICT have bridged the gap in online education, and this was even more visible during pandemic. However, we need to widen access to education for those who need it the most, to increase investment in digital technologies and platforms for educational purposes, to accelerate digitalization in schools.

We must continue to ensure equitable access to the digital resources for all, including disadvantaged and vulnerable people, to enable a truly gender-inclusive digital world by fostering digital skills and IT&C education for women and girls, to name a few.

We are all in this together and each of us can play a role in advancing an inclusive and integrated society, to clear a path to a more equitable future.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

NIGER

Ms. Aichatou Habibou Oumani
President
Niger Regulatory Authority for Electronic Communication and Postal Service

Questions:

What efforts have been made in your country, Niger to guarantee inclusiveness and access to information and knowledge for all?
Can you share some success stories from Niger?

Dès l'ouverture du secteur des TICs à la concurrence, l'État du Niger avait mis en place un fonds des services universels pour garantir l'accès aux services TICs dans les zones non couvertes par les opérateurs, les zones vues comme économiquement non viables. Ce fonds sert à financer les projets pour couvrir ces zones non desservies. Tout dernièrement, le gouvernement a lancé un projet dénommé "Villages intelligents », Le projet "Villages intelligents", ainsi que ses axes stratégiques prioritaires, consiste à connecter aux outils numériques les zones administratives de 15 000 villages du Niger, et à donner aux populations de ces régions l'accès à des services électroniques. La mise en œuvre du projet accélérera et facilitera la connexion de plus de 85% de la population.

Ce projet est en fait la "porte d'entrée vers le développement rural", grâce à la mutualisation des ressources et à la coordination des programmes de développement, qui devraient créer la synergie nécessaire pour assurer la pérennité des investissements.

En plus du Fonds de service universel, ce projet bénéfice d'un financement de la Banque mondiale.

L'ANSI a déployé des centres communautaires numériques dans toutes les régions du Niger. Une dizaine est déjà opérationnelle et 150 seront déployés sur les 2 prochaines années. Ces centres assurent l'inclusion numérique et financière des populations en zones semi-urbaines et urbaines.

L'ANSI déploie aussi des containers aménagés en lieu d'apprentissage dans les communes du Niger.

Un portail « service-public.ne » permet l'accès aux démarches administratives aux populations. Plus de 100 démarches administratives sont déjà accessibles.

Une académie de codage a ouvert ses portes et reçois des étudiants/étudiantes de toutes les régions du pays et de toutes les couches sociales.

Avant l'avènement du projet « Villages intelligents », l'ARCEP avait initié des projets pour assurer l'accès Internet et le désenclavement de certaines régions à travers la mise en place de cybercafés communautaires.

En effet, dans le cadre de la réduction de la fracture numérique, l'Autorité de Régulation accompagne les régions en les dotant des cybercafés équipés de toutes les commodités.

Comme vous le savez, aujourd'hui, les Technologies de l'Information et de la Communication, s'affirment comme des outils d'aide à la mise en œuvre des stratégies de développement.

Conscientes des enjeux de ces infrastructures, les plus hautes autorités du Niger ont, très tôt, inscrit le développement du réseau Internet dans leur cahier des charges.

En plus de l'accès à Internet, les cybercafés offrent des formations à la jeunesse et permettent aussi sur un plan tout à fait pratique, de rendre accessible les innombrables ressources documentaires disponibles sur le réseau pour combler efficacement le manque d'ouvrages et autres outils de références nécessaires à la formation des jeunes élèves et étudiants.

Ces cybercafés sont équipés de micro-ordinateurs ; scanners ; imprimantes multifonctions ; de connexion internet haut débit et logés dans des locaux en matériaux définitifs.

Dans beaucoup de régions, les cybercafés créés par l'ARCEP servent de lieu de recherche pour les enseignants chercheurs, pour la formation de cadres de l'administration sur les logiciels

informatiques. Dans une des localités bénéficiaires, plus de 4000 jeunes avaient été formés à travers les cybercafés.

SWEDEN

Mr. Dan Sjoblom
Director General
Swedish Post and Telecom Authority

Questions:

What are the main societal challenges today?

What is Sweden's take on addressing these challenges?

Thank you for those interesting questions!

My name is Dan Sjöblom and am the Director General for the Swedish Post and Telecom Authority, representing Sweden here today.

I was in 2020 chair of the European body for telecom regulators, BEREC, and had also the opportunity to chair the ITU GSR. In 2021, I was vice Chair of the regulatory cooperation for the countries in the European Eastern Partnership, EaPeReg.

The potential of digital technologies is enormous. For societies, it creates opportunities for increased growth and prosperity, while giving individuals easier access to information and education – when the right conditions are in place.

Digital transformation is not only a technical issue, but a fundamental precondition for participating fully in today's society. The COVID-19 pandemic, in particular, has demonstrated the need for connectivity and basic digital skills.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Bridging the digital divide is one of the main challenges of societies today. The global digital divide must be bridged in order to realise the full potential of digital transformation. It is an important step towards global equality and cohesion, benefitting everybody.

When speaking of digital divide there are many aspects to consider. I like the concept of "true connectivity" as it embraces the full challenge of citizen's access to information.

Physical access is important and we need to strive for technological and regulatory development to make sure everyone can have a physical access in some form, fixed or wireless.

But equally important is the usage where we need to ensure a **meaningful access** for all citizens. We see today that vulnerable groups are not part of the digital society.

It is equally important that we have a **global perspective**. The divide between more developed countries and less developed countries has to be addressed.

So, what is a Swedish perspective on this?

From a **national perspective** the number of physically connected is very high but the rural challenge is far from addressed. We can also see that many groups, often vulnerable groups such as elderly or migrants, are not using digital services.

We believe strongly in involving many stakeholders in the process, both public and private. The regional perspective is important and municipalities have played an important role in the buildout.

From a **global perspective** we believe in cooperation with others. As a telecom regulator I see clear benefits of regulatory interaction. We engage regularly with other regulators from across the world.

We are currently involved in a **capacity building** program in sub-Saharan Africa. Over the past six years, the Swedish Post and Telecom Authority and SPIDER, a project with Stockholm University, has contributed to capacity-building to more than 30 countries, by supporting regulators on fulfilling their strategic targets but at the same time engaging in discussions on joint challenges.

Swedish businesses support **GIGA**, an ITU and UNICEF initiative aiming to connect every school in the world to the internet. Sweden is one of the founders and financiers of the Digital Impact Alliance (**DIAL**), which cooperates with ITU to support a holistic approach to digital transformation. This includes responsible data use, funding and procurement, with a focus on leaving no one behind in strategic digital investments.

I am glad to speak at **WSIS** as the world is hopefully coming back to some normality after COVID-19. The challenges we face we need to face together and I believe WSIS and ITU to be good platforms to meet and discuss solutions going forward.

A strong and **active ITU** is vital to addressing these challenges together. Being one of the founders of ITU, Sweden has always been engaged in, supported and contributed to developing the organisation's mandate and objectives.

Sweden is highly committed to a continued engagement in ITU and I am proud the we are a candidate for the Council of the ITU. Sweden has been successful in strengthening connectivity on the national, regional, and international level and now we wish to bring this knowledge to the ITU-Council.

In the coming years Sweden will continue to ensure that digital transformation will be a catalyst for equitable societal development, effective governance, transparency and openness.

AZERBAIJAN

Mr. Bakhtiyar Mammadov
Deputy Head of Administration
Ministry of Digital Development and Transport

Questions:

What are the main challenges and way forward for bridging digital divide in post-pandemic era?

What measures are being taken in Azerbaijan to accelerate digital development and eliminate digital divide?

Dear colleagues,
Ladies and gentlemen!

First of all, I would like to express my gratitude to all colleagues - participants of the World Summit on Information Society Forum 2022 which represents the world's largest annual gathering of the ICT for development community and to SG Mr. Houlin Zhao, DSG Malcolm Johnson, Director, ITU Telecommunication Development Bureau Doreen Bogdan-Martin for making this Forum possible which helps us to exchange of our opinions and hold discussions on our vision of the WSIS. The WSIS Forum is aimed at creating a discussion forum for accelerating the building of ICT infrastructures and capacities for worldwide information societies and creates an opportunity for participants to share knowledge and experiences in the use of ICTs for the promotion of quality education through and improved teaching and learning process.
COVID-19 pandemic turned out that, much more attention should be given to bridging existing and emerging digital divides to allow all countries to take advantage of digitalization. COVID-19

accelerated the pace of digitalization worldwide, increased strategic importance of emerging technologies for governments around the world. As from healthcare to education, to transportation, emerging technologies could improve the delivery of public services. The positive economic and social potential of new technologies has been clearly recognized by governments, with increased policy attention and investments being channeled to the development of national ecosystem.

Therefore, affordable and secure connectivity in mobilizing new and emerging telecommunications/ICTs for sustainable development is considered as an enabler of development of the sector. We believe that affordability can accelerate digital transformation.

For example, in Azerbaijan, almost 85% of the country's population use Internet. According to 2020 statistics 85% of households (82% in rural and 88% urban areas) have access to internet at home. Fixed broadband subscriptions per 100 inhabitants is 20. However, on the downside, roughly 70% of the connected households have access to internet via an outdated DSL technology, which brings the connection quality down.

In this regard, we, as government officials in charge of digital development, information and communication technologies, should discuss opportunities and review possibilities for cooperation.

I would like to note that over the past decades, as we began to talk about the digital divide, unfortunately, we have not been able to achieve great achievements on a global scale. It is true that a lot has been done over the years, but the dynamics of technology development is far ahead of our efforts to implement them. And unfortunately, with each round of development, the cost of implementations increases, and this slows down our efforts bridging the "digital divide".

However, we can only be successful using modern technology. This fact determines the basis for cooperation, both by neighboring countries and by the creators of new technologies, manufacturers of equipment and software, with international organizations defining standards and rules for interaction. Today developing the ICT sphere, economic and social spheres, investing large investments needs appropriate steps in digital transformation.

In Azerbaijan, the development of high technologies, including the ICT sector, is a priority of state policy. The projects being implemented take into account internal needs, and also provide for opportunities for regional use.
I would like briefly inform you about digital development in the Republic of Azerbaijan.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Nowadays, ICT has widely penetrated our lives and has turned into the most dynamic sector of the world economy.

Azerbaijan, as a country with dynamic economic development, is currently experiencing very rapid and intensive development of ICT. Our aim is increase the percentage of fixed broadband subscriptions using the FTTH (Fiber to the Home) networks.

Implemented in phases, the project will achieve full home broadband internet coverage by 2024, with a minimum speed of 25Mb/s.

We believe that, competition between private broadband providers in last-mile segment and smart regulations may help increase affordability of internet in the country.

Another option for affordability is mobile internet. Mobile data is becoming increasingly affordable. Private companies around the world already offer payment instalment plans, subsidies, and loans.

In Azerbaijan, the entire population is covered by a mobile-cellular network. Mobile broadband internet is widespread, so far active mobile-broadband subscriptions per 100 inhabitants is 73.

Digital literacy and skills for inclusive access. I would like to share your view on a lack of digital skills is a strong barrier to the effective use of the ICTs.

Bearing in mind that the rapid development of emerging technologies creates new requirements and expectations on workers and as we aware that the nature of job market has become volatile due to technological advancement with imbalance between demand and supply side, governments, businesses and citizens, all are experiencing a skill gap in benefitting from alternatives that advanced technologies offer.

In order to address the digital gap and to foster digital empowerment, ICT LAB Application and Training Center of the Ministry organizes trainings in digital skills actively involving marginalized groups including girls and women, children and youth in order to expand the application of ICT in daily life and business.

In the meantime, the specific digital programs on data analytics, internet of things, CompTIA Security+ are being organized by the ICT Lab. I have to mention that, more than 140 people trained at the first 4 months of 2021.

We believe that, the application of emerging technologies should not be ignored by government, organizations and society and their collaboration should be developed in a way to face specific challenges in digital skills development.

As for New and emerging technologies and services to facilitate the use of telecommunications/ICTs for sustainable development, emerging technologies such as 5G, AI, IoT, Big data can foster the sustainable development.

In recent years, Azerbaijan has taken important steps at the state level towards the application and development of innovative technologies. Thus, the Decrees and Orders adopted by the President have laid the foundation for the legal framework for the development of these technologies in the country. These include:" The Strategic Roadmap for the Development of Telecommunications and Information Technologies", "The Decree on the Establishment of the Fourth Industrial Revolution Analysis and Coordination Center", "The approval of the Azerbaijan 2030: National Priorities for Socio-Economic Development", 'The Order on the Development of the Smart City and Smart Village Concepts' and the Decree on Digital Transformation.

The development of broadband Internet network, which is the basis of ICT infrastructure, "Government Cloud", "Big Data", "Smart City" and "Smart Village" are being implemented in the country.

It should be noted that, the application of 5G technology is one of the important goals set by afore-mentioned Decrees and Orders.

Keeping the pace of steady ICT development with diffusion and spreading to other sectors of economy is another goal. On 27th April 2021 President of the Republic of Azerbaijan issued Decree № 1325 in which assigned MTCHT of the Republic of Azerbaijan on organization, coordination and implementation of activity in the field of digital transformation. On 11th October 2021 by Presidential Decree, the Ministry of Transport, Communications and High Technologies of the Republic of Azerbaijan became a new Ministry of Digital Development and Transport with expanded responsibilities and liabilities in the field of sustainable and innovative ICT development. Two public legal entities under framework of the MDDT of the Republic of Azerbaijan has been created:

1. Information Communication Technologies Agency
2. Innovation and Digital Development Agency.

By developing the national telecommunications infrastructure, despite the fact that we are a landlocked country, we serve as the main and alternative route for the project EPEG (Europe-Persia Express Gateway), a fiber-optic line stretching from Frankfurt to Oman. By initiating project TASIM – Trans Eurasian Super Information Highway, Azerbaijan provided transit opportunities for ourselves, as well as for the countries of the region. Today, active work is underway with Kazakhstan and Turkmenistan to plan the laying of fiber-optic cable under the Caspian Sea. Other countries of the region are also interested in this project.

The implementation of such projects will serve to reduce the digital divide in the region and we are open to cooperate, ready to share our experience.

In conclusions, I would also like to touch on the ITU's crucial role to establish multilateral collaboration mechanisms and consolidating potential of member states in addressing major development challenges. Knowing that, as a member-country and member of Council, we pledge our strong commitment to continue cooperation within the ITU towards achieving global developments goals and accelerate progress.

Thank you!

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

PROMIS@Service

Dr. Caterina Berbenni-Rehm
Founder & CEO
PROMIS@Service, Italy

Questions:

Mrs. Berbenni-Rehm, you have been working for more than 20 years in developing services and practice-oriented answers to the challenges connected with "how to make Knowledge a tangible, i.e. measurable, asset". What are the lessons you have learned so far, and which role do you ascribe to the accessibility of public content worldwide?

It is clear to all of us that, if we want to achieve the United Nations Sustainable Development Goals by 2030, one of the major challenges to be solved remains to remove the digital divides. Do you believe that bridging or removing digital divides is a matter of mere technology or which additional "essentials" would you add to it?

I ascribe an essential role to the accessibility of cost-free public content because the core mission of public institutions is to generate knowledge and disseminate it among the society they serve.

Bridging digital divides cannot be just a matter of technology; there is also an urgent need to focus on the "soft", i.e. intangible, aspects of what makes technology such a valuable

instrument in the service of humanity, for example cognitive science, psychology, cross-cultural aspects, multilingual communication, rules and ethics, both in science and at work. This is the foundation of what we call the 'Circular Economy of Multilingual Knowledge'.

It is a very important framework for pre-structured, multilingual Big Data and for the evidence-based use of Artificial Intelligence.

Nowadays, whether in an institutional or private setting, knowledge…

• …is increasingly archived and managed with technology (by both hardware & software), • …tends often to come from more than one country at a time,

• …increases in value at the intersection between different cultures and languages,

• …is always generated by individuals, - whether scientists, managers or workers - whose knowledge and experience represent their most valuable capital, no matter what their level of academic education. Everything we have done in recent years, and will continue to do, focuses, at the practical and human level, on the Circular Economy of Multilingual Knowledge, and centres on the question of how to make knowledge a tangible asset.

This knowledge is, after all, what you and I are paid for as professionals. If we are to build a society based on people-centred information, we have to value and respect not only what we call 'explicit knowledge' but also, and perhaps more importantly, 'tacit knowledge'.

These two related elements can be fruitfully combined to help bring about an "overall creative knowledge". Appropriate here is Michael Polanyi's memorable remark: "We can know more than we can tell." International challenges can only be faced and solved on a global level with: (i) Worldwide communication and shared understanding; (ii) Inter-cultural and cross-cultural dialogue; (iii) Knowledge-sharing between generations; (iv) Communities of knowledge, where 'tacit knowledge' is recognised and intellectual property is respected; this is key to developing structured intellectual capital. For us, the "essentials" that are needed to bridge the Digital Divide and support the take-up of Information and Communication Technologies are:

1. Multilingualism – Modern society is multicultural and multilingual but the use of English as the sole common language, inhibits shared understanding that can only arise out of multilingual approaches to the same problems. There is an opportunity here to harness individual and collective multilingual knowledge, standardised taxonomies, terminologies, methodologies and rules, all in a way that genuinely supports shared understanding, collaboration and the valorisation of individual and collective knowledge on an international scale.

2. Recommendations, guidelines and standards, which involve multi-stakeholder international organizations. A synergic approach is essential if we are to implement solutions for everyone, because for the equitable development of emerging economies, it is vital to respect their own cultures.

3. Social Business Model in which respect for and valorisation of individual knowledge may create a kind of 'natural selection' regarding the quality (or irrelevance) of data and information. Diversification of services and solutions are generated by the people, entrepreneurs and business leaders themselves, in sectoral, as well as ready-for-use turnkey solutions that can be shared and/or sold via e-commerce (thereby industrializing knowledge with a clear distinction between free-of-charge and paid-for content).

4. 'Ethics-by-Design', combined with 'AI-by-Design' i.e. a development and refinement of the methodologies and rules implemented in ICT tools. In all fields of science and innovation, ethical aspects and rules affect us very much in our daily work, one way or another. In fact, ethics and the responsible use of AI are increasingly becoming two sides of the same coin, demanding equal consideration, analysis and reflection, because of the consequences they bring about, for good or ill. The opportunity here is to offer an infrastructure of support for all users, both in science and in the workplace, building upon a versatile framework, structured by humans, for the evidence-based and responsible use of AI - all this in a way that supports the structuring of multilingual knowledge, as well as the kind of Big Data management that will guarantee the quality of outcome that users need and are looking for.

The essentials mentioned above -multilingualism, standards and social business model- have already been developed in the versatile PROMIS® Eco-System Platform2 that enables people's efficiency, in the form of interactive and multilingual services. They are considered the starting point for promoting global communication and facilitating conformity with legislation by:

- Maintaining conformity to legislation and promoting evidence-based decisions,
- Offering multilingual support, largely to avoid serious mistranslations,
- Standardizing terminology to promote shared understanding and trust,
- Implementing knowledge transfer between generations (eMentoring).

The methodology is based on a hierarchical ordering of information, in which all relevant knowledge related to the individual business processes and their derivatives is collected and maintained electronically, in a centralized form and free of redundancies, as far as reasonably

possible. It is based on standardized reference models, submitted for validation by neutral and independent organizations and based 2 PROMIS® is a new type of multilingual knowledge management system implemented with the versatile Integrated Management System framework. When combined with the multilingual terminology and cross-lingual information retrieval they form a powerful platform for structured process documentation, compliance management, community building, multilingual communication, smart collaboration and e-Mentoring on the collective experience and skills of a community of experts. The shared knowledge and innovations collaboratively developed by the community are continually improved by adopting an evidence-based model of knowledge management. In this way, the knowledge within the organisation, concerning 'How', 'Why' and 'By which rules', is structured and made available to all, managers and employees individually, for the particular task in hand and on a 'need-to-know' basis so that all relevant requirements become transparent. The services offered by the e-Platform not only respond to the steadily increasing requirements and needs of private and public organisations regarding different types of regulations, norms and integrated management quality performance standards at local, national, and international levels; they also respond to the increasing needs of harmonisation, cross-lingual communication, collaboration and participation that private and public organisations are experiencing in their international markets. In an increasingly globalised culture, knowledge is arguably the most valuable good of humanity, but it is open both to use and misuse. It is the combination of ethics and the responsible use of AI, in all fields of science and in the world of work, which will make all the difference as we strive towards a more inclusive and just society.

In the WSIS Declaration we read that "bridging the digital divide requires strong commitment by all stakeholders". Our commitment in supporting the implementation of the Action Lines is:

1. to share the e-Platform, related methodologies and services, as well as the transfer of knowledge and innovation;

2. to investigate the possibility to sign Memoranda of Understanding or other agreements with ITU and other public and private organisations;

3. to build multi-stakeholder alliances with partners who, sharing our view of the importance of shortening the time to market of innovation with a high socioeconomic value, are at least as ambitious as we are, maybe more so;

4. to continue developing recommendations, guidelines and standards, involving international multi-stakeholder organizations.

A collaborative and synergic approach is essential if we are to implement solutions for everyone because, for the equitable economic and social development of emerging economies worldwide, it is vital to respect their own cultures, traditions and lifestyles.

Thank you.

OPEN HEALTH NETWORK

Ms. Tatyana Kanzaveli
CEO
Open Health Network

Questions:

Is there a relationship between access to a broadband and healthcare?

Can access to broadband help us with managing future pandemics?

Mr. Chairman and Distinguished Colleagues,

Let me express my sincere gratitude to the organizers of the World Summit on the Information Society (WSIS) Forum 2022 for the invitation to participate in this important event, which will serve the further development of societies based on information and knowledge.

You have posed two important questions that we must address – in both developed economies as well as in developing ones.

Internet connectivity, particularly access to broadband, is playing an increasingly central role in the provision of healthcare and in maintaining public health. Therefore, access to a broadband connection is vital to equity in healthcare and to success in managing public health, from addressing chronic issues that contribute to diseases such as diabetes and cancer, to rapid government response to pandemics.

Beyond direct access to health services, however, broadband access has an even larger role to play given its impact on social determinants of health, including education and employment opportunities. Because broadband access intersects with so many social determinants of health, several organizations have recently defined broadband access as a "super-determinant" of health.

With the rise of digital health care, the U.S. faces a significant challenge because of unequal access to broadband technology. Some 43% of adults in households earning less than US$30,000 a year — more than 25 million American adults, or 10% of the adult population — lack a high-speed internet connection. Those with limited or no internet access are unable to communicate online with their physicians, obtain electronic medical records, or access online health resources, all of which can improve health outcomes.

Indeed, the COVID-19 pandemic underscored the necessity of broadband access in providing essential services to people. In the U.S., everything from access to credible information about the pandemic to scheduling vaccinations ad the gathering and analysis of data on the pandemic was dependent on widespread broadband access. Those who did not enjoy that access were at a major disadvantage for their individual care.

Broadband access also has a crucial public health role to play in future pandemics. Aggregated health data gathered via sensors, smart devices and other databases will be essential to the early detection of potential epidemics. These same sources will enable public health authorities to gather key information about characteristics of the new viruses. They also will depend on broadband in order to monitor healthcare data to determine the effectiveness of treatments, disease progression, evaluate the speed of the virus spread and more.

Crucially, the delivery of healthcare services remotely through "telehealth" approaches hinges on access to fast and reliable broadband. Telehealth offers enormous potential to improve access to care in many communities that lack abundant physical healthcare resources, including low-income and rural areas. Yet, without widespread broadband access, this promise will remain largely unfulfilled.

My company, Open Health Network, has seen this firsthand. We are advancing digital health by collecting, processing and analyzing remote patients and clinical data in innovative ways to support personalized care for a range of diseases by highly collaborative care teams.

We are working with number of prominent healthcare organizations on digital health projects, including remote patient monitoring where we collect & process data coming from a range of

sources, including wearable devices and sensors. This effort seeks bridge the barrier of access by providing care to patients where they are, when they need it. Remote patient monitoring can be used to reach those in underserved areas, connect them to specialists to whom they otherwise would not have access, and using artificial intelligence (AI), help clinicians remain vigilant about treatment-sensitive conditions that, if left undertreated, have a high degree of morbidity.

We are working on even more AI-driven solutions, including communications with patients via intelligent automated systems (chatbots). And we are employing artificial intelligence and machine learning technologies to create “digital twins” that will support the use of precision medicine and enable physicians and other healthcare professionals to provide highly personalized, adaptive treatments to people.

All these initiatives require patients to have broadband access. In some cases, we have had to ship not only the necessary sensors and wearable devices to individuals, but also send internet access devices and mobile phones to people’s homes in order to provide the needed broadband connection.

It is our responsibility to not only recognize broadband access and availability of mobile devices as a super determinant of health but also making actionable steps to deliver these capabilities to people all over the world.

Thank you again for the opportunity to address the WSIS Forum on this vital topic.

WSIS FORUM 2022
Starting on 15 March
Final week 30 May - 3 June

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Bangladesh NGOs Network for Radio & Communication (BNNRC)

Mr. AHM Bazlur Rahman
Chief Executive Officer
BNNRC

Questions:

How do you ensure coverage of disadvantaged and marginalized communities in the vaccination program?
How do you ensure public access to reliable and timely information through Community media for countering infodemic and keeping lives & livelihoods normal?

Missing Statement

Session Eight: Enabling Environment

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/464

Moderated by High-level Track Facilitator:
Mr. Kevin Perkins, Executive Director, Farm Radio International, Canada

WSIS Action Line Facilitator:
Ms. Sofie Maddens, Head, Regulatory and Market Environment Division, BDT, International Telecommunication Union

Speakers:

1. **Namibia**, H.E. Mr. Peya Mushelenga, Minister, Ministry of Information and Communication Technology
2. **Mongolia,** H.E. Ms. Bolor-Erdene Battsengel, State Secretary, Ministry of Digital Development and Communications
3. **Malaysia,** Dr. Fadhlullah Suhaimi Abdul Malek, Executive Chairman, Malaysian Communications and Multimedia Commission
4. **Samoa,** Ms. Gisa Fuatai Purcell, CEO/Regulator,Office of the Regulator
5. **Georgia,** Ms. Ekaterine Imedadze, Commissioner, Georgian National Communications Commission
6. **Cambodia,** Mr. Kimsann Srun, Commissioner, Telecommunication Regulator of Cambodia
7. **Huawei Technologies**, Dr. LUO Zhong, Vice President, Standards and Industry
8. **International Chamber of Commerce**, Mr. Andrew Wilson, Global Policy Director, Permanent Representative to the UN
9. **Tata Communications,** Mr. Troy Reynolds, Chief Legal & Compliance Officer

WSIS FORUM 2022
Starting on 15 March
Final week 30 May - 3 June

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Executive Summary by High-Level Track Facilitator

Introduction

The session focused on regulatory/policy/legislative environments that enable or enhance the development of inclusive ICTs that bridge the digital divide.
We were joined today by 8 experts and decision-makers from 8 different countries, including Cambodia, Mongolia, China, Samoa, Namibia, Georgia, France. Panelists included two Ministers responsible for digital development and information technology, 4 senior leaders of regulatory bodies, one representative from a telecom company, and another from a business association (ICC).
Up to 2 questions for each panelist were gathered in advance of this session. I posed them in turn and invited panelists to share their replies.
We then heard from the Action Line Facilitator, Ms. Sofie Maddens, Head, Regulatory and Market Environment Division, BDT, International Telecommunication Union. who provided the context for this session and how the Action Line(s) is being advanced by the ITU. Following her intro, each of the panelists spoke in turn, responding to the questions that were posed to them.

Vision

An enabling environment at national and international levels is essential for the Information Society. The rule of law, accompanied by a supportive, transparent, pro-competitive, technologically neutral and predictable policy and regulatory framework reflecting national realities, is essential for building a people-centered Information Society. Governments should intervene, as appropriate, to correct market failures, to maintain fair competition, to attract investment, to enhance the development of the ICT infrastructure and applications, to maximize economic and social benefits, and to serve national priorities.

Highlights from presentations - fresh priorities, trends, opportunities and challenges, road ahead:

- Three streams of action are needed to meet the challenge of bringing connectivity to the estimated 2.9 billion people that have never connected, and the many others with inadequate connectivity: increase adoption, through infrastructure development; improve access; increase use - which depends on value creation.
-
-

- Collaboration and partnerships involving all stakeholders, taking a whole-of-Government and whole-of-society approach are key priorities for creating an enabling environment.
- Overcoming the digital divide means a focus on constraints related to gender equality, rural-urban disparities, age, and ability. This means policies and strategies that increase gender equality in ICT access and use, bringing quality and affordable connectivity to rural areas, providing additional supports to the elderly, and provisions for access and use by people with disabilities.
- e-Government - there is great potential and and has been much action and innovation, resulting in improved access to services at lower cost. Moving more services to e-Government platforms highlights the importance of making Internet accessible and affordable so that all citizens can access them
- e-Notification systems can allow people to know when their data is being accessed and allow them to take action. Users can also be given ways to report and give feedback on connectivity and access issues.
- Private investment can be marshaled to meet public connectivity goals - Governments can ensure public benefits through licensing conditions and public contributions in support of private investments in commercially non-viable areas.
- Civil society and communities can and should be systematically engaged through participation, dialogue, advisory groups etc. This helps ensure inclusivity, accessibility, and relevance.
- User education and digital literacy are critical and important areas for government investment and action, particularly for population segments that face greater barriers to using ICTs
- Digital development should serve multiple national development priorities and SDGs - growth leading to poverty reduction, greater economic equality, inclusion, participation etc
- Global collaboration is essential to complete a global deployment of IPv6 , and to avoid the global IPv6 network being reduced into a series of “IPv6 islands”.
- Stimulating the necessary private sector investments in connectivity and digital development in a way that results in a sustainable facility or service over time depends on:
    - Stable, predictable regulatory environment

- Freer cross border data-flow, with safeguards for protecting privacy and personal data
- Whole-of-Government, multi-stakeholder approaches, including private-public partnerships and civil society

- Policies, regulations, investments on evidence pointing to the need for good research and open sharing of learnings

Case Examples

- Malaysia has worked toward universal connectivity, including in "non-commercially viable areas" by: a) making it a condition of licensure to allocate resources to a fund for extending connections to hard-to-reach rural areas, and b) providing public funds to subsidize investments in these areas. There is a 70/30 private/public investment in telecoms infrastructure
- Malaysia has established Pusat Digital Ekonomi Keluarga Malaysia (PEDi) or Digital Economy Centres to narrow the digital divides brought about by infrastructural differences in broadband connectivity, particularly between rural and urban populations. PEDi provides community broadband facilities, a device loan program, and affordable network plans.
- The e-Mongolia Platform now provides 660 government services nationwide. 1.9 million adults have used platform services. $50 million has been saved. Mongolia has developed an e-Notification system through which citizens are notified when their data has been viewed and given an opportunity to report and complain.
- Namibia, as part of its digital development plan and strategy, addresses the issue of e-waste management and cybersecurity.

NAMIBIA

H.E. Mr. Peya Mushelenga
Minister
Ministry of Information and Communication Technology

Questions:

What are the existing policies and regulations that have been implemented to promote ICT development in Namibia?

Mr. Chairman,

Secretary General of the ITU,

Heads of Delegations, Distinguished delegates,

I am honoured to be in the company of industry leaders under the banner of the International Telecommunications Union (ITU) and all other United Nations Agencies. Allow me to thank the ITU for hosting this prestigious event and for the hospitality extended to me and my delegation. It is indeed an honour and privilege for me, on behalf of the Government of the Republic of Namibia, to address you.

To date, Namibia has developed a compendium of laws and policies aimed at promoting ICT development, adoption, and usage. As a country, Namibia is committed to creating an enabling environment for socio-economic development in preparation for the fourth industrial Revolution. Namibia has also made excellent progress in ICT infrastructure development.

Namibia is committed to foster connectivity and our targets for 2025 as entrenched in our country's developmental and national plan, the Harambee Prosperity Plan II are:

- Implement 'Open Access Network' infrastructure sharing regime in a bid to champion Universal Broadband Access by 2025;
- Facilitate a safe and robust ICT ecosystem; and
- Attain 95% Digital Television broadcasting network to all Namibian households.

Namibia is committed to bridge the digital divide by reducing the rural – urban, gender and richpoor disparities. This is embedded into the "Broadband for all" principle. Namibia's 100% coverage project is aimed to stimulate infrastructure development to provide Internet, mobile, and digital television services to all Namibians. Namibia prioritised universal access and service and the three pillars of accessibility, affordability, and quality of service are imperative to support universal ICT services. To this end, the current 3G population coverage is 89% and 4G population coverage is 79% reaching the goal of 80% broadband coverage. The Universal Access Fund will be established before the end of 2022 with the aim to accelerate the roll-out of broadband services to ensure universal access.

The provision of ICT services comes with challenges of cybersecurity and increased e–waste. We are in the process of finalising responsive legal frameworks addressing cybersecurity to ensure safe online services and e-waste management thereby minimising the impact of e-waste on the environment and human health. We are also in the process of securing funding for the establishment of the computer incidence response team, to enhance our cyber security response capabilities. The ICT sector is evolving and requires innovation to unlock opportunities for socio- economic development. We are focused on youth innovation to shape the future and nurture entrepreneurship through the use of ICTs.

Mr. Chairman, allow me to thank the ITU for their continued support in ICT development through your assistance to review the policies and legislation for ICT in Namibia. This process would allow Namibia to make even more progress in the ICT sector and reach the goals as set out by the Namibian government. In conclusion, I wish you all success in these important deliberations.

I thank you.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

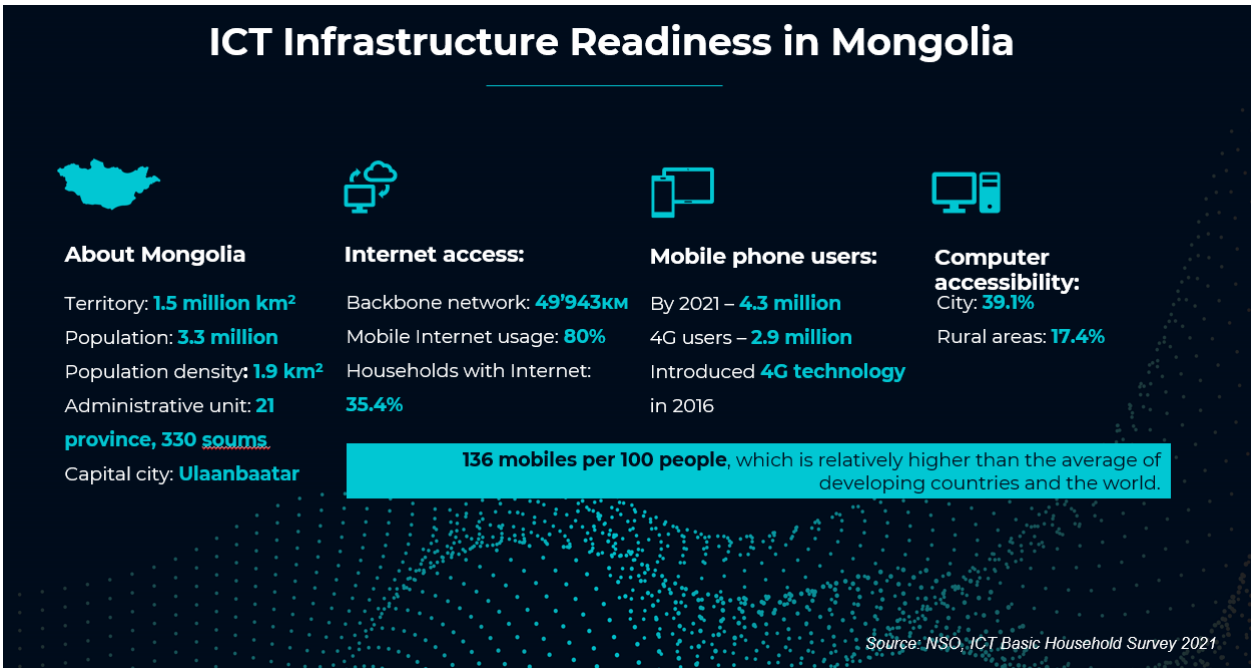
MONGOLIA

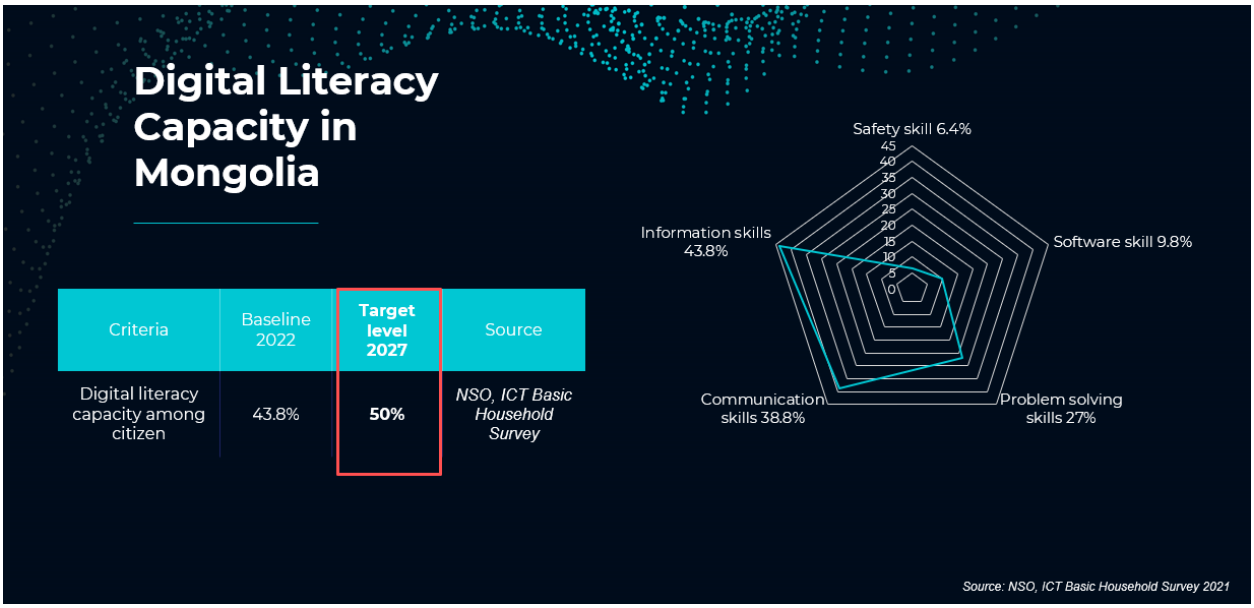
H.E. Ms. Bolor-Erdene Battsengel
State Secretary
Ministry of Digital Development and Communications

Questions:

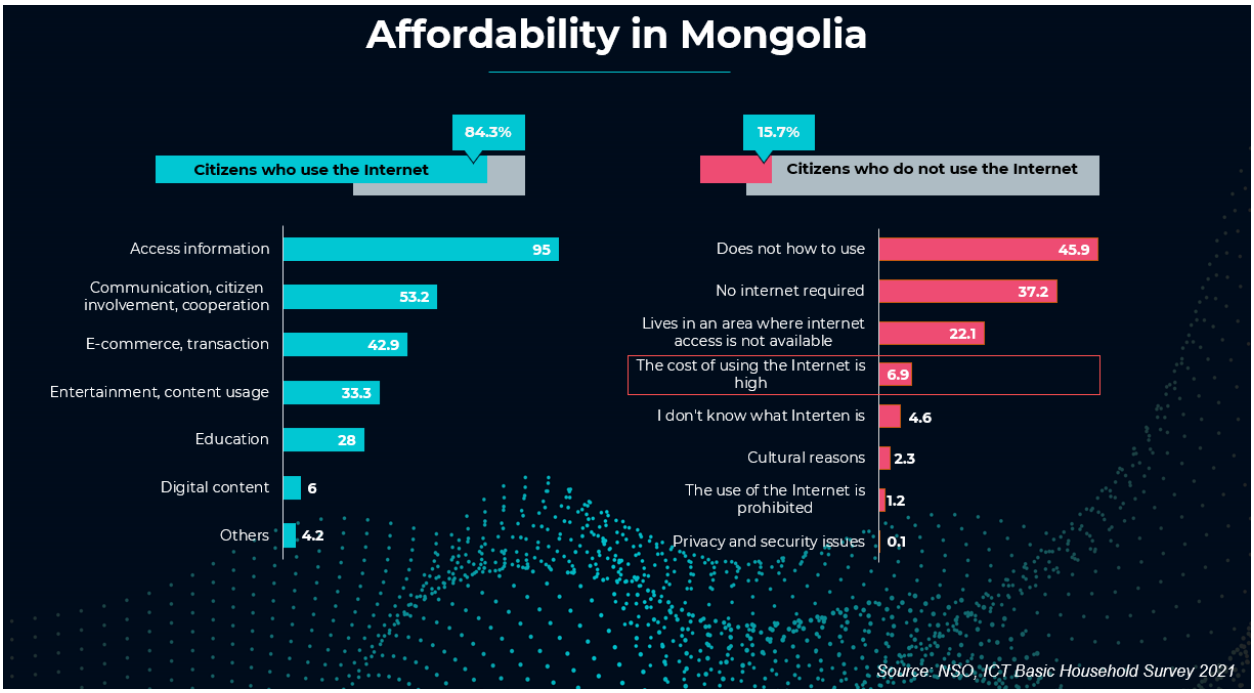
What is the level of e-services and e-transition in Mongolia, and are citizens ready for e-transition?
How can Mongolia, which has a vast territory and remote settlements, improve digital skills of the citizen and eliminate digital divides?

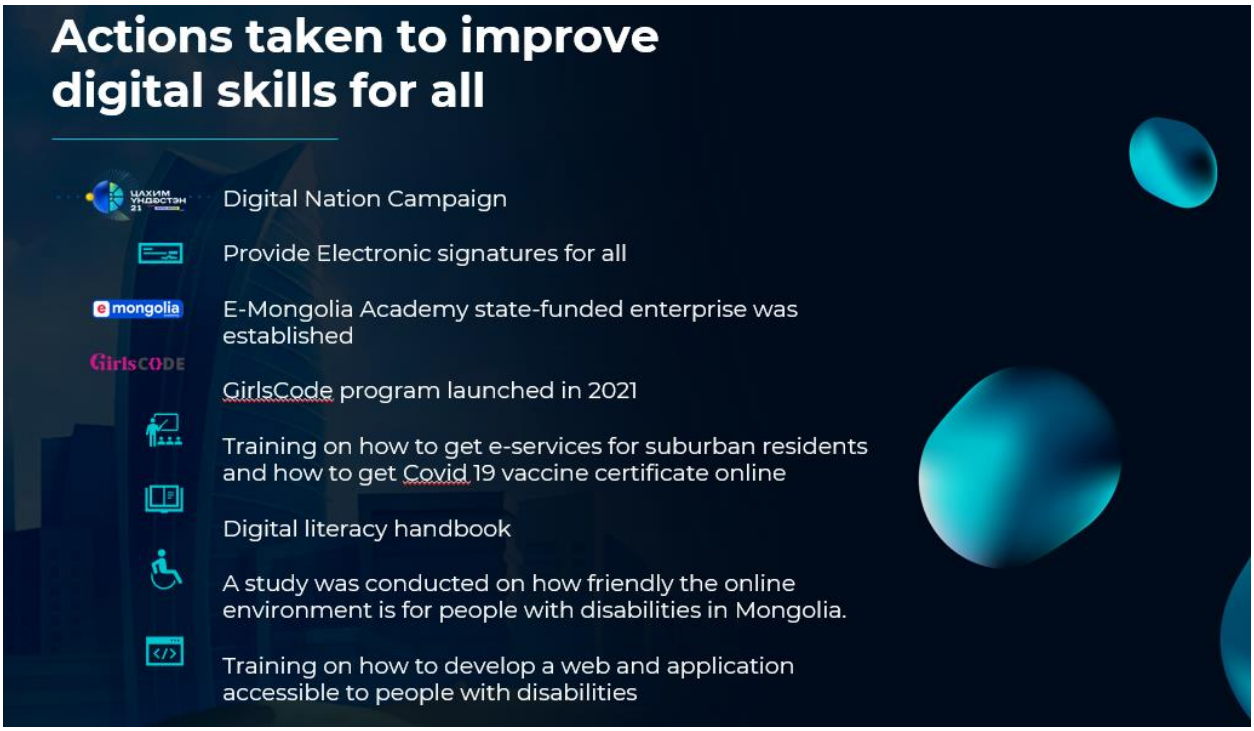
WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

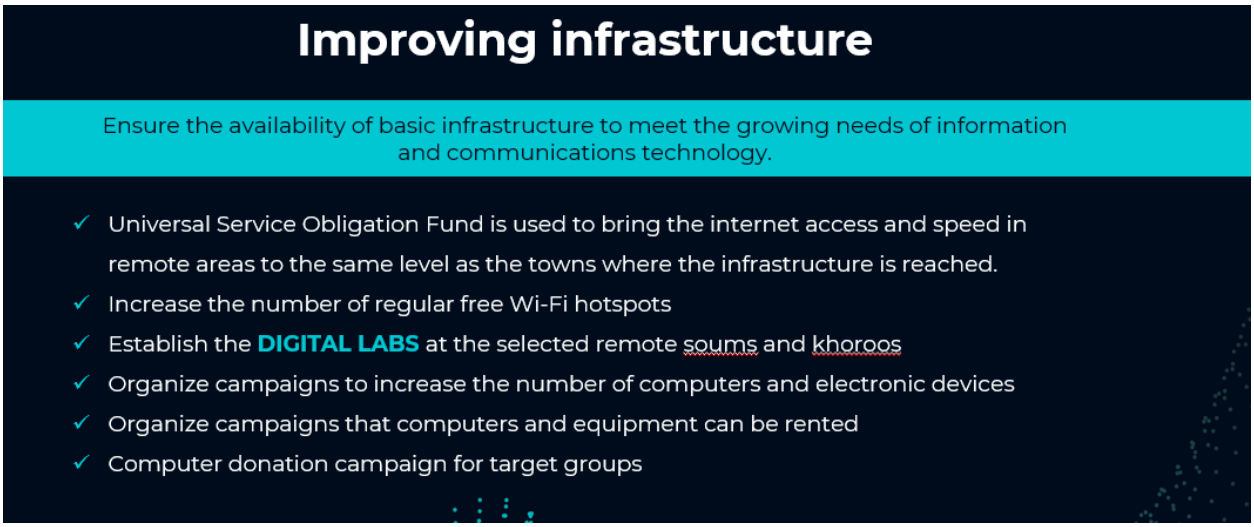




WSIS Forum 2022: High-Level Track Outcomes and Executive Brief






Improving infrastructure
Ensure the availability of basic infrastructure to meet the growing needs of information and communications technology.
✓ Universal Service Obligation Fund is used to bring the internet access and speed in remote areas to the same level as the towns where the infrastructure is reached.
✓ Increase the number of regular free Wi-Fi hotspots
✓ Establish the DIGITAL LABS at the selected remote soums and khoroos
✓ Organize campaigns to increase the number of computers and electronic devices
✓ Organize campaigns that computers and equipment can be rented
✓ Computer donation campaign for target groups


Improving digital skills for all
• National Campaign - 2022
✓ Basic digital skills trainings
✓ Digital skills training for civil servants
✓ Career-related digital skills trainings
✓ Digital skills trainings to people with disabilities
✓ Code writing trainings
• K12 event– e-learning for children from an early age
• Introduce an open education and e-learning system, and create a national database of open learning content
• Increase and empower IT human resources
Partners :
Ministries, International Organizations, Banks, Telecom Operators, Fintech and Edutech companies

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

MALAYSIA

Dr. Fadhlullah Suhaimi Abdul Malek
Executive Chairman
Malaysian Communications and Multimedia Commission

Questions:

How does Malaysia promote balanced investments between public and private sector to improve coverage and quality of service in non-commercially viable areas?

How does Malaysia plan to maximise the economic and social benefits brought about by ICTs particularly by micro entrepreneurs?

Malaysia has always adopted a market driven approach for the telecoms industry. The creation of Universal Service Provider Fund as required in the license conditions creates a common fund to cater for funding in non-commercially viable areas.

With the COVID-19 pandemic, this model was stress tested as demand rose exponentially. We undertook a combined effort by the public, private and civil society in a Lab to produce a national digital network plan known as JENDELA. Here the funding principle is 70% investment from the private sector and the balance from govt (source USP Fund).

We also ensured a consistent policy to create a conducive environment for investment with a national policy of making telecommunications a public utility.

The effort is closely monitored in a problem-solving manner every 2 weeks and the achievement against target, published quarterly for transparency.

As a result, to date, we have 7.1m (out of 9m) fibre passed premises; 95.7% 4G coverage in populated areas, average 4G speeds of 44Mbps (raised from 25Mbps 18 months ago). Expedited rollout of 5G wholesale infrastructure by a year through a single licensed entity to ensure 80% coverage in populated areas by end 2024 (in 3 years); this is wholly funded by the private sector without govt guarantee.

Additional infrastructure such as international connectivity, internet exchanges and hyperscale data centres are all invested by the private sector are also reported on a quarterly basis.

As we expand coverage via the JENDELA plan, we in parallel transformed our internet centres in the community to be Digital Economy Centres known as PEDi. To date we have 911 operating nationwide with a target of having 1080 by end 2022.

PEDi provides:

1. Collective access for internet;
2. Awareness programmes on internet;
3. Capacity building through multiple programmes by us the Regulator and other strategic public and private agencies
4. Creating a device loan programme (10-15 per PEDi) to help those without devices in the community
5. Access to affordable internet subscription packages as well as device ownership packages equally available from all telco providers
6. Bringing the market closer to the community through private sector partners such as popular ecommerce platforms
7. Strong community involvement through Local Advisory Panel for local relevance
8. Having Pick Up and Drop Off services for an extended courier service into the less served areas
9. For micro entrepreneurs, all these efforts target to raise income by 30% within a year of being in the PEDi programmes for digital economy.

Our efforts which begun only 6 months ago have touched 10,000 micro entrepreneurs and 90% have been able to increase their income beyond the 30% target within 4 months of being in the programme.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

SAMOA

Ms. Gisa Fuatai Purcell
CEO/Regulator'
Office of the Regulator

Questions:

You attended the WSIS Prepcoms and the two summits - What was the contribution of your country Samoa?

What do you see as the critical factors of an ICT enabling environment?

Missing Statement

GEORGIA

Ms. Ekaterine Imedadze
Commissioner
Georgian National Communications Commission,

Questions:

What is the role of NRA in building an enabling environment in Telecommunications and Media sectors – addressing specific areas of promoting investment, adequate regulatory environment, and development of a digital eco-system?

How are the quality, affordability, confidence and security objectives set and sustained?

Digital technologies are fundamentally transforming the way we live. Digital infrastructure, applications and services offer important opportunities for boosting economic growth, enhancing communications, improving energy efficiency, safeguarding the planet, and improving people's lives.
National telecommunication policies and strategies by NRAs should enable countries to benefit from the impetus of telecommunications as an engine of sustainable growth, employment creation and economic, social, and cultural development, considering priorities of the local peculiarities, in particular to target access by persons with disabilities and with special needs, as well as telecommunication network security.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

We as Georgian regulatory body responsible for telecommunications and media (broadcasting) sectors have identified our goal to serve as facilitators and enablers in different areas of sector. In creating the enabling layers, we see our role in following directions:

• access to Digital services (the Physical connectivity, quality and affordability layer)
• consumer confidence and trust (the trust layer).

The main elements of enabling access can be summarized in three groups: promoting investment in infrastructure, ensuring adequate regulatory environment, and development of a digital eco-system.

Stimulating investment in digital infrastructure requires an institutional and economic framework that attracts foreign investment, encouraging competition and public-private partnerships. On the negative side, restrictions to the free flow of information and free access to internet are against efforts to reduce the Digital Divide. Barriers to business produce stagnation in the supply of access and decrease the flow of future investments, making it harder to reduce the digital divide.

Further, the facilitating role of the state to reduce the connectivity divide is of vital importance, actively promoting the development of digital infrastructure, with the concurrence of public-private partnership to design, develop and deploy operating models for backbones and last mile networks, that are open access, that share infrastructure and provide public access to facilities.

In this context, I couldn't resist to outline the state program on broadband development and the 'Log-in Georgia' project being implemented with the support of our partners the World Bank and the EIB. As an objective of the project, that envisages different components such as supporting the development of middle mile infrastructure, as well as promotion of the use of digital services through the increase of digital literacy, we aim ensuring that half a million citizens living in almost thousand settlements, including in the highlands, receive access to internet and services such as e-healthcare, education and governance.

Further, our actions/efforts for ensuring affordable Internet include but are not limited to

- Promotion of optimized investments by avoiding duplication of networks, particularly by encouraging infrastructure sharing under different models (mobile virtual network operators, wholesale infrastructure operators both passive and active, final access to ISPs under non-discriminatory terms).
- Generating conditions to separate the layers of digital services from access and transport infrastructure, allowing full competition and diversity for digital services. The infrastructure layer must be neutral, open access and non-discriminatory with respect to service operators.

- Finally, bringing contents closer to users. In case of Georgia, building up on its regional opportunity to become the digital connectivity hub in South Caucasus. Building the in-country

data center and utilizing the submarine digital corridors can result in acquiring different roles, including acting as a point of presence for one or more ISPs and providing physical space where content hosting, cloud services, IXPs and other data services can be located.
Another important aspect is user education through educational campaigns or relevant information services and tools such as benchmarks, contributing to the improved understanding of factors determining the choice of the operator who provides the service by the consumers . This falls under the broader notion of user centered services and we at ComCom have created the dedicated platform – Sheamotsme.ge that provides users in Georgia with tools to checking the quality and raising the issue when concerned.
Finally, having a clear digital development agenda centered on connectivity is of critical relevance, so that ICT enables a more efficient industry, encouraging the growth of SMEs and helps the economy to increase productivity and a Digital Government offering respective services for citizens and business.

Enabling environment to build confidence and security for users.

Having an environment of security and confidence in the use of Internet is key for this platform to be positioned as a cross enabler in Society and the Economy. As a convergent regulator supervising the broadcasting and telecommunications sectors, ComCom has been assigned the role of developing the media literacy among the Georgian society and respective projects we are implementing covering the main elements to build confidence and trust in internet use are:
Placing users in the center. Awareness programs on the Internet and its use, focusing on different aspects such as basic abilities, safety, unlimited opportunities etc. according to age ranges and target groups. It is also necessary to maintain surveys and metrics that unearth preferences and apprehensions of users for Internet access and usage. This is a task necessarily of private public nature.
Child protection online. Preventive programs associated with the educational system and in private public partnership.
Local dialogue on security and confidence. It is necessary to maintain a local dialogue, of a broad character to share positions and views of non-governmental groups and all kinds of actors in these matters.
Finally, we are convinced that digital innovation should not be directed solely towards the formation of wealth but must be oriented to digital inclusion and the promotion of

participatory society. We should engage with the “Internet of People” and social benefits that this entails for improving the quality of life, fostering innovation, growth, and social prosperity.

CAMBODIA

Mr. Kimsann Srun
Commissioner
Telecommunication Regulator of Cambodia

Questions:

What is the current stage of digital infrastructure development for promoting the enabling environment in Cambodia?"

"What digital policies has Cambodia established to enhance enabling environment?

(1) Under the pivotal phase of the digital predominant in human lives, Cambodia has a solid commitment to transforming to become a responsible, accountable, equitable, effective, efficient, inclusive, trusted, and safe digital society. To flourish this salient goal for public and private sectors and individuals, Cambodia has made effort to accelerate and formulate an "enabling environment" to flourish digital well-being and inclusion.

(2) By and large, the country is moving towards digital transformation, and the fundamental requirement is digital connectivity. 19,279 km of backbone fibre optic cable has been built by January 2022 to fiberize all 25 provinces/city nationwide. In addition to the abundant amount of international terrestrial fibre optic cables, Cambodia has been connected to 2 submarine cables, namely the Asia-Africa-Europe-1 cable and the Malaysia-Cambodia-Thailand cable. In 2023, Cambodia will expand its capability and resiliency in international connectivity by landing the 3rd submarine cable from Hongkong.

Looking into domestic development, the Cambodian people are mostly using 4G services, whereas the 4G Mobile Network Coverage is available for 95.7 percent of the population and 74 percent of the land area. With reference to subscriptions, the total number of mobile phone subscriptions is 19,45 million by January 2022, which is equivalent to 115% of the population penetration rate and consists of 81% of the subscriptions of those who access 4G services.

(3) Digital development is a driving force for Cambodia to transform into an innovative and competitive nation internationally. To pave the roadmap and facilitate the digital transformation across the country, Cambodia has adopted several critical digital policies, rules, and regulations.

In May 2021, Cambodia put into place "The Cambodia Policy and Framework on Digital Economy and Society 2021-2035" which envisage building digital citizens, digital government, and digital business via digital transformation to boost sustainable development such as increasing economic productivity, promoting economic diversification, creating jobs, and reducing poverty and social inequality. Eventually, the mentioned digital policy framework was designed for providing better public services to the people by emphasizing the connectivity and modernization of digital connectivity infrastructure networks and developing information technology systems.

Furthermore, Cambodia promulgated the Law on Investment and Law on Public-Private Partnership. The Investment Law has relaxed certain restrictions and created a better enabling environment for investors who want to run a business including digital innovation sectors in Cambodia by offering various incentives and ensuring investment's safety and predictability. On the other hand, Law on Public Private Partnership aims to ease infrastructure investment in Cambodia in strategic sector, particularly digital and telecommunication, through government's financial support and investment incentive.

With the commitment of its digital agenda as a driving force to accelerate the transformation of e-government, e-economy, and e-society, Cambodia is currently drafting some prominent digital documents including:

- National Policy on the Development of Digital Sector 2030
- Draft Law on Cybersecurity,
- Draft Law on the Protection of Personal Data, and
- Draft Law on Cybersecurity.
-

(4) Coming to this end, let me conclude my intervention by saying that developing infrastructure and policy is not enough to boost enabling environment. Elimination of the complexity of the bureaucracy process in the public administrative work, replacing the traditional approach with the digital one which saves cost, time, and environment is an indisputable need. Digital climate improves the efficiency of public services, smart city development, smart agriculture, smart transportation, smart tourism, smart health, smart education, smart finance, smart natural resources and environment, and other economic sectors in the opportunities for the digital industry as well as new digital businesses. In this sense, working across sectors and cooperation between national and sub-national levels needs to be strongly paid attention to.

HUAWEI TECHNOLOGIES

Dr. LUO Zhong
Vice President, Standards and Industry

Questions:

What can be the current role of private sector and the mission of Huawei specifically for Digital Transformation?

What are the most important issues for ICT enabling environment that you are focusing for your participation during this WSIS?

There is no doubt that the world now is facing a very crucial stage with exponential growth in the use of digital technologies and services. This can only be beneficial to humanity if the appropriate and effective polices and regulations are in place. The current matters that are discussed in this WSIS are a good example of the collaboration and crystallization of inputs from around the world. Together we will discuss how to better harness these emerging technologies to tackle the most pressing challenges, and accelerate the achievement of the 2030 agenda for sustainable development.

Private sector plays key role in shaping the world's ICT long-term development, by contributing in leading the way to build infrastructure and policy models to connect the unconnected, and

drive the development of emerging technologies and digital economy, while accelerating the achievement of the UN sustainable development goals.

Huawei's mission is to bring digital to every person, home, and organization for a fully digital, connected and intelligent world. So, we see this WSIS 2022 as a great opportunity to contribute and get involved in the process of developing relevant telecommunications industry polices, leveraging the United Nations Specialized agency for Information and Communications Technologies, the ITU, as the global convening platform for this purpose. Our main objective is providing the right enabling environment for the ICT ecosystem to develop and flourish. We do so by developing and providing carrier and enterprise products, consumers devices and equipment and computing and AI solutions.

We are proud to take part in this World Summit for Information Society (WSIS). A Summit that fosters the achievement United Nations Sustainable Development Goals. And leads the way for fruitful collaborations to develop policies that provide access to digital, safe, and affordable technologies to everyone.

Global collaboration and partnerships are required for addressing the challenges and opportunities arising with emerging technologies such as 5G, AI, IoT, Big Data, and OTTs. This needs further discussions, development, and cooperation.

Digital connectivity and infrastructure are essential building blocks in the digital ecosystem. And we believe that IPv6 justifies some special attention since it is crucial for Broadband connectivity, IoT, multimedia, and other digital services. Since IPv6 adoption today is highly uneven, we see that a global collaboration is essential to act to complete a global IPv6 deployment and avoid the global IPv6 network to be reduced into a series of "IPv6 islands".

Thanks again and we look forward to fruitful discussion and collaboration for this week of WSIS.

INTERNATIONAL CHAMBER OF COMMERCE

Mr. Andrew Wilson
Global Policy Director, Permanent Representative to the UN

Questions:

The International Chamber of Commerce is the institutional representative of over 45 million companies of all sizes and sectors worldwide. What are the main elements of an enabling policy environment for connectivity from the perspective of the global private sector?

What are some of the steps we must take to implement such an environment?

Connectivity has rapidly become one of the most defining features of our everyday lives, the way we study, work, do business, consume content or connect with our communities. Information and communication technologies (ICTs) are also transforming essential social services, such as education and health care, as well as the ways in which people interact with their governments.

In recent years we have seen enormous progress in expanding connectivity and the opportunities it brings across the globe. Today, 94% of the world's population is covered by a mobile broadband network, effectively reducing the number of people living in areas without a mobile broadband network to 450 million. However, even the most generous estimates show that only 63% of the global population (around 4.9 billion) were using the Internet in 2021, with some 2.9 billion people still remaining offline.

Although there continue to be significant increases in Internet adoption, **inequalities persist and will do unless both the coverage and usage gaps are addressed. For this, dedicated and effective actions are needed on both the supply and demand side of connectivity.**
The COVID-19 pandemic clearly showed the value of such connectivity, fostering societal resilience in the face of the crisis, and enabling people to continue their usual economic and social activities during the worldwide lockdowns of 2020. However, this lifeline was only available to those who possessed three key ingredients of meaningful connectivity: robust infrastructure, relevant digital services and effective skills.

It takes more than access to the Internet to fully benefit from the opportunities it offers. An **interoperable, seamless ICT ecosystem** is crucial to help populations reap the benefits of ICT and further development opportunity. Connecting the unconnected is not just about access to mobile, Internet and new technologies. Meaningful connectivity requires access to services and relevant content available in local languages and the skills and capability to transform information into actionable knowledge.

The Broadband Commission estimated that connecting a further 1.5 billion people would require US$450 billion in high-level infrastructure investment. On top of that, further significant investment is needed in capacity-building programmes that increase digital literacy and skills among world populations. Governments alone cannot meet the investment needs and implementation challenges of expanding meaningful connectivity and with it, e-commerce capability. The private sector has been a pioneer and a partner in bridging this gap.

In order to **continue and upscale business investment**, it is important that policy makers understand the means by which the private sector makes investment decisions, as well as how political and regulatory decisions impact the technical functioning of the infrastructure or service. A core problem is that in some parts of the world the business return for building and operating networks, or expanding services does not attract sufficient investment. Businesses might choose to invest elsewhere because the return is better.

“Enabling environment” is not a catch-phrase or a euphemism for deregulation or relaxing of tax systems or consumer safeguard rules. It is really substantially more than that. Ultimately,

an enabling environment is one that stimulates the necessary investments in a way that results in a sustainable facility or service over time. That means a few things must be in place:

1. **First: a stable legal and regulatory environment that:**
   - welcomes new entrants and recognizes ongoing development,
   - values new forms of competition, access to stable financing sources and rates that enable a sustainable return
   - effectively promotes the common goals of digital transformation through education and skilling.
2. **Second: open markets and free flow of data across borders**
   Digital innovations could be crippled without cross-border data flows, fragmentation and increased complexity caused by restrictions significantly complicate global value chains creating burdens and market barriers particularly for SMEs. Compelling public policy issues -- including privacy and security – are of course possible exceptions that may form a legitimate basis for governments to place some limits on data flows. These, however, should only be implemented in a manner that is non-discriminatory, is not arbitrary, is least trade restrictive and not otherwise a disguised restriction on trade.
3. **Third: holistic, whole-of-government approach to policymaking**
   Policies should consider the a multi-layered nature of the digital ecosytem and take a holistic approach that considers economic, technical, socio-cultural, and over-arching governance factors
4. **Last, but probably most importantly: multistakeholder partnerships**
   Close cooperation with business and other stakeholders is beneficial to ensure that implemented policies pave the way for them to maximize opportunities while addressing issues that are relevant locally and respecting local cultural and social norms. An enabling environment facilitates public-private partnerships in implementation of projects, but also considers the views of those required to implement policies from the first moments of policy-creation

When it comes to practical actions and next steps to implement such an enabling environment for connectivity, I would like to refer you to a comprehensive white paper ICC's Global Digital Economy Commission completed recently to discuss the barriers to universal meaningful

connectivity and ways to overcome them. In fact, we launched the paper here at the WSIS Forum earlier this week.

Based on the learnings and strategies derived from the private sector's experience, the paper offers recommendations on three priority action areas. We ground these recommendations in the **basic principle** that **policy and regulatory mechanism should promotes the value of the entire communications and digital services ecosystem**. Furthermore, **policies should be non-discriminatory, technology-neutral, and supportive of innovative business models and the development and deployment of a wide range of technologies, standards, and system architectures**.

We identify the following three areas for priority action:

1. **Facilitate investment across the entire digital value chain**
   Policies should foster investment, competition, and innovation in the development and deployment of broadband services and connectivity devices, with the aim of expanding affordable access and end user choice for broadband connectivity.
   Policies should facilitate investment in and enable the development of content that helps drive and sustain adoption, including through expanded e-government services.
   Governments should also invest directly in digital literacy and skills development, while playing a facilitative and supportive role for multi-sectoral initiatives that meet these objectives.
2. **Effectively manage spectrum**
   Allocation and licensing of spectrum should be transparent, fair, economically efficient, technology-neutral, and aimed at ensuring that sufficient broadband-capable spectrum is made available. Unlicensed, shared, and secondary uses of spectrum should be facilitated, and operators should be incentivised to use spectrum efficiently.
3. **Ground policies in evidence and data**
   Policymaking and regulation should be evidence-based, transparent, inclusive of all interested stakeholders, and aimed at improving the ease and predictability of doing business. Private investments and public funding mechanisms alike should be informed by accurate information and reliable data, including coverage and usage data, but also satellite images, census data and other relevant information that combined can provide detailed understanding ahead of decisions taken on where and how to deploy networks.

TATA COMMUNICATIONS

Mr. Troy Reynolds
Chief Legal & Compliance Officer

Questions:

As you are aware, enabling environment is imperative for the growth and strengthening of the Information society at both national and global level and ICT being a vital tool for enabling such environment, plays an important role. With this thought, we would like to understand from your perspective, the kind of challenges and opportunities which are there for standalone Enterprise Service Providers like Tata Communications in India and other markets globally? How are government and regulators enabling the environment for such service providers as a part of ease of doing business to attract more investments?

The concept of captive private network is evolving globally and with rise in "Internet of Things" "Cloud Computing" "Artificial Intelligence" as part of connected assets, is driving more and more Enterprises across the Industry segments to explore opportunities that dedicated captive private networks can offer complete control to Enterprises over their Operational procedures, better privacy protection of process and production related data and security advantage over a public network. So, what are your views on the role captive private networks can play in enabling environment of growth and productivity for Enterprises in the era of 5G deployments? What kind of policy framework, regulators should adopt to unleash the opportunities offered by Private networks to the Enterprises and Industries to deliver higher levels of economic productivity and sustainable development?

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

We are witnessing accelerated digital transformation of enterprises globally, with businesses shifting focus to furthering investments on digital infrastructure compared to pre Covid-19 era to address business disruptions/continuity issues. In the last couple of years enterprises have learnt the need to be more innovative, adaptive, responsive, and resilient to successfully steer through unforeseen circumstances such as the pandemic. To achieve this, investment in digital infrastructure, especially in advanced wireless technologies as a first building block, is crucial to the success of businesses in this digital era. Digital transformation allows businesses to build platforms, work collaboratively, and create and ride a new wave of digital innovation with automation, private network, M2M connectivity, AR, VR, AI applications, employee safety etc. This improves operational efficiencies, higher productivity, and superior customer experience, enabling borderless growth, boosting product innovation and customer experience, enhancing productivity and efficiency, building agility, and managing risk.

As a global digital ecosystem enabler that powers the digital transformation of enterprises worldwide, Tata Communications unlocks opportunities for businesses with its global expanse and digital-first solutions. Of note, digital transformation of businesses brings with it exponential growth of data consumption globally. Every country in the world is experiencing a boom in data consumption as enterprises and individuals increasingly adopt digital technologies. According to a UNCTAD Digital Economy Report , monthly global data traffic is expected to surge from 230 exabytes in 2020 to 780 exabytes by 2026. Data consumption in India is estimated to grow to 100 million terabytes by 2022 as per PWC report . As it grows, all this data will need to be stored in multiple devices and Data Centers. With more and more Data Centers coming up and presence of global OTT (over-the-top) and CDN (content delivery network) players, it is imperative that the need of faster connectivity services coupled with platform-based solutions would only be increasing thereby creating business opportunities for digitalfirst, internet-first solution providers. Various national governments are also expediting digital adoption amongst their enterprises and citizens. The Government of India (GOI) has taken a number of initiatives with a focus on ease of doing business to accelerate expansion of India's already growing economy towards a "Trillion-Dollar Digital Economy".

• Digital innovations for start-ups and entrepreneurship have also grown significantly in India under the Government's Digital India platform. For example, the JAM initiative (Jan Dhan-AadharMobile) of the Government of India, the enablement of UPI (unified payments interface) payment and availability of digital payment options have created the necessary impetus for

India to become a truly digital economy. Accelerating the penetration in remote locations, GOI has initiated the National Broadband Mission and BharatNet project which aims to provide broadband connectivity and fibre connectivity to each village (Gram Panchayat) in the country. Further, new cable systems are getting deployed to create additional international bandwidth and cater to the growing data consumption in India. We have a significant advantage in terms of our global submarine cables that have been linking all the continents together with network to compete much more effectively in the service provider and OTT market.

• The telecom reforms announced in September 2014 , which were focused on rationalisation of financial liabilities and promoting investment in the sector, is a prime example of this initiative. • Further, the relaxation of BPO services in June 2021 has given a boost to the BPO industry, and they can now leverage companies like Tata Communications to accelerate their digital transformation journey.

• The Government of India is also further working to bring Telecom Reforms 2.0 to lower financial burden coupled with simplification of regulations.

• While governments are taking initiatives to help businesses with digital adoption, each country and jurisdiction comes with its own regulatory and compliance framework. For example, in India, the licensor and sector regulator have initiated various steps recently to enhance the Ease of Doing Business which will help the service providers, including Tata Communications, in ensuring faster network roll outs and simplification of licensing compliance (including license fees). Such steps also include policy change/amendments demonstrating best industry practices at par with global benchmarks.

Globally, Tata Communications is helping enterprises with similar challenges. Enterprises are looking at ways to continue to be flexible and competitive in various markets, expanding services in new markets, focusing on borderless growth of the services while also ensuring the compliance to local regulatory frameworks. As a global network provider, issues related to IP privacy and cyber security is also a factor which keeps challenging the enterprises in various markets. Finally, I would like to emphasise that ease of doing business initiatives play an important role in enabling environment for the growth and strengthening of the information society across economies. These initiatives have created new business avenues for global companies wherein more and more enterprises are seeking integrated digital connectivity solutions and collaboration opportunities within India and across the globe.

The inherent features of private networks, such as enhanced bandwidth, significantly improved latency, unobstructed connectivity, improved security, etc., offer enterprises complete control over their operational procedures, better privacy protection of process and production related data, and security advantage over a public network. Private networks will further usher enterprises in a new era of hyperconnectivity as they aim to innovate and offer uninterrupted connectivity and high-quality experiences to consumers across multiple industries. Various enterprises have been using 5G services, depending upon the various jurisdictions' regulatory framework, to create their captive network or Closed User Group (CUG) for communications amongst their office(s). Even in 4G LTE, many telcos created captive private networks for internal usage of various enterprises while ensuring that public communications happen through their public network and, the captive network remains isolated from the public network. Innovative technologies like cloud, edge, VR, Artificial Intelligence (AI), augmented reality, and IoT have the potential to open various application areas, such as connected cars, enhanced flight operations, advanced healthcare, etc. that require high bandwidth for computational capabilities over a secure network.

Tata Communications MOVE™ platform, is already transforming the way enterprises manage their connected assets globally by offering easy "plug & play" enablement of devices and sensors. The platform abstracts the underlying connectivity complexities, using the optimum connections. As technologies evolve, the diversity of new business models and revenue streams will grow significantly. Connectivity embedded at chip level will increasingly lower the traditional barriers of massive IoT deployment. Tata Communications MOVE™ is a technology agnostic IoT connectivity and data management platform that enables the user to manage the lifecycle of its entire IoT farm and usecases. Accompanied by a device management platform and APIs to configure, monitor, and manage your deployed IoT devices. Tata Communications brings in pre-built applications for multiple manmachine-material use-cases. Tata Communications MOVE™ powers enterprises to deliver personalized user experience through a secure ecosystem:

• Our data insight layer adds value by enabling business specific use cases, enhancing revenue, efficiency, and safety across man-machine-material lifecycle

• We empower businesses to better understand consumer patterns and demands and enhance their services to end-consumers. We combine multi-edge computing and data analytics to power private networks deployed with most optimally distributed architecture

• Our solution employs zero-touch device activation and management, together with zero-trust security, making the network architecture secure, as well as cost and process efficient.

In the automotive sector, a connected car platform addressing connectivity, information management and monetization will enable auto-manufacturers to improve efficiencies across their value chain, while delivering next generation driver experience cutting across safety, infotainment, and Advanced Driver Assisted Systems (ADAS) among others. Further, the use of driver data, AI and data analytics can enable automotive OEMs to solve the complex problem of subscription renewals and enhance the revenue line. Industry 4.0 can bring transformation to how a car is designed, developed, and tested.

The new generation of software defined vehicles can offer a next-generation driver experience by relying on 5G networks for infotainment, Software/Firmware Over the Air (SOTA/FOTA) updates as well as real time Vehicle to Anything (V2X) communication resulting in a safer driver experience. SOTA/FOTA will enable OEMs to deliver engineering fixes and on demand features many of which will be revenue generating for the OEM. Enabling SOTA will impact safety and compliance, around the connected car ecosystem, improving the driver experience and resulting in higher revenues.

We are also elevating the experience of airline customers driven by IoT, AI, AR/VR, automation, and analytics. From smart search for booking best available flights to baggage retrieval – the complete interaction of travellers, airport staff, cabin crew, flights, and airport gets transformed with the convergence of IoT and other advanced technologies. We have been talking about Industry 4.0 for quite some time. Industry 4.0 includes digital transformation of factories to create smart manufacturing, delivering real-time data analytics to enhance the decision-making speed and quality, productivity, agility, and flexibility. We help our customers to improve the productivity of the machines, equipment and devices used in the manufacturing process, tracking, and managing equipment across its lifecycle.

Our healthcare solution covers the life of the machine right from manufacturing, tracking of the device while in transit, patient analysis, diagnosis prescription to end of life of device enabling a 360-degree view of healthcare.

The foundation of 5G network stands on enhanced mobile broadband (20/10 Gbps UL/DL speed), ultra-reliable and low latency communications (1 ms user plane latency), massive machine type communications (1million device/km2). The combination of these three makes

5G the most critical and important technology for deployment of captive private network for enterprises to cater to digitally advanced use cases. 5G technology provides a combination of

communication services which will greatly assist the realization of Industry 4.0's vision resulting in a second industrial revolution.

5G technology and its deployment as an underlying base, along with other cutting-edge platforms based on IoT, AI, Big Data, Edge Computing, Blockchain, will usher the era of Industry 4.0 globally. Private Networks are the business focused Cellular Networks where a dedicated network is built for Enterprise campus wide connectivity for optimizing performance, accountability or guaranteed coverage, efficiency, security, high availability, network flexibility and business agility. The key business drivers for such captive private wireless networks are lack of good network coverage from public mobile network operators (MNOs) at relevant sites such as indoor coverage in large factories, remote areas such as mines and oil and gas sites, on industrial sites such as chemical plants/quarries/ports, islands and offshore facilities, etc. Prospective use cases are numerous and cut across sectors like manufacturing, mining, ports, logistics among others.

Implementation of Private Networks for enterprises can help in developing platforms for Industry 4.0 applications and harness the benefits of upcoming digital revolution. Such global practices can greatly support and accelerate UN Sustainable Development Goals (SDG), in particular SDG 9 to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Session Nine: Inclusiveness, Access to Information and Knowledge for All/WSIS Action Lines and 2030 Agenda/Bridging Digital Divide

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/466

Moderated by High-level Track Facilitator:
Prof. Ke Gong, Immediate past president, World Federation of Engineering Organizations, France

WSIS Action Line Facilitator:
Dr. Marielza Oliveira, Director, Partnerships and Operational Programme Monitoring, Communication and Information Sector, UNESCO

Speakers:

1. **Bangladesh -** Mr. Shyam Sunder Sikder,Chairman, Bangladesh Telecommunication Regulatory Commission
2. **India** - Dr. P.D. Vaghela, Chairman, Telecom Regulatory Authority of India
3. **Mauritius** - Mr. Dick Christophe Ng Sui Wa, Chairman, Information and Communication Technologies Authority
4. **China** - Dr. XIE Cun, Director General, Department of ICT Development, Ministry of Industry and Information Technology
5. **Bangladesh** - Eng. Hasanul Haq Inu, Chairman, Parliamentary Standing Committee for Ministry of Information and Broadcasting & Chairperson, Bangladesh Internet Governance Forum, Bangladesh Parliament
6. **Indonesia** - Dr. Ismail Ismail, Director General, Resource Management and Equipment of Post and Informatics, Ministry of Communications and Informatics
7. **CyberLaw University** - Dr. Pavan Duggal, Honorary Chancellor
8. **Affordable Internet Access**, SIG - Mr. Ernest Mafuta, Chair

WSIS FORUM 2022
Starting on 15 March
Final week 30 May - 3 June

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Executive Summary by High-Level Track Facilitator

The WSIS 2022 High Level Policy Session 9：Inclusiveness, Access to Information and Knowledge for All / WSIS Action Lines and 2030 / Bridging Digital Divide has been successfully hold online on June 1, 2022. With the common aim to build a people-centered, inclusive and development-oriented Information Society for all, WSIS Action Line Facilitator, Dr. M. Oliveira of UNESCO and 8 panelists from the government's departments, public sector and academia joined online to share how WSIS action lines and 2030 agenda are implemented to achieve inclusive access to information and knowledge for all, with good practices and opinions on pressing challenges and fresh priorities to bridge the digital gap and connect the unconnected. The panelists are:

- Mr. Shyam Sunder Sikder (Chairman, Telecommunication Regulatory Commission, Bangladesh)
- Dr. P.D. Vaghela (Chairman, Telecom Regulatory Authority of India, India)
- Mr. Dick Christophe Ng Sui Wa (Chairman, Information and Communication Technologies Authority ICTA, Mauritius)
- Dr. XIE Cun (Director General, Department of ICT Development, Ministry of Industry and Information Technology, China)
- Eng. Hasanul Haq Inu (Chairman, Parliamentary Standing Committee for Ministry of Information and Broadcasting & Chairperson, Bangladesh Internet Governance Forum, Bangladesh)
- Dr. Ismail Ismail (Director General, Resource Management and Equipment of Post and Informatics, Ministry of Communications and Informatics, Indonesia)
- Mr. Ernest Mafuta (Chair, Affordable Internet Access SIG, Zambia)

The session is moderated by Dr. Ke GONG, past president of World Federation of Engineering Organizations

The panel recognizes the contribution of ICTs for allowing people to access information and knowledge especially during lockdown period in the pandemic to maintain production and social services and help to fight the COVID. However, it is also seen a new kind of connectivity gap has been created exposing fissures between the connected and the unconnected and their potential to play a role within the global economy.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

In the past years, great efforts have made to bridging the digital divide. For example, Bangladesh has introduced 'One Country One rate' for the broadband services so that every people, even people in the rural areas, are not discriminated with higher price. India has taken series of measure to provide connectivity, affordability and accessibility, among others, India has robust Right of Way (RoW) rules to roll out the digital infrastructure. A national portal, to facilitate the RoW Application Process through a single interface for stakeholders like Central and State/UT Government(s), Local bodies, and Service Providers is available. By far, Indian telephone subscriber has increased to 1.17 billion, 80 times since 1997. Mauritius is made up of several islands scattered in the Indian Ocean such as Rodrigues and Agalega by using comprehensive technologies including satellite and undersee cable as well as mobile communication, with help of Universal Service Fund established by the government. China implements a moderately forward-looking technical strategy for deploying its 5G network, which has now more than 1.5 million base stations reached more than 400 million users, and China has got all villages across the country connected by broadband for the first time in history, and basically achieving the "same network and same speed" in both rural and urban areas.

Although the significant progresses, much more need to be done.

The panel stresses that to further close the gap, efforts should be made on both hard and soft side. The hard one is mainly about network infrastructure and smart access devices, when introducing 5G and integrating it with fiber and satellite transmission to provide broadband and telecom access as a basic need for personal, educational, social and economic growth, it must ensure all people should be covered, including the areas with natural barriers or lack of financial capacity. The soft one is mainly about digital literacy and capacity with special attention to vulnerable and marginalized populations, as well as women and youth. Other soft issues have also been mentioned, such as the lack of proper contents to attract individual users, and the necessity of standardization. it is appreciated the effort made by ITU on standardization of the "digital transformation for cities and communities".

The panel points out that Public Private Partnership of importance to the sustainable development of ICT development and information service to be affordable to all. In addition, international collaboration is absolutely the key for build back better with inclusive access to information and knowledge.

The panel calls for more efforts from government, private sector and academia to build a better digital ecosystem with ubiquitous network penetration with proper digital literacy and skills of all people, while preventing erosion of the freedom of expression and the expose disinformation and misinformation, supported by proper governmental policies and international cooperation.

The panel identifies that digital security is a growing challenge to the information society, global efforts should be made to ensure a safe and secure and meaningful access.

The panel recommendations:

- to create a digital transformation towards future-proofing society and creating a more digitally literate, adaptive culture where affordability and access are the norm. It is through this resilience and framework of the ITU leveraging on information communication to close the digital divide gap that the sustainable development goals can be better achieved for a more connected world accessed by all.
- to encourage government sectors to use evidence-based approaches, which can help bridge the partisan divide and support research-based debate about what outcomes we want to achieve for minimizing digital divide and inequality.
- to establish an international consortium of cyber security, especially on International Cyber Security Law. Cyberattacks and breaches of cybersecurity has increased a lot and concern the governments and the public. There is no international cyber security law in place and different countries have in place their own distinctive national laws on regulating cyber security. So the need for accepting universal principles impacting regulation of cyber security becomes the order of the day.

BANGLADESH

Chairman
Bangladesh Telecommunication Regulatory Commission

Questions:

What do you think is the reason of the digital divide, specially what are the challenges in terms of accessibility, affordability, and open access to knowledge archive in the developing countries and what do you suggest overcoming these?

What are you doing in Bangladesh to bridge the digital divide? What lessons other developing countries can take from the experience of Bangladesh?

I think, the reasons of the digital divide, as of broad head are:

1. Poverty: poor financial conditions of citizens
2. Lack of connectivity: for natural barriers or lack of investment
3. Lack of proper contents to attract users
4. Lack of availability of smart devices and ICT literacy in the rural areas
5. Absence of affordable network/ internet

According to ITU data, still only 44% of people are using the Internet in developing countries (87% in developed countries). Though almost all urban areas in the world are covered by a mobile-broadband network, a low number of households are connected with internet in rural

areas (38%). In LDCs, 17% of the rural population live in areas with no mobile coverage at all, and 19% of the rural population has no coverage of even mobile broadband.
Now, when we are introducing 5G and almost all the governments have agreed broadband and telecom access as a basic need for personal, educational, social and economic growth, we must have to address this gap.

The lower ARPU in the rural area discourages the operators to invest for telecom and broadband network. Government's effort is required for equalizing infrastructure development and economic activities. In Bangladesh, government has been implementing some projects for connectivity.

Secondly, despite the governmental efforts to make public services available online in the most convenient manner, there are lack of proper contents to attract individual users to broadband network in the rural areas.

Thirdly, there is still limited penetration of smartphones in the rural areas. This is related to the first two factors to certain extent. But also, the ICT literacy and comfort of certain group of rural people plays good part for this low adoption rate. In Bangladesh, BTRC so far has given permission to sixteen Companies for manufacturing mobile handsets and now here people can get it almost within their reach.

And lastly, unless there is subsidized network built by the government, affordability is a problem in most of the rural and remote areas. It forces many people to use the broadband service in shared manner and they do not feel the requirement for possessing a separate equipment for themselves. Similarly, many people use the common access points for fixed broadband and cannot afford it at their household.

We have been continuously addressing all the challenges in bringing every citizen under broadband network. Firstly, we should make the broadband service affordable for all and therefore, we have introduced 'One Country One rate' for the fixed broadband services so that every people, even people in the rural areas, are not discriminated with higher price. We have worked a lot including the discussion with backbone service providers to ensure this uniform tariff rates.

We worked with the mobile operators for making the mobile broadband packages more user friendly and transparent and as a result, recently overhauled the whole mobile internet service scenario including timeless data packages.

Secondly, we have been working to make smartphones more affordable to the rural population. In addition to providing incentive for local manufacturers, we have planned alternative means in collaboration with MNOs so that people can buy smartphones more easily and with less one-time financial commitment.

Thirdly, we are continuously trying to improve the experience of the users in using broadband services. We are trying to indicate areas through Drive-test where network needs to be enhanced and directing operators to develop or improve network coverage within given benchmarks.

Also, we are addressing the tower-installation issue in the border area where a significant portion of the population live. Due to the recent decision, many people living in those border districts would be able to enjoy quality mobile broadband services.
Next, we have been building robust and redundant fiber backbone network up to the lowest administrative units. The government has invested a lot, but we also need to work with the private operators so that such network is built with sustainability in terms of connectivity and redundancy.
Also, we need to avoid duplication of effort and proper business case needs to be ensured so that cost is reduced, and networks are utilized efficiently.

For quick and efficient implementation of all these plans, government sectors must be strengthened through the use of evidence-based approaches. Evidence-based policymaking can help bridge the partisan divide and support research-based debate about what outcomes we want to achieve for minimizing digital divide and inequality.

And lastly, we all need to work more in a collaborative manner. It's not only the government, but the private sector also should come forward with people oriented and localized content that will create demand for using broadband services for people in the rural areas. If we become successful in these efforts, I am confident that we can easily and quickly bridge the digital gap across economic classes and regions.

INDIA

Dr. P.D. Vaghela
Chairman
Telecom Regulatory Authority of India

Questions:

How is India accelerating the pace of adoption of digital technologies?

The latest technologies are making transformative changes in society. How are you ensuring that these technologies help in Digital Inclusion?

India has undertaken various initiatives and measures to foster the use of digital technologies.

By providing **Ubiquitous connectivity, making digital technologies affordable and ensuring access of these technologies**

1. **Ubiquitous connectivity:**
    a. India has robust Right of Way (RoW) rules to roll out the digital infrastructure. A national portal, to facilitate the RoW Application Process through a single interface for stakeholders like Central and State/UT Government(s), Local bodies, and Service Providers is available. Many state govts also have deemed approval provision.
    b. The Government is implementing 'Connect India' as one mission under National Digital Communication Policy–2018 to connect rural areas with a motto of "a Digital Future to All".
    c. BharatNet project to provide broadband connectivity to all the six hundred thousand remote villages across India by an optimal mix of media like underground OFC, Aerial OFC, Radio and Satellite.

d. Universal Service Obligation Fund (USOF) is successfully being used for the creation of telecom infrastructure in unconnected remote areas like islands, hilly, and forest areas.

2. Affordability:

a. India has a policy framework for sharing of infrastructure at all levels to minimize the costs of infrastructure for the provision of digital services.

b. Going forward, Collaboration among regulators to co-create and share infrastructure is promoted. A lot of projects by the Railway, and power grid have come up. Power companies have started sharing poles for aerial fibers which now is converted into a formal framework. TRAI has started collaborating with infrastructure regulators dealing with power, ports, airports, smart cities, and highways through various forums & Joint committees for creating and sharing street furniture for 5G.

3. Accessibility:

a. Apart from the measures adopted to improve connectivity and affordability, we have a very light-touch regulatory framework that promotes competition and wide accessibility of services and that has also resulted in one of the cheapest Telco services in the world.

b. Government of India implemented interoperable Prime Minister's Wi-Fi Access Network Interface (PM-WANI) framework for the proliferation of public Wi-Fi hotspots through innovative PPP models for improving last-mile access.

c. Digital India, a flagship program of India with a vision to transform India into a digitally empowered society has allowed all the vertical ministries, state governments and local bodies to come out with innovative apps to provide services to the citizens online. More than 4 Lakh Common Service Centers (CSC) provide easy delivery of services, DBT and online access to market and banks in especially rural areas.

d. PM's Rural Digital Literacy mission (PMGDISHA), was launched to train rural households for basic digital skills. 40% of rural households are already covered.

4. These measures have led to significant digital inclusion.

a. The telephone subscriber base has increased to 1.17 billion, 80 times since 1997.

b. The Internet subscriber base has reached to 829 million.

c. Data usage has increased to 15 Gigabytes per subscriber per month, from a mere 0.3 Gigabytes in 2014.

d. In the last five years, rural internet subscribers increased to 333.10 million, showing a growth of 152% against 58% in urban areas.

e. The data tariffs have fallen to around USD 0.13 per GB in 2021 as against the global average of USD 8.53 per GB.

Now coming to the second question, normally it is said that introduction of new technologies may result in the exclusion of people on the edge. However, through planned intervention in form of forward-looking regulations, new technologies can actually be used to accelerate digital inclusion.

1. For example, the Implementation of our recent recommendations on 5G services will create new avenues for all the vertical sectors. TRAI has recommended the creation of an intermenstrual group and cells in all vertical ministries. The ministries will prepare plans and make budgetary provisions to increase affordability, accessibility, and connectivity for their stakeholders. The ministries create platforms for start-ups for identification and propagation of cost-effective use cases.
2. TRAI has recommended Satellite-based connectivity for low-bit-rate applications which will help sparsely populated areas with important economic activities.

3. Also, based on our recommendations, policy framework on M2M and IOT services has been issued which will encourage smaller players in the whole ecosystem and bring down the costs thereby making services more affordable. Also, we are examining the possibility of broadband thru satellites to provide 5G connectivity in hilly and far-flung areas.

4. Smart devices coupled with new applications and Fintech are leading to the proliferation of online delivery of services both by government and private players even in rural and remote areas. The rural area users including hawkers, farmers, and artisans have now access to market pricing and can find out the prices of various commodities & inputs with the help of mobile phones and applications.

5. As part of Digital India program, India developed a user-friendly cost-effective Universal Payments Interface (UPI). This has transformed the way Digital Payments in India are made with the inclusion of Lower sections of the economy. I am glad to share that during a single month of April 2022, 5 billion transactions worth nearly 900 Million USD were performed. Now, India is helping many developing nations for the adoption of these types so flow cost solutions.

6. TRAI was a pioneer in use of Blockchain technology for curbing spam and unsolicited messages through an innovative cost-effective PPP model which is very successful.

7. India has taken several steps through policies and programs such as PLI (Production Linked Incentive) for the development of an affordable device ecosystem including mobiles in India which will certainly help in digital inclusion of end-to-end services.

MAURITIUS

Mr. Dick Christophe Ng Sui Wa
Chairman
Information and Communication Technologies Authority

Questions:

How do Mauritius and the ICTA promote digital inclusiveness and tackle the constraints/challenges of the digital gap in Mauritius?

What are the main pillars of the ICTA's regulatory action to embark on digital transformation strategy towards digital inclusiveness for Mauritius*?*

In a spirit of digital inclusion, the ICT Authority of Mauritius, under my Chairmanship, has engaged into a number of concrete actions to bridge the digital divide in Mauritius. In this endeavour, we fully align with the tagline of the World Telecommunication Development Conference being held soon in Rwanda 'Leave no one behind'. As we are here to serve the nation and to serve the country, we have to offer an essential service emanating from strategy, innovation, inclusion and good governance.

In my view, the best way to deliver as an ICT regulator is to come up with tangible outputs through specific projects for the consumer, level playing field measures for the operators as well as the implementation of measures of Government policy and tendering of advice to the policy maker on ICT regulatory issues. With this in view, the ICT Authority has been funding a variety of projects under its Universal Service Fund (USF) in order to foster digital inclusiveness

for all citizens. Indeed, the Universal Service Fund (USF) is one of the key financing mechanisms used to connect the unserved and underserved areas where there is neither the density nor the capital for telecom operators to justify private sector infrastructure investments.

The Universal Service Fund is managed by the Authority in line with international trends to make universal services more specific by targeting the real needs of the underserved. Establishing and managing the Universal Service Fund is a statutory duty of the ICT Authority of Mauritius, under the Information and Communication Technologies Act 2001. The role of the USF embodies the commitment of the ICTA to enhance digital inclusion in a rapidly evolving ICT environment through the concerted efforts of social regulation.

The Republic of Mauritius is made up of several islands scattered in the Indian Ocean. The two main inhabited dependencies are Rodrigues and Agalega. Rodrigues, which is the main dependency, is located at about 560 km east of Mauritius, and has a population of around 42,000 people. Agalega is located about 1000 km north of Mauritius and has a population of around 300 people.

The Authority has in 2012 acquired a 118 Mega bit per second satellite connection between Mauritius and Rodrigues through the Universal Service Fund. This capacity was increased in 2013 through the acquisition of an additional 45 Megabit per second connection.

In 2017 the satellite capacity between Mauritius and Rodrigues had reached 425 Megabit per second. Now it is to be noted that Rodrigues is served by an undersea cable which connects the island to Mauritius. Satellite connectivity has also been provided between Mauritius and Agalega as well as a mobile network which has been set-up on the Island through the USF as from 2017. The Authority is also funding the setting-up and operation of digital service centres in post offices around the island. This service allows those visiting post offices to access the Internet free of charge.

The latest project of national importance implemented by the ICTA is the Free WiFi Zone project across the country. It was successfully launched last week in the village of Chamarel in the South of the island of Mauritius, under the aegis of the Prime Minister of the Republic of Mauritius. This project emanates from a governmental decision to set-up Wi-Fi facilities, free of charge for the public, in major public areas such as traffic centres, hospitals, municipalities and district councils with the aim of reducing the digital divide and further promoting connected communities. This project of Free WiFi Zone throughout the country is also funded under the

Universal Service Fund, managed by the ICT Authority and to which operators in the ICT sector contribute.

In June last year, the ICT Authority, in pursuance of its objects under section 16 of the ICT Act, carried out a procurement exercise to invite the submission of proposals from holders of an internet service licence to make available free Wi-Fi Service to all users at the 234 identified sites in both Mauritius and Rodrigues. All the 234 sites of the Free WiFi zone project are now planned to be fully operational by October this year. The launching of the project in the remote village of Chamarel has a lot of significance and testifies the determination of the Authority to ensure that the remote villages of our country are not left behind in the hyperconnected world where more and more services are now primarily available online.

Strengthening the regulatory framework in the ICT sector of Mauritius is therefore one major challenge that has been successfully tackled by the ICTA under my chairmanship as a necessary backbone of digital inclusiveness in Mauritius from the regulatory point of view. Of course, this policy has to be supported and developed into a number of pillars.

In terms of its regulatory actions, the ICT Authority of Mauritius has been working hard to keep the sector growing and at the same time ensure its proper regulation. Over the period 2020 to 2021, despite the pandemic, broadband Internet subscriptions in the Republic of Mauritius increased from 1.6 million to 1.7 million and mobile subscriptions increased from 1.9 million to nearly 2 million, for a total population of 1.26 million people.

The Authority has also embarked in reforming its licensing as well as USF contribution regimes. USF contribution is currently still based on roaming and incoming international calls revenues. These two revenue streams are seriously at stake with the advent of calls made via Over The Top (OTT) applications. Hence the Authority has made recommendations for revamping the mode of contribution.

As regards the licensing regime, a modernisation has been long overdue. We are currently working with the policy maker to ensure that the investment momentum in the sector is not jeopardised. Under my mandate, I have been giving special attention to the collaborative role the ICT Authority has to play in its environment, both internationally and locally. As such, the Authority has at heart to work with international regulators as well as local regulators from other sectors. Locally, working relationships are well established with the Independent Broadcasting Authority and the Competition Commission, and the Authority has recently signed an MoU with the Bank of Mauritius.

At international level, the Authority has recently signed MoUs with the ICT Regulators of India and Comoros. We are looking forward to signing more agreements of this type with the French regulators with which discussions have been engaged during a visit which I recently made in France. And we are planning to develop cooperation with regulators of the African continent. Satellite and 5G connections are also major areas where the ICTA is involved in support of the digital transformation of the country.

As the 5G holds a promise for many sectors to innovate and progress, drive investments and bring essential technologies and services to more citizens, the ICT Authority of Mauritius has been proactive in issuing 5G licences to the three mobile national operators. The ICT Authority of Mauritius has also been actively working together with other members of the SADC and ATU to obtain new satellite positions in space for Mauritius. This will enable Mauritius in the future to have its own satellite in space. In its endeavour to support the digital inclusiveness strategy for the Republic of Mauritius, the ICT Authority has been tasked with fulfilling and balancing the stakeholders' expectations against a backdrop of technological and service convergence, in order to sustain a healthy development of the ICT sector.

The whole mission of the ICT regulator of Mauritius is therefore geared towards ensuring that the benefits of any measure implemented in this sector percolate effectively to the Mauritian citizen in the spirit of digital inclusion.

CHINA

Dr. XIE Cun
Director General
Department of ICT Development, Ministry of Industry and Information Technology

Questions:

Could you please introduce the development of 5G in China and what relevant measures will be taken to promote 5G deployment in the future?

Could you please introduce how China has bridged the digital divide, to achieve broadband access to all administrative villages and provide universal ICT services for all?

China continues to improve the network capacity in a moderately forward-looking manner. At present, all prefecture-level cities in China have been covered by all-optical networks. 93% of the broadband subscribers enjoy an Internet speed at or above 100Mbps. 1.55 million 5G base stations have been deployed across the country. 5G networks have covered all prefecture-level cities, all urban districts of counties and 87% of township areas.

The 5G subscribers have achieved 403 million. China has already launched eight pilot projects of universal telecommunication services, getting all the administrative villages across the country connected by broadband for the first time in history, and basically achieving the "same network and same speed" in both rural and urban areas. China is committed to providing people with

"accessible, affordable and high-quality" information services, which has contributed to the national efforts of getting nearly 100 million poor people in rural areas out of poverty.

China is actively promoting the innovative applications of 5G, with an approach to "promote 5G construction through 5G applications, and advance 5G construction and applications simultaneously", which greatly empowers the transformation and upgrading of traditional industries. Enabled by the new-generation information technologies such as 5G, IoT, and AI, China strives to empower the digital transformation of manufacturing and other industries and create strong engines for economic recovery. China has already held four "Bloom Cup" 5G Application Competitions, attracting the participation of over 20,000 projects from different fields, including manufacturing, transportation, etc. The 5th "Bloom Cup" 5G Application Competition has already launched, with the addition of an international track, open to the active participation worldwide.

China continues to promote inclusiveness of ICTs and improve their affordability. China has actively used ICTs to improve the governance capacity and modernization level of the government, and effectively improved the efficiency and convenience of public services by relying on digital government, e-government and "one-stop online service". For people with specific needs, such as rural households living in poverty and people with disabilities, China is carrying out the targeted tariff reduction project to improve the affordability of telecommunication services. At the same time, China actively promotes the age-friendly transformation and accessibility of telecommunication services to enhance the inclusiveness of the ICT industry.

XIE Cun said that China would build a closer partnership with all parties under the WSIS cooperation framework to further promote network construction, enrich digital applications, enhance information inclusiveness, and create an open environment for the development of the digital economy so as to achieve sustainable development goals (SDGs).

BANGLADESH

Eng. Hasanul Haq Inu
Chairman, Parliamentary Standing Committee for Ministry of Information and Broadcasting &
Chairperson, Bangladesh Internet Governance Forum

Questions:

How do you ensure Inclusiveness and Access to Information in achieving SDGs/2030 Agenda in Bangladesh?

How do you play a role in Bridging the Digital Divide as chairperson of the Bangladesh Internet Governance Forum and Chairman of the Parliamentary Standing Committee for the Ministry of Information and Broadcasting?

Missing Statement

INDONESIA

Dr. Ismail Ismail
Director General
Resource Management and Equipment of Post and Informatics, Ministry of Communications, and Informatics

---

Questions:

What are the strategies of Indonesian Government to bridge its digital divide?

What has the Indonesian government accomplished in overcoming the digital divide issues?

Missing Statement

CYBERLAW UNIVERISTY

Dr. Pavan Duggal
Honorary Chancellor

INTERNATIONAL CYBER SECURITY LAW CONSORTIUM

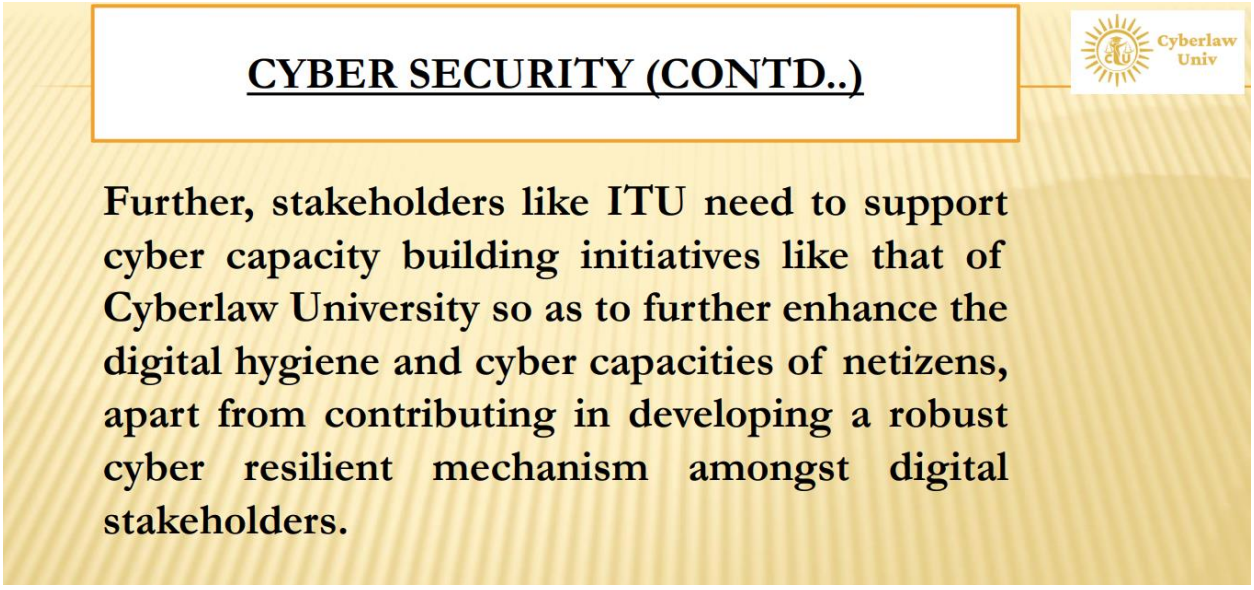
- At the ITU WSIS Forum 2022, I propose that the world should work towards the International Cyber Security Law Consortium ,which can be powered and supported by the ITU.
- Through this Consortium, the current experiences of regulating cyber security can be appropriately analyzed and wisdom thereof can be disseminated to nation states and non-state actors, so that there is harmonious uniformity in national, regional and local approaches on the regulation of cyber security.

CYBER SECURITY (CONTD..)

- This is all the more important to ensure that in the coming times, nations are not divided in the form of haves and have-nots concerning cyber security regulation.
- Large number of nation states today are clueless on how they need to regulate cyber security.

CYBER SECURITY (CONTD..)

Collation of international best practices, common minimum standards and acceptable principles by the International Cyber Security Law Consortium can be a good starting point for serving the interests of all nation states and for the purposes of ensuring a harmonious evolution of cyber security law jurisprudence in the coming times.


CYBER SECURITY (CONTD..)
Cyberlaw Univ
Further, stakeholders like ITU need to support cyber capacity building initiatives like that of Cyberlaw University so as to further enhance the digital hygiene and cyber capacities of netizens, apart from contributing in developing a robust cyber resilient mechanism amongst digital stakeholders.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Affordable Internet AccessSIG

Mr. Ernest Mafuta
Chair

Questions:

How will affordability in digital transformation make the world a better place post covid-19？

What is the future of affordable and meaningful access post covid-19 for future proofing our society to building a more resilient economy and achieving the Sustainable Development Goals?

Missing Statement

Session Ten: Digital Economy and Trade/ Financing for Development and role of ICT

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/467

Moderated by High-level Track Facilitator:
Ms. Emily Middleton, Partner, Public Digital, United Kingdom of Great Britain and Northern Ireland

WSIS Action Line Facilitator:
Mr. Torbjörn Fredriksson, Head of E-Commerce and Digital Economy Branch, UNCTAD

Speakers:

1. **Ethiopia -** H.E. Mr. Belete Molla Getahun, Minister, Ministry of Innovation and Technology
2. **Mali -** H.E. Mr. Maitre Harouna Mamadou Toureh, Minister
3. **Lithuania** - H.E. Ms. Eglė Markevičiūtė, Vice Minister, Ministry of the Economy and Innovation

4. **Nepal -** H.E. Dr. Baikuntha Aryal, Secretary, Ministry of Communication and Information Technology
5. **Germany -** Dr. Thomas Zielke, Director, Head of Division, Office for National and International Standardization Policy and Patent Policy, Ministry for Economic Affairs and Climate Action
6. **UNIDO** - Dr. Bernardo Calzadilla Sarmiento, Managing Director of UNIDO's Directorate of Digitalization, Technology and Agri-Business

Executive Summary by High-Level Track Facilitator

Introduction

The session focused primarily on digital trade, as well as the growing importance of the digital economy, at both the national and international levels. Participants also touched on the need for more and better financing for development, especially for connectivity infrastructure. The panel featured a broad range of perspectives: from Ethiopia, Mali, Lithuania, Nepal, Germany, UNIDO and UNCTAD.

Definitions and scope

The WSIS Action Line Facilitator from UNCTAD defined digital trade as being “digitally ordered (e-commerce) and/or digitally delivered”. Several panellists conceived of digital trade more broadly, and discussed how digital transformation is changing the nature of trade, and the possibilities of using data and digital technologies to improve cross-border trade.

Similarly, several respondents pointed out that the digital economy is no longer limited to the ICT sector, but cuts across all parts of the economy. Every sector relies on the internet, and can thrive on the internet – under the right conditions.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

Common themes

Despite the breadth of the session topics, three themes emerged across the presentations.

First, the importance of data and data analytics: as a means of enhancing trade, for example by improving access to information about supply chains; and as an opportunity to create new value-added services, thereby contributing to economic growth.

Second, the need for closer international collaboration to help more countries unlock the benefits of digital trade, and level the playing field. This included the potential benefits of international standards and rules for digital trade; and for improving cross-border digital infrastructure, such as for digital payments.

Third, connectivity and digital literacy as fundamental enablers to a flourishing digital economy and trade. Without reliable internet access (including in remote areas), and digital skills, not everyone can participate fully in digital trade and in the digital economy.

Opportunities

A number of specific opportunities were cited. These included the use of newer technologies to improve supply chains – for instance advanced data analytics and artificial intelligence to enable automation, and blockchain to improve the traceability of goods.

Several government representatives cited reforms they had undertaken to increase competition among internet service providers, with the aim of improving service and lowering prices.

Challenges

Challenges related to digital trade included:

- The lack of a commonly accepted definition and terminology for digital trade
- Uncertainty over which trade rules apply, and in what situations
- The challenge for regulators to constantly keep pace with new technologies – and new uses of existing technologies

- The need to continuously keep cybersecurity front-and-centre, especially when it comes to keeping cross-border digital transactions secure

Challenges related to financing included:

- The need for more financing to improve the quality of connectivity infrastructure, especially in countries that experience damage from extreme climate events;
- Keeping the right balance between the public and private sectors when it comes to promoting digital trade and protecting consumers.

Case examples

- The UNCTAD-led eTrade for All initiative, which is helping low-income countries realise the potential of e-commerce and digital trade for development.
- Ethiopia's national digital literacy campaign, which also covers primary schools.
- Mali's programmes to increase connectivity, especially in remote areas.
- Lithuania's efforts to create a friendly regulatory regime for the FinTech sector, including a FinTech sandbox.
- Nepal's focus on promoting secure online payments to help facilitate digital trade.
- Germany's engagement with efforts to create international standards, such as the OECD's Digital Trade Inventory with Rules, Standards and Principles.
- UNIDO's set of tools and guidance, especially readiness assessments and expert matchmaking programmes, to help countries realise the benefits of digital transformation.

Links to WSIS Action Lines and SDGs

This session was relevant to WSIS Action Lines on E-business and E-employment. The topics discussed were relevant to many SDGs, including 1 (no poverty), 3 (good health and wellbeing), 10 (reduced inequalities), 11 (sustainable cities and communities), 12 (responsible production and consumption), 16 (peace, justice and strong institutions), 17 (partnerships for the goals).

Road ahead

There will be a continued focus for many countries on ensuring critical enablers are in place for a flourishing digital economy – such as connectivity, digital skills, and financing. Promoting digital the digital economy will continue to be a priority for many countries, as well as ensuring regulation and trade rules keep pace with the latest developments. Finally, expect international organisations, governments, and the private sector to continue to work together towards a shared terminology and common standards for digital trade.

ETHIOPIA

H.E. Mr. Belete Molla Getahun
Minister
Ministry of Innovation and Technology

Questions:

How is the digital revolution changing the nature of trade?

What are emerging policy and regulation measures (key focused areas) for Digital Trade?

The globalization of the internet and the flow of data across borders have led to the digitization of economies, with every sector of the economy now relying on the internet and data to conduct business. Governments, business, and civil society in the developed and developing world can use these technologies to improve the quality of economic growth, create new jobs, strengthen social inclusiveness, and improve governance.

The globalization of the internet and the ability to move data across borders is also transforming the nature of international trade. This is happening in five key areas:

- Businesses can use the internet (particularly digital platforms) to export. This is a particular opportunity for small and medium-sized enterprises (SMEs) and businesses in developing countries to use these platforms—and the comprehensive set of ancillary services they provide—such as online payment mechanisms, to reach consumers globally.

- Services can be increasingly traded online, particularly IT, professional, financial, and education services. New digital services such as cloud computing have also been developed and are becoming crucial business inputs.
- Data collection and analysis is allowing new services (often also provided online) to add value to goods exports.
- Global data flows underpin global value chains.
- The growth of digital technologies such as 3D printing and M2M communications is further complicating the nature of trade transactions, with implications for regulatory co-operations and changes to established trade related principles like rules of origin.

Emerging policy and regulation measures (key focused areas) for Digital Trade

1. Examination and policy advice for governments surrounding how to develop a regulatory environment to maximize the opportunities of the internet and data for economic growth and engagement in digital trade.
2. Analysis, research, and engagement on the development of international trade rules and norms to support digital trade.
3. Improving the understanding amongst regulators of the impact of regulation on digital trade.

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

MALI

H.E. Mr. Maitre Harouna Mamadou Toureh
Ministre
Ministère de la Communication, de l'Economie Numérique et de la Modernisation de l'Administration

---

Questions:

How is Mali bridging digital divides especially in connecting rural communities?

Audio recorded message available here:
https://itu.zoom.us/rec/play/aM8ZPviEjwrMAC9S5Kr8U1Tb16GQd9Aj0590GiH65hzpw7PmrYEECpp_pu56axxeJ5TlSTY2UIfpGA.zvIxTEpX2mSkoYEh?startTime=1655124827322&_x_zm_rtaid=Kgum0sRLSJ-yd7btkUEFpQ.1658740934936.0eef1bec67696e5162d4684473dbe4c2&_x_zm_rhtaid=283

LITHUANIA

H.E. Ms. Eglė Markevičiūtė
Vice Minister, Ministry of the Economy and Innovation

Questions:

Is digital economy = only ICT sector? What role could ICT play in the global digital economy?

Benefits of ICT in a Digital Economy. What measures should we take to seize the benefits of ICT for economic growth and engagement in global digital trade?

The digital economy has a profound influence on the world's economic growth and the social well-being of ordinary citizens. The ICT sector often plays a key role in the digital economy and stands at its center, serving as a reliable yardstick of its performance. It builds and provides digital tools for digital economy to exist, however, it is no longer the only player in the field.

Digital economy is usually defined as a broad range of sectors and companies using digital tools as a key factor of production and using digital networks as a space for their activities. Various platform economy companies, e.g., Airbnb, Facebook, startups, e.g., Vinted, and e-commerce companies, e.g., Amazon, which are not traditionally considered as ICT companies, are playing an important role in the digital space now. If we limit the understanding of digital economy to just a traditional ICT sector, we will not be able to capture the whole impact that digital has on our economy.

Digital economy is one of the main parts of the Lithuanian economy where only the manufacturing, trade, transport, storage, and construction sectors outperform the digital

economy. Various studies show that the digital economy has been growing faster than the economy as a whole.

Digitalization is on top of the agenda of all countries, Lithuania no exception. The following two examples of initiatives evidence their importance to the Lithuanian digital economy.

In the last few years, the fintech sector in Lithuania has skyrocketed, attracting attention from around the globe. With its top talent, favourable business environment, friendly regulatory system and supportive ICT ecosystem, Lithuania is named as an ideal home for fintech - according to Global Fintech Index 2021, Lithuania is the10th best country in the world for fintech. Fintech start-ups operating in Lithuania are strongly focused on growth not only in domestic but also world markets. This community shares experiences, participates in joint activities and projects, and has partnership with the global fintech community.

Another inspiring Lithuanian initiative GovTech LAB is also based on ICT solutions and cooperation. The GovTech Lab invites innovative start-ups and academia to cooperate and expand the unique GovTech market and create an innovative public sector environment. GovTech Lab serves as an accelerator for digital transformation in the public sector by identifying the most pressing challenges and encouraging startups and SMEs to create digital solutions.

These examples prove that cooperation and partnership between different organizations is essential for business, country's success and growth of digital economy in general.

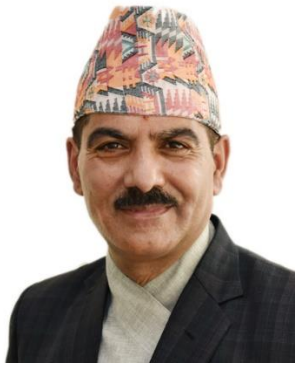
The globalization of the internet and the flow of data across borders have led to the digitization of economies and is also transforming the nature of international trade. Governments, business, and civil society in the developed and developing world can use ICT to improve the quality of economic growth, create new jobs, strengthen social inclusiveness, and improve governance.

Cross-border data flows are essential to the global economy. Digital services and the data they generate are becoming an increasingly important feature of the global economy.

Digitalization creates new trade opportunities and the potential to support resilience in times of disruption, yet economies and firms with low levels of digital preparedness risk falling further behind.
Our actions are needed to strengthen their capacity to benefit from digital trade. The coronavirus disease (COVID-19) pandemic has made this need even more urgent.

Many countries still need to improve their capacities to engage in and benefit from digital trade. Policymakers face a task in keeping up with the rapid pace of technological change and dealing with the general scarcity of data and high degree of uncertainty. Ensuring more inclusive outcomes from digital trade requires a holistic and coordinated approach to formulating and implementing relevant policies, often supported by development assistance.

NEPAL



H.E. Dr. Baikuntha Aryal
Secretary
Ministry of Communication and Information Technology

Questions:

How the digital economy may be strengthened in the countries where the infrastructure is underdeveloped and developed infrastructure are not stable?

How can Countries collaborate with each other in promoting cross border transaction?

Mr. Chairman,
Excellencies,
Distinguished delegates,
Ladies and Gentlemen.

It is my great pleasure to participate in this high-level policy session to strengthen digital economy and trade. At the outset, I would like to thank the International Telecommunication Union for organizing such an important discussion at the time when the whole world is facing the impacts of external shocks in their economy.

With the revolutionary development of ICT in the recent years, almost every country, be it a developed or developing, adopted it as the means of all kinds of economic activities. However,

the uniform accessibility and development is yet to be ensured in the developing countries. The ICT has become even more important in the countries with the poor physical infrastructure. Good quality physical infrastructure and uninterrupted connectivity remains a challenge in almost every developing country. The countries with difficult terrain face more challenge to expand the road and other networks and to maintain them.

Nepal, being a mountainous country is vulnerable to the natural casualties every year and many infrastructures are wiped out by the landslides disconnecting the road access. Undoubtedly, this results into costlier services, higher transaction costs and depreciated affordability. This demands the sustainable digital infrastructure to enhance the socio-economic activities across the country. Secondly, the quality of service needs to be ensured and the service providers have to be capacitated. Third, the digital literacy has to be widespread to enhance financial inclusion and avoid the risks associated with it. Fourth, global collaboration is a must for cyber security. Nepal has given priorities to these aspects through Digital Nepal Framework, 2019 and government programs are aligned with it..

The Covid-19 pandemic may have provided blessings in disguise for the ICT sector. Most of the economic activities within and outside the countries are being carried out with the help of ICT. However, cross border transactions are still not smooth as expected. Payment gateways are not developed, seriously causing difficulties in online payments for trade. The acceptance and accreditation of one country's payments system is still a question, and many of us have to depend on other systems. Many countries have certain barriers and limitations for payments, including upper ceiling of amount to be transacted online. This does not only limit our smooth trade but may also encourage the illegal trade and fraud payments.

In these backdrops, we feel that a joint collaboration is needed among the countries to strengthen our cross-border transactions. Our collaboration is further required to support in making the payment systems strong, reliable and secured so that our systems talk and international trade of goods and services become increased remarkably.

Although, all countries have adopted ICT as their basic needs for all kind of activities, the financing for developing it always remains a challenge. This has affected the financing priority for development of ICT and resulted into poor system, often risked with security issues. Therefore, a strong commitment is needed for increasing finance in the ICT sector for five

reasons – (1) developing the infrastructure with sustained global connectivity, (2) enhancing the capacity of personnel, service providers and users, (3) ensuring the quality of services, (4) making the eased cross-border payments, and (5) strengthening the cyber security.

With these small notes, I would once again thank the organizers for these important discussions and deliberations.

Thank you !

GERMANY

Dr. Thomas Zielke
Director, Head of Division, Office for National and International Standardization Policy and Patent Policy
Ministry for Economic Affairs and Climate Action

Questions:

What could the ITU do in particular to foster digital trade and a level playing field that would respect the needs of developing countries?

What does Germany do to foster an open and transparent standardization system?

Dear Mdme/Mr. Chair, Executives of ITU,
Distinguished delegates and guests!

The value of digital ICT services' exports worldwide reached roughly 680 Billion US Dollars according to the 2021 UNCTAD Digital Economy Report. However since the use of digital technologies rapidly expands worldwide there still is a significant gap between developed economies and developing regions in percentage of internet use. Which clearly has to do with coverage problems. The download of commercial software applications astonishingly in developing countries is higher than in well developed countries. But the numbers in using e-commerce are the other way round. The use of ICT for Industry 4.0. or IoT in well developed countries is higher, but the percentage of people participating in social networks is very comparable between 70 and 88 % no matter whether people are situated in a highly industrialized or a developing countries. Which means people are chatting and posting around

the globe in almost the same intensity. We can see: the potential of digital trade of services and goods, of streaming and cloud-services and of business opportunities even for small start ups in rural aereas around the world are enormous, due to the high rate of internet related communication activities worldwide.

Digital technologies have the potential to facilitate trade globally - far beyond of paperless trade. They for example enhance the efficiency of customs procedures. Blockchain, the Internet of Things, data analytics, artificial intelligence or machine learning enable automated global supply chains and potentially provide better transparency, accessibility of information and data quality. But all too often there is uncertainty which rules do apply, which regulation is relevant, what kind of standards are valid, how consumer protection is ensured. As a matter of fact no one knows exactly how digital trade actually is defined.

The OECD in a recent policy paper points out that digital trade lacks a common definition but states that the term expression can include all internet related digital activities such as e-commerce, Digitalisation, digital transformation, international trade, platforms, and data. The German government therefore supports all attempts to structure the discussion and the terminology in order to take steps to build up an international framework of rules and standards that helps businesses to grow digital within a reliable environment.

The EU Digital Services Act for example is a milestone rule that for the fist time clearly states that what is illegal in the real world shall also be illegal in the virtual digital economy. Timely the OECD Trade and Agriculture Directorate has issued a Digital Trade Inventory with Rules, Standards and Principles. We should build up on this, because: Standards are an essential element of the digital transformation.

ICT standards ensure interoperability of technical infrastructure and data, operationalize regulations for new technologies and enable international trade as well as development. International standards are a key to open up the potential of ICTs for inclusion and green transformation. One example is digital health: Standards transform a digital pile of medical records into a machine-readable data pool that can support medical diagnosis. They should be guided by internationally agreed principles from WTO TBT: Transparency, openness, impartiality and consensus, effectiveness and relevance, coherence and the development dimension.

The international standardization ecosystem has again and again proven to be the right place to bring innovation to the market and the people. To keep it that way, standardization organizations have to attract ICT innovators and convince them that participation in

standardization activities is the best way to make the most of their ideas. International Standardization and in particular the ITU plays a crucial part in this international effort. As Germany we will continue to support the inclusive policy approach from ITU, for example through the Smart Africa Digital Academy (SADA) which focuses on policymakers and other stakeholders who shape framework conditions, policies and regulations for digital transformation. This is achieved through an e-learning platform.

The GovStack Initiative is a cooperation between Germany, Estonia, ITU, and DIAL (the Digital Impact Alliance). Our joint vision is to empower governments – particularly those in low-resource settings – to take their digital future in their own hands.

I am looking forward to your questions and remarks, thank you !

United Nations Industrial Development Organization

Dr. Bernardo Calzadilla Sarmiento
Managing Director of UNIDO's Directorate of Digitalization, Technology and Agri-Business

---

Questions:

How does the digital economy, the digital transformation change trade? What impact do you see, what is still to come?
What implications does the digital economy have for industrial policies, particularly looking at financing efforts to bridge the digital divide?

The **digital economy** and the associated **digital transformation** bring **challenges** and **opportunities** in the way we work and live. This naturally extends to the way companies trade, innovate and compete in international markets.

For years, joining Global Value Chains was a particularly fast way for companies in developing countries to learn, upgrade technologies, quality and capacity, thereby increasing revenues, so we promoted joining GVCs as a major objective in many UNIDO interventions.

But now there is an increasing trend **toward the rearrangement of supply chains** to make them more resilient toward climate change effects and different conflicts and crisis.

Digitalization can make that possible, protecting value chains and trade flows, in particular, in developing countries. In this new paradigm topics such as **quality infrastructure**, **traceability**,

blockchain, **transparency**, **standards**, are playing a larger role through innovative tools so companies can retain much higher value added.
In general, there is a big chance that the digital economy could level the playing field. More companies can become international, use **e-commerce**, **branding**, **use new technologies** for collaborating internationally, be part of innovation networks and compete.

But there is a catch, too! Jumping onto trends that could be outdated tomorrow.

For instance, the hype for **Non-Fungible Tokens, NFTs,** that has spread across many parts of the world and more are developing products based on that, but we don't know if NFTs has already declined from its peak. So carefully balancing your ways into those so-called technological, economic revolutions is the key.

Another challenge is the digital divide, with inequalities, access to education and information, in mind, there are some questions, which become ever more pressing. **Who can benefit from the most recent developments?** Those that have access to broadband internet, technologies that are needed behind that – otherwise it's a jump from one dependence to another.

Let's not forget that we need to focus on lower income economies and in particular the Least Developed Countries, where to take advantage of the digital economy, countries need to enhance skills, investment and infrastructure **to support a truly productive transformation**.

Generally, Innovation has always been the main driver of human development and innovation in ICTs that foster the digital transformation is no different. The **digital economy** is essential for **industrial policies**, and for this **the private sector takes a central stage**.

New partnerships are needed. **More than just a classic Public Private Partnership model.** For instance, a model of co-creation as well as co-financing between public and private sector institutions.

Blended finance mechanisms could also help, but require more substantial reform in the support networks, such as national and regional systems of innovation. This so called "ecosystem" that is mutually reinforcing. **The private sector** getting access to highly qualified and trained people; the universities, vocational and research institutes get the funds from both public and private sectors; and governance that is supportive of such schemes.

Also, as we see in major cities in the world, more emphasis is needed to spark in the developing world the presence and emergence of innovative **startups**, **accelerators**, **innovation hubs**, and **incubation centers.**

We can support this through international funds; international steering committees, which have the overview and can accompany such a process through best practice sharing, advice and networking.

We need **banks** –development, public and commercial- that believe in such transformations; **we need to establish blended finance mechanisms** where inexistent and strengthen where needed.

Skills have to be harnessed. **Training institutions** will need international peers to ensure relevant qualifications are obtained and in place, where innovative ideas could be implemented.

To realize the promises of the digital transformation, **UNIDO has developed a set of tools and guidance**; particularly **maturity** and **readiness assessments**; **matchmaking companies and experts**, **guiding talent / expertise** to where it's needed.

The most important aspect, which needs to be brought into the spotlight, and is the "**guiding star**" for those initiatives, is a shared vision. Everyone needs to know where they want to go, have a clear target, and can mobilize the stakeholders in selected system.

Thank you.

Session Eleven: Cultural diversity and identity, linguistic diversity and local content/Ethical Dimensions of Information and Knowledge Societies/Media/ICTs and Gender Mainstreaming

Recording: https://www.itu.int/net4/wsis/forum/2022/Agenda/Session/460

Moderated by High-level Track Facilitator:
Mr. Paul Spiesberger, Chair, Austrian Network for Information and Communication Technologies for Development, Austria

WSIS Action Line Facilitator:
Dr. Tawfik Jelassi, Assistant Director-General for Communication and Information
UNESCO

Speakers:

1. **Suriname** - H.E. Mr. Albert Jubithana, Minister, Ministry of Transport, Communications and Tourism, Suriname
2. **Russian Federation -** H.E. Ms. Bella Cherkesova, Deputy Minister, Ministry of Digital Development, Communications and Mass Media of the Russian Federation

3. **Switzerland** - Mr. Bernard Maissen, Directeur Général, Office Fédéral de la Communication
4. **Zimbabwe** - Dr. Gift Kallisto Machengete, Director General, Postal and Telecommunications Regulatory Authority of Zimbabwe
5. **UN Women** - Ms. Adriana Quiñones Giraldo, Director, UN Women´s Liaison Office in Geneva, Switzerland
6. **Internet Society -** Ms. Rinalia Abdul Rahim, Senior Vice President, Strategy, Communications and Engagement
7. **OCCAM -** Dr. Pierpaolo Saporito, Architect, President, OCCAM - Observatory for Cultural Communication and Audiovisual in the Mediterranean and in the World, Italy
8. **EC MEDICI Framework of Cooperation**, Prof. Alfredo Ronchi, Secretary General, Italy
9. **Kuza STEM Generation and Mozilla Foundation**, Ms. Rebecca Ryakitimbo, CEO/ Fellow

Executive Summary by High-Level Track Facilitator

The High-Level policy session 11 entitled *"cultural diversity and identity, linguistic diversity and local content/Ethical Dimensions of Information and Knowledge Societies/Media/ICTs and Gender Mainstreaming*" welcomed a diverse panel of experts mirroring the wide range of topics. The discussion and statements covered WSIS Action Lines C8, C9, C10 and C11 while contributing to SDGs 5, 9, 16 and 17.

Participants of Session 11 actively promoted further tightening the collaboration of all member states of the United Nations. The discussed issues concerning the internet, online media, global ethical ICT standards and gender equality are a global phenomenon and can only be solved with close collaboration. Especially a focus on small and middle-sized countries should be encouraged, and their participation should be actively promoted, to allow them to participate on an equal level.

There was a broad consensus that current ICTs and the internet as such are not welcoming and actively supporting cultural diverse content. It was stated that the world is getting more and more socially divided by culture and languages, especially on the internet. The main challenges for governments are the lack of investment for translations and the limited research conducted on local cultures and languages. Local content creators were several times stated as a way forward, which would grant more people access to local and relevant content. This would especially include the elder and younger generations who are currently widely excluded from

accessing content online due to cultural and language barriers. Digital literacy, focused research on local cultures and further educational programs to promote local content creators are of the essence. Tools to work for all languages need to be developed and promoted.

Several panellists raised their concerns about the current state of freedom of speech, equal access to the internet, active censorship, internet shut-downs, freedom of expression and the quality of information online and in modern media. Quality content versus misinformation has become a serious challenge and people lack the essential digital literacy skills to distinguish between them. Only intensive trainings and awareness campaigns can counter the decrease of online quality content and how it is perceived. Journalists are currently heavily under attack and are facing threats on- and offline, especially women and girls. Freedom of expression and freedom of the press must be ensured. The fragmentation of the internet, the so-called Splinternet, is a growing concern and endangers a global internet where people can freely exchange information and connect. A shared belief that the internet must be open for everyone was underlined several times.

The Gender Digital Divide was firmly discussed as the current COVID-19 pandemic exponentially increased online harassment. There is still a lack of data, but first evidence surfaced that ID theft, hate campaigns, sexual harassment, deep fake pornographies, and other forms of harassment against women still heavily persist in the online world. It is of the essence to define all types of violence against women to make predators accountable for their crimes. Women and girls need a safe space online to freely express their thoughts, participate online and access quality content. Unfortunately, many women are still not aware of their digital rights or are not able to execute them. Further awareness programs are needed to strengthen women's rights online. Actions conducted by the panellists were local studies all over the world, developing policy guidelines, further promotion of women in ICTs and to create a coalition for safe internet access.

Concerns about ethical aspects of upcoming and current technologies were raised during most statements. The erosion of privacy and the lack of data ownership is an increased thread to free societies. Only a few companies are in control of future technologies such as Artificial Intelligence, robotics or the Metaverse and will dictate their rules upon their users. Online security, mass surveillance and the impact on businesses pose an additional challenge to the

freedom of the internet. Decentralization of the internet to break the power of the big players and promote diversity must be on top of the agenda for the upcoming years.

Case Examples

- World Press Freedom Day Global Conference, Punta del Este, Uruguay organized by the UNESCO
- WSIS Forum 2022 Hackathon — ICTs for Indigenous Languages. ICTs for Preservation, Revitalization and Promotion of Indigenous Languages: Leaving no one behind, no one outside
- UN Women's actions such as the International Girls in ICT Day 2022: Access and Safety or the Handbook on gender-responsive police services for women and girls subject to violence
- Infopoverty World Conference, The Digital Citizen: Duties and Rights to Build a Fairer Future Society
- EWA-Belt Project, Linking East and West African farming systems experiences into a BELT of sustainable intensification

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

SURINAME

H.E. Mr. Albert Jubithana
Minister
Ministry of Transport, Communications and Tourism

Questions:

The United Nations is not really 'united'. How do you ensure more synergy and real collaboration?
How can we get rid of the ignorance? This has been there since history ?

Missing Statement

RUSSIAN FEDERATION

H.E. Ms. Bella Cherkesova
Deputy Minister
Ministry of Digital Development, Communications and Mass Media of the Russian Federation

---

Questions:

From your point of view, how digital transformation processes affect the existing media landscape?

What are the features and trends of the development of the new media sphere?

Missing Statement

SWITZERLAND

Mr. Bernard Maissen
Directeur Général
Office Fédéral de la Communication, Switzerland

Questions:

What is the relevance of local content in the respective language online?

What is the importance of quality journalism in the digital age?

Missing Statement

ZIMBABWE

Dr. Gift Kallisto Machengete
Director General
Postal and Telecommunications Regulatory Authority of Zimbabwe

Questions:

What has been the Impact of ICTs on Cultural diversity and Heritage, linguistic diversity, and Local content?
What major challenge with regards to local content, is prevalent across the world and how can the challenge be mitigated?

The creation and perpetuation of a social divide based on race, culture, heritage and language is well documented. The advent of ICTs saw that divide going digital, as content especially on the Internet follows a cultural and linguistic perspective of content creators. Therefore, the divide actually keeps widening despite all documented efforts.

As I see it, the Internet does not promote cultural diversity, heritage of minority groups, linguistic diversity and local content creation. In fact, the Internet promotes the widening of a gap between cultural and linguistic groups – the very same gap as the social gap.

This is because Content on the Internet is predominately in one language and while there has been an attempt to translate Internet content into other languages, this has been done for just but a few languages leaving behind the vast indigenous languages spoken by minority groups.

There has not been enough effort towards translating content on the Internet into these minority languages, thus leaving these groups behind. Because culture is embedded in

language, the culture of some groups has been propped up more by the Internet compared to that of other groups.

Overall, the impact of ICTs on Cultural Diversity and Heritage, Linguistic Diversity and Local Content has been rather negative than positive.

The major challenge is that of limited investment in translating content into minority languages, which has seen the dominance of content in a select few languages. As long as there is not enough investment in translating content on the Internet into all languages then others will always be left behind. Their cultures and heritage will not be exposed and their local content will not be known.

This challenge has mainly affected developing countries. Content designed by content providers in Developed countries, may be of limited use or no use to citizens of developing countries. Irrelevant content which reflects language, lifestyles and concerns that do not address the needs of residents of developing countries, is a challenge that needs to be addressed.

I consider this to be a major challenge because the advantages of local content creation especially in local languages are enormous. One advantage is inclusivity in the use of the Internet. If one is to access content relevant to them in their indigenous language then they are likely to benefit more from the Internet.

Limited linguistic diversity on the Internet is, therefore, exclusionary and against the principle of Universal Access and Use of the Internet. Limited linguistic diversity also undermines people's rights to Information and people rights of association among other rights otherwise enabled by the Internet.

To mitigate against this challenge I call upon the WSIS Community, that is International Organisations, Governments, Civil Society, Private Sector and Academia among other groups to invest in overarching linguistic diversity of the Internet as this would be a catalyst for cultural diversity and local content creation.

Additionally, I urge the WSIS Community to promote research and development programmes geared towards increasing local content. We need the WSIS community to promote innovation in local languages, programming in local languages. Yes it can be done.

On our part as the Telecommunications regulator in Zimbabwe, we ensure that our Community Information Centres provide local content concerning economic activities such as markets for

locally produced goods and services offered by locals, local tourism and weather patterns for different communities, is uploaded at the respective sites. This approach can also be adopted in other jurisdictions as a mitigatory measure.

I thank you.

UN WOMEN

Ms. Adriana Quiñones Giraldo
Director
UN Women´s Liaison Office in Geneva, Switzerland

Questions:

Ms. Quiñones, UN Women is the UN Entity dedicated to Gender Equality and the Empowerment of Women. Could you please describe some of the major gendered impacts of information and knowledge societies that the WSIS community should be aware of?

Could you outline some of the actions that should be taken by the international community to address these issues?

- For women, access to digital technologies can open important opportunities for education, employment and entrepreneurship, as well as participation in public life. However, a large number of gendered impacts linked to emerging technologies are a cause for concern. These include the growing gender digital divide and under-representation of women in ICT careers. Another growing concern is the **increased online and ICT-facilitated violence and harassment that women and girls are faced with when they do actually gain access to the digital world**.
- Since the outbreak of COVID-19, evidence shows that all types of violence against women and girls have increased exponentially. As the world went into confinement and work, education, and other spheres of life shifted online, we saw a stark rise in online and ICT-facilitated violence.
- Women and girls are increasingly experiencing physical threats, sexual harassment, cyberstalking, identity theft, the publishing of personal information or photos, and hate

campaigns. Pornographic traffic also spiked dramatically, increasing the risk of sextortion. Women and girls are also the targets of 96% use of "deepfake" technologies, where their faces are superimposed on pornographic images or videos.

- While there is a lack of comprehensive data, there is evidence of a growing trend. In the USA and Canada, one in five young women report having been sexually harassed online, while in Pakistan, this rises to 40%.
- Some women are particularly targeted, including journalists, politicians and activists. 82% of women parliamentarians reported having experienced some form of violence while serving their terms. Nearly half reported receiving death, rape, assault, or abduction threats towards them or their families, citing social media as the main channel of violence.
- **The aggression faced by women and girls online can restrict their access to online services and tools, affect their work and learning opportunities, and deter their engagement in important online spaces and dialogues**. Safe online spaces must be ensured to provide opportunities for women and girls to study, work, and participate in public life.
- UN Women carried out a **Global Landscape Analysis (GLA) on ICT-facilitated violence against women and girls** to identify key knowledge and implementation gaps:
  - This is very much an emerging area, which **requires better data and evidence to inform policy making**.
  - It also requires the development of **specialized regulation, and specialized services for victims/survivors** as well as **building the capacity of legal and regulatory institutions, including law enforcement officials**.
  - Given the nature of the digital spaces and tools used, and the role of internet intermediaries and international corporations, **international cooperation is critical** both for developing a global governance framework, and in developing the capacity of stakeholders to act in this complex and rapidly evolving field.
  - At the same time, **victims/survivors are often unaware of their rights and available measures to prevent and respond to online and ICT facilitated violence**. There is therefore much to be done in terms of raising awareness of online and ICT-facilitated VAWG, and in informing users of their rights, services, and means of redress.

- **UN Women has supported a range of actions** in this respect, including:
  - Supporting **regional national and local studies** in the Arab States, Asia Pacific, Africa, Europe and Central Asia, and Latin America
  - **Developing policy guidance** to guide policy and programme action[4]
- In July 2021, UN Women launched an Action Coalition on **Technology and Innovation for Gender Equality**, which brings together multi-stakeholder partners to ensure that *women and girls have equal opportunities to **safely** and meaningfully access, use, lead and design technology.*
- **But much more needs to be done**. We call on the WSIS community to harness the power of our networks and partnerships to ensure safe online spaces for all.

[4] See for Example Policy Briefs prepared: UN Women (2020) Online and ICT-facilitated violence against women and girls during COVID-19 and Recommendations to Action: Recommendations into action brief COVID-19: Safe cities and safe public spaces for women and girls (2020)

INTERNET SOCIETY

Ms. Rinalia Abdul Rahim
Senior Vice President, Strategy, Communications and Engagement
Internet Society, United States of America

Questions:

Why are capacity building and e-learning efforts key for shaping the Internet of the future?

What is the Internet Society doing to increase e-learning opportunities for Internet champions?

Thank you, Mr. Spiesberger, for hosting this session.

Thank you also to the ITU, UNESCO, and all UN agencies involved in the WSIS. The Internet Society is a global nonprofit organization that empowers people to keep the Internet open, globally-connected, secure, and trustworthy. We believe that the Internet is for everyone. This incredible technology has spread exponentially across the globe in just a few decades. Many of us now depend on it in our day-to-day lives. Yet, it is still not available to everyone. Despite technological progress, billions of people are still unconnected. We need to grow the Internet for them. But it's not about simply growing the Internet. We also need to ensure the Internet's ongoing sustainability and ability to benefit all users to the fullest extent possible.

That is why we strive for an open, globally-connected, secure, and trustworthy Internet – This Internet is the one that is for everyone. We prioritize capacity-building to empower people to grow and maintain the Internet in a way that delivers the Internet that is for everyone. Growing the pool of Internet experts and preparing a new generation of leaders in Internet technology, policy, and business is essential.

This begins with awareness and education for people to obtain a solid understanding of what the Internet really is and what it needs to exist and thrive. It is important to raise awareness about the value of the open and globally connected Internet because it is a truly unique global resource. It underpins progress and success in critical areas of societal development. Areas like education, healthcare, economic growth, technological development, gender equality, and diversity. Educating policymakers and technical experts on how to make better decisions about the open and globally connected Internet is critical in light of the significant threats to the Internet we see today.

We live in a world where decisions – often politically-motivated – carry the potential to undermine the value of the global Internet for us all. There is an immediate risk that the global Internet we count on today fragments and becomes what we call "a splinternet". That is an Internet that is broken into many isolated networks and controlled by individual governments and corporations. We have seen signs of a looming splinternet for several years. The war in Ukraine recently sparked various geopolitical responses, which brought us closer than ever to a tipping point that would result in a less open and less globally-connected Internet. We also continue to witness Internet shutdowns, where access is restricted, where people's connectivity to the rest of the world is severed.

A splinternet would reduce the utility of the Internet for all users. We need to prevent it. To do so, we must empower every Internet user to be a champion for the Internet. This calls for effective awareness-raising and capacity building for the future. Our contribution towards this is as follows:

• The Internet Society and our global community have many initiatives to empower people with knowledge and skills, to grow and protect the Internet for everyone.

• We offer many free courses and programs in leadership, policy, and technology to nurture the next generation of Internet champions.

• Last year, we launched Learning @ Internet Society. An online learning platform with course offerings that help people learn about the Internet and take action.

• For example, our course on the "Internet Way of Networking' helps people understand the unique characteristics that define the Internet. The course is complemented by practical tools, such as the Internet impact assessment toolkit, that give policymakers and Internet champions tangible ways to determine whether the open and globally connected Internet is at risk.

We offer various courses and tutorials on critical Internet topics: from community networks and network operations to encryption and Internet governance, among others.

• In addition, every year, we organize the Network and Distributed System Security Symposium (NDSS). It is a leading global security conference that builds capacity among researchers and security experts. The purpose is to advance the state of practical security technologies that will benefit all Internet users.

• And we continue to support the growth, development, and learning needs of Internet technical communities around the world, such as network operator groups. We are proud to play this role in shaping the future of the Internet.

We believe it is central to our vision and mission and foundational for an Internet that is for everyone. If you are interested in joining us in this effort or working together to empower the next generation of Internet champions, please get in touch. We'll be pleased to hear from you.

Thank you.

OCCAM

Dr. Pierpaolo Saporito
Architect, President
OCCAM - Observatory for Cultural Communication and Audiovisual in the Mediterranean and in the World, Italy

---

Questions:

Considering your pivotal role in the field of Digital innovation and ICTs which resulted in OCCAM participation to the 2003 WSIS that launched the Infopoverty World conference at the UNHQ, how have the ethical principles underlying the ICTs and the Digital Media evolved throughout the past twenty years?

Recalling OCCAM participation to the 2005 Tunis Summit managing WSIS TV Space and resulting in the signature of the Memorandum of Understanding for Indigenous People signed with ITU and in the implementation of the ICT Village of Borj Touil that launched a series of Digital best practices and e-services, what are the next challenges to be addressed?

Missing Statement

WSIS Forum 2022: High-Level Track Outcomes and Executive Brief

EC MEDICI Framework of Cooperation

Prof. Alfredo Ronchi
Secretary General
EC MEDICI Framework of Cooperation, Italy

Questions:

We are witnessing significant changes due to the pervasiveness of information technologies, which influence they have on our society?

Are there emerging cyber technologies creating specific concerns on the ethical side?

Excellences, Dignitaries, Hon'ble delegates, Ladies and Gentleman from across the globe, good morning/afternoon/evening

To answer the first question,

Digital technology in general had and still have a strong impact on society, the pandemic accelerated and amplified such impact especially on young generations. "Users" are overlapping more and more with "citizens", they consider technology and e-Services as an everyday commodity like, to buy a ticket, to meet a medical doctor, to access the weather forecast, and more. Citizens, originally trained by the pandemic, now leveraging on laziness and cosiness spend less time outside home, they use to have shopping online, they buy food and drinks directly delivered on their table, "meet" friends on Zoom or WhatsApp, interact with the "outer environment" though the mediation of social media and video clips. These aspects are even more evident in young generations that add to the social media the gaming dimension. Of course, such trends are even amplified by other media such as television shows and news. People is losing the connection with reality and consider as "reality" the "double" offered by

cyber media. Some recent event clearly outlined the impact of such cyber-reality projected by cyber-media.

Privacy is endangered by our technological "buddies". In the "Appification" era there are almost no limits to data collection and reuse, "someone" knows exactly where you are now and where you have been, APPs may collect your medical data, fitness program, your expenses or collect and analyse your contacts, your photos or video clips. In recent times crowd data collection, open and big data, more or less anonymised, provided the big framework. We live in a world in which there are already countless sensors and smart objects around us, all the time. The car we drive, the phone in our pocket, our wristwatch, the clothes we wear, are smart and connected, then the concept of "private" becomes far more ephemeral. This is not enough, what it is not collected by APPs it will be collected in a seamless mode by IoT; of course, IoT will add a lot to our life, but this will cost us a significant part of our privacy.
Safety and security are challenged by various hackers, taking control of our smart building, washing machine or car, our personal data can be misused, abused or become inaccessible.

Of course, we find even positive values like freedom of expression. This is one of the most appreciated opportunities offered by the network and it is already evident that any kind of top-down censorship or control fails. Freedom of expression is usually associated with the terms hating, online libel, hoax, fake news this because the improper use of freedom of expression can generate such negative behaviours. Of course, such extensive and negative interpretation of freedom might generate some reactions that can be even worse than the problem itself. A typical and sometimes concrete example is the establishment of a "commission" in charge for the fight against fake news, the one owning the "truth", the risk in an "information society" is to cancel debates, silence alternate views.
In addition to all these potential drawbacks, we observe the massive decrease in the level of critical thinking and the emergence of waves of information epidemics, both at the national and global level. Post-truth in its heyday, with public perception, shaped more by means of addressing feelings and predetermined opinions rather than facts, with fakes, click baits, hypes and other tools introduced to form post-reality in the political and media culture.

A recent creature even if the concept dates back decades is the Metaverse, the first step toward science fiction scenarios. Post-reality is changing the system of values with the "new" normal of course may be politically correct. New ethics is putting personal free will and freedom of choice under question; traditional cultural regulators of social relations and processes being displaced by automated social algorithms. Widespread simplified virtual mock-ups and simulacra are not only blurring the borders between the real and the digital world but also led to a mass collection of data for managing people's behaviour.

Concerning your second question:

The emerging technological trends like autonomous vehicles, robots, machine learning and artificial intelligence may pose significant ethical problems to innovation. The extensive use of AI, ML and Big Data, apart from several ethical issues, can led to some drawbacks like nudging.
The concept of nudge is already used in digital systems even if the nature of the mechanisms that characterise it is not always consistent, and some uses overflow into practices already prohibited by current legislation. The progress of AI has made it possible to develop much more powerful nudge mechanisms thanks to the effectiveness of statistical and inferential AI systems. The impact of AI powered technology on human autonomy is huge. AI-enhanced Nudges reinforce the ability to achieve the designer goals using cognitive biases, emotional impulses, and other human behavioural mechanisms both intentionally and unintentionally.
Another emerging aspect is the opinion dynamics in social networks. Opinion formation is a complex and dynamic process mediated by interactions among individuals in social networks, both offline and online. Social media have drastically changed the way opinion dynamics evolve, in any case, they provide a reservoir of data for the study of opinion dynamics on social networks. Social media have become a battlefield on which opinions are, often violently, exchanged. In turn the behaviour of social media has become an important early indicator of societal change.

The challenges for the upcoming years are the ways to sustain the humanitarian part and the inviolable right to freedom and personal privacy in an era of unlimited supply of information and technological ventures. The need to find a proper balance is omnipresent. Social sciences and humanities must establish a tight cooperation in designing or co-creation of cyber technologies always keeping humans in the loop.

Thank you very much for your attention.

Kuza STEM Generation and Mozilla Foundation

Ms. Rebecca Ryakitimbo
CEO/ Fellow
Kuza STEM Generation and Mozilla Foundation, Tanzania

Questions:

How do we break biases that exist in voice technology?

What are the ongoing efforts to ensure underrepresented languages are represented in the digital world?

Voice technology is taking over the world and vastly getting interested in different aspects of life from the use of Siri and Google voice assistance on our phones to voice enabled automation service.Voice technology is the future and language is a big part of it if we are to talk of cultural diversity and representation.Language is an important communication tool both offline and online a marker of Identity and a determining factor for inclusion and diversity.Voice technology is only made possible when we have open voice data sets,transparency on the disaggregating of gender data and representation of low resources languages.

This is where plat forms like Mozilla common voice come in making voice technology community driven, impact driven and inclusive by focusing on building with the community not for the community.