OUTCOME REPORT

ITU Regional Forum for Europe on Meaningful Connectivity

8th-9th March 2021

Final version

ACKNOWLEDGEMENTS

This report has been produced by the International Telecommunication Union (ITU). ITU would like to express their appreciation to **high-level interventions** of Mr. Stephen Bereaux, Deputy Director of the Telecommunication Development Bureau, H.E. Mr. Boštjan Koritnik, Minister of the Ministry of Public Administration, Republic of Slovenia and Ms. Majlinda Bregu, Secretary General of the Regional Cooperation Council (RCC) for their insightful remarks during the event's Opening Segment of the first day, as well as the high level interventions of Ms. Doreen Bogdan-Martin, Director, Telecommunication Development Bureau, ITU, Ms. Alia El-Yassir, UN Women Regional Director for Europe and Central Asia, and Ms. Ajda Cuderman, State Secretary, Ministry of Economic Development and Technology, Slovenia on the second day.

ITU would also like to thank for the interventions of other high-level representatives, particularly Mr. Dan Sjöblom, EaPeReg Vice Chair for 2021, outgoing BEREC Chair for 2020 and Director General of the Swedish Post and Telecom Authority (PTS), Sweden, H.E. Mr. Milan Dobrijevic, Acting Assistant Minister, Ministry of Trade, Tourism, and Telecommunications (MTT), Republic of Serbia and H.E. Ms. Mariam Lashkhi, Member of the Parliament of Georgia.

In addition, ITU would like to express their gratitude to **panel moderators**: Mr. Jaroslaw Ponder, Head of ITU Office for Europe, ITU; Mr. Istvan Bozsoki, Head of Telecommunication Networks and Spectrum Management Division, ITU; and Ms. AnaMaria Meshkurti, Programme Officer, ITU Office for Europe, ITU.

Finally, ITU thanks all members of the **Programme Committee** who made this event possible: to Mr. Jaroslaw Ponder, Head of ITU Office for Europe for organizing and chairing the conference; to Dr. Polonca Blaznik, Director of the Information Society Office, Ministry of Public Administration, Republic of Slovenia, to Ms. Maja Levičar, Senior Advisor on International Cooperation, of the Ministry of Public Administration, Republic of Slovenia, to Ms. Manja Podkoritnik, Senior Adviser on International Cooperation, Ministry of Public Administration, Republic of Slovenia, and Mr. Istvan Bozsoki, Head of the Telecommunication Networks and Spectrum Management Division (TNS), Telecommunication Development Bureau, ITU, for valuable input in the preparation of the conference; and to Ms. AnaMaria Meshkurti, Programme Officer, ITU Office for Europe, ITU, Ms. Sarah Delporte, Consultant, ITU Office for Europe, ITU, Mr. Julian McNeill, ITU Consultant, ITU Office for Europe, and Mr. Stephen Imburgia, Junior Policy Analyst, ITU Office for Europe, who coordinated the delivery of this event and are editors of this report.

Table of Contents

1. INTRODUCTION

The ITU Regional Forum for Europe on Meaningful Connectivity was held online on 8th and 9th March 2021. The conference was organised by the International Telecommunication Union (ITU) with the support of the Ministry of Public Administration, Republic of Slovenia.

The Regional Forum for Europe was conducted by the ITU Office for Europe, organized within the framework of the ITU European Regional Initiative on Broadband Infrastructure, broadcasting and spectrum management adopted by the ITU World Telecommunication Development Conference 2017 (WTDC-17) that aims at facilitating high-speed connectivity with resilient and synergistic infrastructure development, deployment and sharing.

The event provided a unique opportunity for dialogue between stakeholders on strategies and policies aimed at connecting the unconnected and at ensuring that connectivity is leveraged meaningfully and inclusively, thereby contributing to social and economic development and accelerating the achievement of Sustainable Development Goals (SDGs). Key topics covered by the workshop included:

- Session 1: The Digital Divide in Europe: Ensuring meaningful and inclusive connectivity
- Session 2: Connecting Rural Areas in Europe: Regional and national approaches
- Session 3: Use of ICTs in Public institutions: A focus on connecting schools
- Session 4: Fostering Digital Skills development: Supporting demand creation for connectivity
- Special Session on Digitally Empowered Generation Equality in the wake of COVID-19

The Regional Forum's main outcomes are outlined in this report, which structures the key points emerged during each session.

2. PARTICIPATION

The Forum mainly targeted national administrations, national regulatory authorities (NRAs), regional organisations and intergovernmental organizations, representing both ITU Members and non-Members. Over **25** eminent speakers presented and discussed during the sessions. Details about the agenda and speakers as well as all presentations delivered, can be found on the event's website[1].

168 registered participants from more than **35** countries took part in the conference and an average of around **70** participants was online during each session. Participants included high-level representatives of administrations and national regulators from the ITU Europe region, including delegates from Ministry of Public Administration, Republic of Slovenia, delegates from the European Commission, and representatives of the Regional Cooperation Council (RCC), BEREC, EaPeReg, and FAO.

[1] https://itu.int/go/EUR-MC-2021

Figure 1 - Virtual Group Photo

3. DOCUMENTATION

The Regional Forum was held virtually. Relevant documentation was made available in electronic form on the event webpage: https://www.itu.int/go/EUR-MC-2021

The workshop was supported with **captioning** facility and the edited caption text will be made available soon on the event page. **Video recordings** of the workshop, as well as this outcome report, are also made available on the website.

The event's Special Session on "Gendered Digital Divide "Digitally Empowered Generation Equality in the wake of COVID-19" has also been livestreamed on Twitter and YouTube bringing the total of viewers to around **200.** Proceedings are available at the links above.

4. OPENING SEGMENTS

Day 1

Opening address: Mr. Stephen Bereaux, Deputy Director of the Telecommunication Development Bureau, ITU

In his opening speech, **Mr. Stephen Bereaux,** Deputy Director of the Telecommunication Development Bureau, ITU, welcomed delegates by recalling that connectivity has become a fundamental cornerstone of our lives, but that this has unveiled significant connectivity gaps within and across countries and regions which have exacerbated pre-existing inequalities. On International Women's Day, he reminded that significant global gaps remain when it comes to connecting women and involving women in ICTs.

Mr. Bereaux also pointed to the work that the ITU is doing in the field of policy and regulation and infrastructure development to connect the remaining 89 million individuals who remain unconnected to the Internet, reminding how this must be complemented by demand-side policies focusing on uptake and meaningful engagement. Affordability remains the greatest challenge in this regard, followed closely by digital skills development, especially in rural areas.

Finally, Mr. Bereaux reiterated the invitation for all stakeholders to take active participation at this year's World Telecommunication Development Conference (WTDC-21) to be held in Addis Ababa, Ethiopia, in November 2021 and thanked those who engaged in the preparatory process through the Regional Preparatory Meeting for Europe, which was held on 18 and 19 January 2021. He thanked the Ministry of Public Administration of Slovenia for supporting the organization of this event whilst recognizing the significant progress of the country in the field of connectivity and wished a successful Slovenian Presidency of the Council of the European Union.

Opening address: H.E. Mr. Boštjan Koritnik, Minister of Public Administration, Republic of Slovenia

Following Mr. Bereaux's speech, **H.E. Mr. Boštjan Koritnik**, Minister of the Ministry of Public Administration, Republic of Slovenia, opened his remarks stating that 2020 taught that being connected is not a matter of choice or reference, but rather a necessity that enables attendance at school, productivity at work, and communication with the outside world. He also drew attention to the importance of connecting the unconnected prompted by the Covid-19 pandemic, which has accelerated digitalization and the need for improved connectivity that is inclusive, leaving no one behind.

His Excellency also reiterated the relevance of cooperation in the area of connectivity. Expanding the benefits of digital technology requires equal access, digital skills development and ensuring the inclusion of vulnerable groups, which also entails building trust and raising awareness on the benefits digitalization brings. Connectivity "needs to be inclusive and significantly contribute to social and cultural development".

Finally, the Minister drew attention to the Slovenian best practices in these fields such as the Smart Specialization Strategy, the Slovenian Digital Strategy and the National Programme on Artificial Intelligence and reminded that digitalization will be a priority of the upcoming presidency of the Council of the European Union taking place in the second half of the year. He thanked the ITU for its role in advancing the agenda on these important topics and wished all participants a successful event.

Remarks from the Regional Cooperation Council: Ms Majlinda Bregu, Secretary General, Regional Cooperation Council

Following the high-level opening addresses, **Ms. Majlinda Bregu,** Secretary General of the Regional Cooperation Council (RCC) took the floor reminding of the importance of human connection, which must be preserved in the virtual environment. In a world driven by digital technologies, the Western Balkans are still lagging behind global standards of advanced economies, despite the pandemic prompting a strong leap forward across the countries.

One recent achievement in the Western Balkans has been the Regional Roaming Agreement that brought significant reduction of costs and brought the region a step closer to the European Union. Ms. Bregu also reminded that Western Balkan countries are placing great emphasis on investments in broadband through the Western Balkans Investment Framework, which has 11 projects active on ICT investment, with a total investment of more than half a billion EUR.

Finally, Ms. Bregu concluded by reminding of other challenges the Western Balkans are facing in many areas relating to connectivity and expressed her hopes that the Digital Summit for the Western Balkans that is to take place in July, under the Slovenian Presidency of the Council of the EU, thoroughly addresses these challenges and advances the agenda.

Setting the context: Mr Jaroslaw Ponder, Head of ITU Office for Europe

Following high level interventions and remarks from the RCC, **Mr. Jaroslaw Ponder**, Head of the ITU Office for Europe and Chair of the event, delivered a short presentation setting the context for the Forum. In his presentation, Mr. Ponder stated that one of the primary objectives in the context of the ITU Regional Initiatives for Europe is for the Office for Europe to support countries and facilitate their efforts in developing high speed connectivity whilst ensuring a trusted and quality user experience. Mr. Ponder reiterated that the efforts in delivering products and services to the countries are supported by the Telecommunication Development Bureau undertaken at the global level and through the ITU-D Study Groups.

Concerning connectivity in the region, beyond drawing stakeholders' attention towards the many activities of the ITU in Europe, Mr. Ponder focused on two recent deliverables which have been prepared at the regional level to support the community in Europe with relevant information on connectivity development in Europe: the Report on "Digital Trends in Europe 2021", and the Report on "Status of Connectivity in 9 non-EU Countries of Europe Region". The first report presents in detail the recent ICT trends for the period 2017-2020 in the 46 countries of Europe region. This includes information on mobile market developments, satellite broadband developments, the fixed-broadband market, Internet access, use, skills and gender, ICT prices, telecommunication revenues and investment, cybersecurity, the collaborative regulatory paradigm, the maturity of ICT regulatory frameworks and the economic contribution of broadband digitization and ICTs to economic growth in Europe.

Building upon this information, the second report elaborates on connectivity indicators, while focusing on 9 non-EU countries of Europe region which are of primary focus for the ITU and in the context of the UN coordination mechanism. The report finds that there are significant gaps in terms of access, affordability and uptake compared to Europe region averages and suggests areas for intervention where the ITU, in cooperation with the UN coordination mechanism, may provide technical assistance.

These include: national broadband strategies, broadband mapping, last mile connectivity, IPv6, spectrum policy planning, frequency planning, and, overall, capacity building.

Finally, Mr. Ponder also drew attention to a series of other deliverables elaborated by the ITU which relate to connectivity. These are the Last Mile Internet Connectivity Solutions Guide, the Report on "Connectivity in Education: Status and recent developments in 9 non-EU countries of Europe region", the "Digital Skills Assessment Guidebook" and the Report on "Digitally empowered Generation Equality - Women, girls and ICT in the context of COVID-19 in selected Western Balkan and Eastern Partnership countries".

Day 2 - Special Session on Gendered Digital Divide: "Digitally Empowered Generation Equality in the wake of COVID-19"

Video message: Ms Doreen Bogdan-Martin

In her video message, Ms Bodgan-Martin, Director of the Telecommunication Development Bureau of the ITU stated that women need to be full and equal partners in the global digital transformation. She indicated that there was a significant digital gender divide and COVID-19 did not cause gender inequality but had served to exacerbate it. She further mentioned the work of the ITU in this area and its commitment to digital gender equality into action for more than 10 years with initiatives such as: annual Girls in ICT day is celebrated in 170 countries; the EQUALS global partnership has grown into a network of over 100 organizations worldwide; the EQUALS EU group works to promote equity and social innovation; the new Network of women programme to promote more gendered balanced participation in WTDC-21. She thanked the UN Women team for joining forces with the ITU to launch the report and welcomed ITU stakeholders to read it and implement its recommendations.

Opening Remarks: Alia El-Yassir, UN Women Regional Director for Europe and Central Asia

In her opening remarks Ms El-Yassir, UN Women Regional Director for Europe and Central Asia stated that it was expected that the pandemic had a disproportionate impact on women and girls. She stressed the need to make sure that women and girls are leading and engaging in decision making and public life. She mentioned the importance to have a more equal, just, and secure future for all to accelerate action towards achieving gender equality by 2030. Ms El-Yassir mentioned that discussions like the one today, are so important: they are needed to pinpoint actions requiring further acceleration and how to make them happen. During her opening remarks she stressed on the importance and great potential of technology for ensuring faster and fuller promotion and enjoyment of all human rights, including women's rights. Without women and girls accessing and fully using technology, they will be left behind, failing the ambitions for sustainable development. This is an urgent agenda, now more than ever, as Covid-19 has led increased dependence on the use of ICTs for work, school, social activities, and political engagement. Technological change is not gender neutral; women and girls face higher exposure to violence and abuse in technology-enabled spaces, which needs to be considered. She called for the need to work collectively, collaboratively, and responsibly to make sure that we understand all aspects of the issues when it comes to addressing the digital divide, using platforms such as generation equality initiative and the actioned coalitions. She mentioned the importance of the launch of the ITU, UN Women study and the implementation of its recommendations.

Opening Remarks: Jaroslaw Ponder, Head, ITU Office for Europe

Mr Jaroslaw Ponder, Head of the ITU Office for Europe launched the study on the "Digitally Empowered Generation Equality in the context of COVID-19. He informed the audience that the study focuses on the digital divide occurring in 5 Western Balkan states (Albania, Bosnia and Hercegovina, Montenegro, North Macedonia, Serbia) and 3 Eastern Partnership countries (Ukraine, Georgia, Moldova). The study aimed at identifying key factors and trends in the participation of women in the digital sector in education, career, and entrepreneurship at the national level. It concludes into country specific recommendations to develop a set of national initiatives fostering participation of women and girls in the ICT sector. The study was developed under the umbrella of Regional initiative for Europe within the framework of "Accessibility, affordability and skills development for all to ensure digital inclusion and sustainable development". ITU is committed to implement objectives that are paving the way to sustainable development and the achievement of the Sustainable Development Goals (SDGs), especially SDG 5 on gender equality and 10 on reduced inequalities.

Opening Keynote: Ajda Cuderman, State Secretary, Ministry of Economic Development and Technology, Slovenia

State Secretary H.E. Ms Cuderman indicated in her opening keynote that the recommendations included in the study will contribute to foster participation of women and girls in the ICT sector. She shared Slovenia's engagement in the preparation of the national review. She indicated that the 2030 agenda and the national review process call upon all to see where we stand, what has been done and what challenges need to be tackled to move forward to prosperity and well-being of everybody. Additionally, she stated that on the basis of the national review, Slovenia prepared a national development strategy and aligned all the SDGs of the 2030 agenda with its national priorities and targets. The State Secretary shared some of the challenges for girls and women when it comes to ICTs and that gender-based barriers preventing girls and women from accessing and utilizing technology and digital use exists. She indicated the importance of the role of the government to equip girls and young women with digital skills through prioritizing education in ICT subjects. This is the only way for girls and women to thrive in the economy, where the routine work has been automated and digital skills are valued.

5. Conference Sessions

Session 1: The Digital Divide in Europe: Ensuring meaningful and inclusive connectivity

Focus: How connecting the unconnected is not only an infrastructure development question but also a socio-economic challenge.

Moderator: Mr. Jaroslaw Ponder, Head of ITU Office for Europe, ITU

Speakers: Presentation 1, **Mr. Dan Sjöblom**, EaPeReg Vice Chair 2021, outgoing BEREC Chair 2020 and Director General of the Swedish Post and Telecom Authority (PTS), Sweden; Presentation 2, **Mr. Peter Grum**, Acting Director-General, Directorate for Information Society and Informatics, Ministry of Public Administration, Republic of Slovenia; Presentation 3, **Mr. Mehmet Özcan**, ICT Expert, Information and Communication Technologies Authority (ICTA), Turkey; Presentation 4, **Mr. Christoph Steck,** Director of Public Policy and Internet, Telefonica SA; Presentation 5, **Ms. Eleanor Sarpong**, Deputy Director and Policy Lead, Alliance for Affordable Internet (A4AI), World Wide Web Foundation.

Key points

- The COVID-19 pandemic has served to underlie the need for robust and sustainable digitization. The pandemic recovery presents a golden opportunity for digital transformation that must not be missed.
- Connecting the unconnected is not only an infrastructure issue, but also a socioeconomic challenge that must be kept high on the agenda. Governments hold the keys to many of the measures that can close the digital divide, from funding to regulation.
- The reason people are unconnected is diverse. These reasons include affordability of connection and devices; a lack of knowledge (especially with elderly populations and language barriers); legal issues (such as the necessity to have a bank account for some connectivity subscriptions); and a lack of awareness about the benefits of being connected. There is, therefore, not one solution. However, there is a large role to play for organisations such as ITU, EaPeReg, and BEREC to act as knowledge resources and share experiences.
- The current digital agenda of the Eastern Partnership, for the period until 2025, focuses on a on number of objectives including: the promotion of affordable, high quality connectivity; the empowerment of NRAs for effective competition and coordination of spectrum allocation; the reduction of roaming charges; and the expansion of Gigabit broadband infrastructure for research and education.
- Governments and other stakeholders must consider whether they have done enough to provide their population with equal opportunity in the digital world. Demand-side strategies are vital to complement supply-side connectivity provision. It is, therefore, imperative to raise e-skills and e-competences in order to foster demand for internet services.
- Broadband infrastructure for internet access is a key factor of social and economic development, and COVID-19 has shown that connectivity is essential for businesses and people in Europe. The construction of such infrastructure is in the public interest.
- Slovenia is ranked 16th among all E.U. Member States by the Digital Economy and Society Index (DESI) for the overall ranking in 2020, as well as 16th in the category of connectivity. There are

currently approximately 867,000 households in Slovenia, 77% of which have a next generation of fixed network connection (30 Mbps or higher). This leaves a gap of about 200,000 households without such connections, dispersed because potential private investors recognize the dispersed nature of rural populations as a key obstacle in creating sustainable business models.

- The 2025 Gigabit Society Strategy recognizes gigabit connectivity as a major driver of socio-economic development. It thus calls for continuous 5G coverage for all urban areas and all major land transport routes, as well as internet access at speeds of at least 100 Mb/s for all households.
- The digital divide is multidimensional and contains two main aspects: supply-side issues and demand-side issues. These include affordability, lack of ability to use digital services and technologies, lack of awareness of opportunities or of the benefits of being connected, and concerns regarding privacy and security, from a demand-side perspective, as well as lack of availability of services from the supply-side perspective.
- Women, low-income groups, the rural population, people with disabilities, and those with low education levels are those most impacted by the digital divide. Solutions need to target these marginalized groups, and connectivity initiatives should be integrated in all social and economic development agendas.
- Turkey's "*Internet Bizden,*" initiative aims to increase broadband penetration with low prices, specifically targeting those who terminated subscriptions for at least three months or never had a fixed broadband subscription. It thus presents a demand-side solution to ensure that uptake to existing infrastructure is maximized. At the outset (in 2017), the plans were offered for free at the wholesale level and at low prices at the retail level: only 0.9% of median household disposable income in 2017. Since the implementation of the project, prices have remained low at both levels, and have accelerated fixed broadband penetration in Turkey by enabling new subscriptions.
- Two important initiatives in Turkey's ICT regulations include the obligation for operators with more than 200 000 subscribers to [1] give 25% discounts on all services for disabled people, and [2] provide data-only plans for the hearing disabled. More than 800 000 people in the Turkish market have already benefitted from these discounted rates. Such initiatives are essential, particularly as Turkey is one of the largest ICT markets in Europe, with more than 80 million total broadband subscribers.
- Telefonica's Digital Manifesto emphasizes the need to take a holistic and broad approach to achieve inclusive digitization, as well as the importance of out-of-the-box approaches to policy, regulation, and business models.
- Governments and NRAs must change policies to attract more private investors. Public subsides can help, but key investments in ICT infrastructure development to foster meaningful connectivity need to come from the private sector.
- Europe has done well in opening up infrastructure, but the region must further engage in policy and regulatory innovation in order to in attract new investments and connect potential investors with infrastructure possibilities. One such example from Europe region is Spain's achievement of the "fibre miracle," whereby Spain went from a regional laggard in fibre connectivity to a global leader through incentivizing investment.

- As an example of regulatory innovation in the context of 5G, where any euro spent in auctions for spectrum allocation is a euro sacrificed on infrastructure investment, new auctioning models should be taken into consideration.
- One of the first instances of OpenRAN implementation was the *Internet Para Todos* project in Peru, in partnership with Facebook. This project demonstrated the fact that low-medium income countries are great places to innovate, as they also involve the innovative financing of international development banks.
- In the wake of the COVID-19 pandemic, recovery funds make possible innovations in the digitization of public services and the use of data in e-governance, neither of which were extensively deployed during the initial pandemic response. SMEs must also be aided in their quest to digitize, as they lag behind in digitization.
- The Alliance for Affordable Internet (A4AI), an initiative of the Web Foundation, is the broadest technology alliance working to drive down the cost of broadband by coalitions with the private sector, civil society and governments.
- Europe is doing very well across the board when it comes to 4G connectivity, and many countries have met affordability targets. However, there remain significant populations of Europe that are unconnected. For example, 36% of the population in Central and Eastern Europe is unconnected, compared to 19% of Western Europe. In addition, 42% of 3 to 17-year-olds in Eastern Europe and Central Asia are unconnected at home, with clear impacts on educational outcomes and opportunities in the time of distanced education necessitated by the COVID-19 pandemic. As the Internet is a lifeline, it is crucial to develop policies and regulation that address these significant gaps and stop the digital poverty evident across Europe.
- The gendered nature of the digital divide is also evident, as women make over 60% of the European employees, but only 17% of the ICT workforce. There is, therefore, much work to be done in the area of STEM to both empower women and raise awareness that women are equipped with the skills in order to compete.
- The A4AI advocates for a strengthening and specification of the definition of "meaningful connectivity" to involve those who can use the internet every day, using an appropriate device, with unrestricted data and a fast connection (4G is used a proxy for acceptable levels of connection speed).
- The quality of connection and quality of device, as well as gender, are embedded in the definition of meaningful connectivity, and such reconsideration has concrete impacts on analysis of connectivity. For example, the connectivity gender divide is only 1% in Colombia, but applying the A4AI's meaningful connectivity target, it becomes 19%, indicating that although women are accessing the internet, they are probably getting poorer quality access and devices than their male counterparts.
- In order to fully close the connectivity gap globally and provide connectivity to all, it would take an investment of 428 billion USD, a figure commensurate with the amount spent annually on carbonated beverages. In Europe and Central Asia, required investment totals to 34 billion USD. But infrastructure alone is not sufficient; demand-side issues such as unaffordability of connection, lack of digital skills, and the gendered gap in skills must be targeted.

SESSION 2: CONNECTING RURAL AREAS IN EUROPE: REGIONAL AND NATIONAL APPROACHES

Focus: Closing the service divide in rural areas in Europe through last mile connectivity and other projects.

Moderation and Setting the Context: Mr. Istvan Bozsoki, Head of the Telecommunications Network & Spectrum Management Division (TNS), Telecommunication Development Bureau (BDT), ITU

Setting the Context: Presentation, Ms. Aminata Amadou Garba, Technology Coordinator, Telecommunications Network & Spectrum Management Division (TNS), Telecommunication Development Bureau (BDT), ITU

Speakers: Presentation 1, **Ms. Sophie Treinen**, Information and Knowledge Management Officer, Regional Office for Europe and Central Asia, FAO; Presentation 2, **Mr. Dominic Hayes**, Spectrum Management and International Relations, Directorate-General for Defence Industry and Space, European Commission; Presentation 3, **Ms. Eka Kubusidze**, Head of Telecommunications, Information and Modern Technologies Department, Ministry of Economy and Sustainable Development, Georgia; Presentation 4, **Mr. Genaro Cruz**, Senior Market Engagement and Advocacy Manager, GSMA; Presentation 5, **Mr. Joe Barrett**, CEO, Global mobile Suppliers Association (GSA).

Key points

- At 83% connectivity, Europe is the region where you have the highest percentage of the population connected. Relative to Africa and Asia-Pacific—where about 30% and 45% of the population is connected, respectively—Europe is undoubtedly a global leader. However, across all regions, most of the unconnected population lies in rural areas.
- The ITU Last-mile Internet Connectivity Solutions Guide presents a four-step solution for closing the urban-rural digital divide involving the identification of areas in need, the consideration of various solutions, and the selection of an intervention best suited to the local context. Oftentimes, solutions are known; what is lacking are the interventions in terms of regulations and policies to ensure that solutions are sustainable.
- In working to ensure meaningful connectivity in more remote areas, assessing the suitability of options for rural deployment is essential to prevent bottlenecks. In selecting sustainable solutions, for example, one must consider affordability, usage, financial viability for operators and structure. However, affordability cannot just remain at the national level; stakeholders and development partners must investigate the granular, localized context to investigate what is affordable for rural areas.
- Technological innovation is crucial for effectively harnessing digital agriculture for economic growth, as it can improve efficiency, reduce transaction costs, better manage risks, strengthen trust between actors, and facilitate both inclusion and access to finance.
- Some in Europe experience a “triple divide,” whereby the cross-cutting digital, gender and urban-rural divides compound on one another, making economic opportunity particularly difficult to access.
- The realization of the benefits of digital agriculture are also precluded by human challenges such as the rural generational divide—whereby young generations are leaving rural areas, and the farmer population is aging—and the fact that the majority of famers are small-scale, which

may prevent of new digital technologies. In Europe, small-scale farmers are often excluded from policy incentives and rural services showcasing the benefits of digitized agriculture.

- The rural digital divide is characterized by instable and irregular connectivity, poor quality of connectivity at the same price, increased demand yet low response from providers, and consequently, a low use of digital technology in the agricultural sector and in rural areas more broadly.
- Closing the urban-rural digital divide can take the form of assessments at the national and regional levels, projects, policy frameworks, and knowledge exchange. For example, joint ITU-FAO assessments, such as the "Status of Digital Agriculture in 18 countries of Europe and Central Asia" report, as well as ITU-FAO technical assistance on the development of national digital agriculture strategies help to ensure meaningful connectivity in rural areas.
- Ensuring meaningful connectivity in rural areas requires both supply-side and demand-side solutions. On the supply side, rural network coverage and availability to keep digital applications performing optimally are needed. On the demand side, digital skills and literacy programs are particularly crucial for smallholder farmers.
- In 2020, the European Commission announced ambitions for launching a third major space project to enhance connectivity through a constellation of satellites in low-Earth orbit, making it possible to put an end to so-called "coverage dead zones" in the European Union. The project aims to ensure European strategic autonomy, resilience and technological sovereignty; strengthen the E.U.'s global leadership; fuel an innovative, competitive European industrial ecosystem and support European security.
- Security is becoming increasingly important for private consumers as well as governments, so having secure connectivity even for mass market applications is vital.
- Satellite developments in connectivity have the potential to add value globally, as well as support and enable disruptive technologies in Europe, such as 5G and 6G, backhaul edge delivery, edge computing delivery, 5G on the move, quantum encryption, AI, GAIA-X, the Internet of Things, common computing, smart mobility and smart agriculture.
- The COVID-19 pandemic has served to emphasize the importance of connectivity and the necessity of broadband development in the digital era. Particularly as the right to access the Internet is enshrined in the constitution of Georgia, a main priority of Georgia is the development of the digital economy; however, ensuring connectivity is an inherent prerequisite to the development of the digital economy.
- Georgia stands as an example for regional partners about how to close the digital gap between urban and rural areas by bringing connectivity to rural zones. 90% of Georgia's territory is covered by 4G services, and 99% of the Georgian state is covered by 3G internet.
- Within the framework of the EU4Digital programme, Georgia has developed a national broadband development strategy for Georgia and an implementation action plan for 2020 - 2025 have been developed and adopted by the Government of Georgia last year.
- With the support of the World Bank in the context of the "Working Georgia Project," Georgia has implemented a strategy to increase access to affordable internet and to promote the use of broadband-enabled digital services. In order to achieve these goals, Georgia plans to build 5,000 kilometres of fibreoptic infrastructure in rural areas and thus provide 170,000 households and 585,000 inhabitants with at least 100 Megabit per second and at least 1 Gigabit per second internet, respectively.

- The government is drafting a new law on infrastructure sharing which is elaborated in full accordance with the European Union Broadband Cost Reduction Directive (BCRD). The draft will consider matters such as passive sharing, which are expected to create conditions for more cost-efficient network deployment.
- Connecting the unconnected consists of two interrelated gaps: the coverage gap and the usage gap. Although infrastructure remains an issue, connecting the unconnected increasingly means closing the usage gap. For example, only about 15%, or approximately 600 million of those unconnected are *not* covered by either a 3G, 4G, or 5G mobile network. The remaining 85% comprise the uptake and usage gap.
- There are five main barriers to digital inclusion, according to GSMA: [1] Access (to connection, handsets, electricity, formal IDs, etc.), [2] affordability, [3] relevance, [4] knowledge and skills, and [5] safety and security.
- GSMA's Mobile Connectivity Index, takes into account multiple barriers to mobile Internet access across 170 countries and four key enablers of connectivity: infrastructure, affordability, consumer readiness, content & services.
- Without granular data about where the unconnected reside and where investment is needed, private investment cannot be mobilized. Therefore, it is imperative to develop hyper-granular data coverage systems to target investment, such as the GSMA Mobile Coverage Maps.
- The goal of mobile operators regarding 5G is to be granted large, continuous amounts of harmonized spectrum across low, medium, and high bands. Operators are, therefore, working with local regulators and policymakers to help ensure the release of said bandwidth.
- 5G must be channelled to provide connectivity to rural communities through innovative spectrum management and technologies. Naturally, low bands provide extremely good coverage into rural areas, but mid-bands and high bands can also prove suitable to bring mobile broadband to rural areas and bridge this digital divide. For example, localized high frequency, high band spectrum can be used with new techniques and antenna technology, such as beam forming, to provide fixed wireless access into the rural community and connect the 4 billion subscribers still unconnected, at lower cost.
- Fixed-wireless access (FWA) is one cost-effective solution to closing the rural infrastructure gap. LMLC, or "low mobility large cells," can be mobilized to provide service to rural areas without fixed broadband coverage, because lack of coverage in many distant areas derives from a lack of profitability for operators of fixed broadband infrastructure. Globally, the FWA ecosystem is growing, with 800 FWA networks active in more than 165 countries.
- The Global Suppliers Association acts as a catalyst in the area of FWA through the GSA 4G/5G FWA Forum which counts 32 members, which are also active in 3GPP standardization process. GSA has recently released the 4G-5G FWA Devices Ecosystem Catalogue which maps companies and products in the FWA ecosystem.

SESSION 3: USE OF ICTS IN PUBLIC INSTITUTIONS: A FOCUS ON CONNECTING SCHOOLS

Focus: Ensuring efficient use of ICTs in educational systems as a best practice for meaningfully connected societies.

Moderator: Mr. Jaroslaw Ponder, Head of ITU Office for Europe, ITU

Setting the context: Presentation, Mr Julian McNeill, Consultant, ITU Office for Europe, ITU

Speakers: Presentation 1, **H.E. Milan Dobrijevic**, Acting Assistant Minister, Ministry of Trade, Tourism, and Telecommunications (MTT), Republic of Serbia; Presentation 2, **Mr. Ihar Shchetko**, Giga Project Coordinator in Central Asia, ITU; Presentation 3, **Mr. Marcin Łukasiewicz**, Senior Specialist, Telecommunications Investment Unit, Chancellery of the Prime Minister, Republic of Poland; Presentation 4, **Mr. Tomi Dolenc**, Head of User Communication, Academic and Research Network of Slovenia (ARNES), Republic of Slovenia; Presentation 5, **Mr. Jan Buis**, Vice President Business Development, LANCOM Systems (Rohde Schwarz).

Key points

- The interplay between the policy areas of education and telecommunications has become ever more relevant due to COVID-19, with connectivity becoming the cornerstone of many aspects of education. For this reason, the ITU has developed a background paper on "Connectivity in Education: Status and recent developments in 9 non-EU countries of Europe region".
- In 2019 in schools, there was an average of 0.15 PCs per student, compared to an average of 0.77 per student for OECD countries. It is estimated that 15 million PCs are needed to fill the gap. Better data on these indicators is also needed to better understand the issue and intervene efficiently.
- Some countries have established minimum requirements for ICT equipment, but connectivity remains a challenge from a financial, technical and logistical perspective. ICT ministries tend to prioritize financing infrastructure for all households while in rural communities starting from schools may be more efficient.
- Innovative financial mechanisms exist to help connect schools (WBIF, EIB, EBRD, WB), but such opportunities have not always been captured by education systems in the past. ITU and UNICEF are committed to fill this gap through the Giga project aimed at connecting all of the world's schools.
- Pedagogic responses to the COVID-19 pandemic have been primarily based on broadcasting on national TV, nationwide online educational programmes, or replication of classes in the virtual environment. But in 2019, still 18 million households, or 41% remained without a PC at home, while 11 million households, or 25% did not have Internet access at home, thus exacerbating inequalities.
- There is a need for strategic policies fostering connectivity and the fruition of devices in schools and households. This would foster (i) the use of ICTs as a tool for efficient public administration in education, (ii) as media to ensure continuity of digital services in education, and (iii) as an integral part of education curricula to create a workforce fit for the job market.
- The Connected Schools Project of the Republic of Serbia was initiated by close discussion between the Ministry of Trade, Tourism and Telecommunication and the Ministry of Education, already in 2014. It seeks to (i) equalize educational opportunities bridging the urban-rural divide, (ii) create the necessary infrastructure environment for development of connectivity services aimed at educational institutions, (iii) foster overall national competitiveness in the digital age, and (iv) achieve a higher level of safety.
- The solution works through WAM connectivity to the Academic Network of the Republic of Serbia (AMRES) which is set to connect more than 2270 units by the end of 2021. It is also based on backbone upgrades which are key to ensuring necessary bandwidth.

- WAM will be complemented by WLAN infrastructure established to cover all institutions (principal schools and detached school units). The first phase of the project focused on piloting has been realized in 2018 and phase 2 has been realized in 2019 and 2020, benefitting of a 40 million EUR budget from the Ministry.
- The third phase of the project, which is financed by the European Investment Bank for 28 million EUR, seeks to connect the remaining 950 units, impacting 250,000 students and 16,500 classrooms. The practical functioning of the network will be based on SSID, which will grant access to the entire network and empower teachers and educators to create one-time accesses to WiFi for students.
- In addition to the Connected School project, 1.7 million EUR from the WBIF is aimed at a new rural broadband incentive project which is going to cover approximately 600 settlements in Serbia with close to 1 million neighbouring household. Those 600 settlements in the first phase are also those covered by phase 3 of the Connected Schools projects.
- Giga is an initiative aimed at connecting every school in the world to the Internet, and every young person to information, opportunity and choice. Giga targets unconnected and under connected schools and, by reflection, communities, as schools can serve as area nodes.
- Giga consists of four pillars: mapping schools to identify connectivity gaps, connecting schools, building affordable and sustainable financing models, and empowering individuals through the provision of digital public goods.
- Through the use of questionnaires and GIS tools, Giga collects school datasets and infrastructure datasets, in order to identify unconnected and under-connected schools and communities and estimate required bandwidth and technological solutions
- Through the use of market research and proxy-based estimates Giga computes the connection economic parameters which feed into the school and infrastructure mapping to estimate OPEX and CAPEX, potential income, TCO, and NPV depending on the technology chosen. This is carried out through the broadband diagnostic tool, an open-source tool that is being currently piloted.
- With this information then Giga can then create accurate topology maps that already take into account efficient distribution of resources and can support decision making and project design. The system is being fine-tuned but application of the LMC Guide, and the broadband diagnostic tool will require training for policymakers and sharing of best practice databases.
- Finally, Giga also seeks to also create a real time monitoring system integrated with EMIS data to measure traffic usage and improve the learning process.
- The Nationwide Education Network (OSE) provides Internet access services of at least 100 Mbps symmetrical, advanced cybersecurity measures, and assistance to digital skills' development via a virtual network based on dedicated core and leased lines on a voluntary basis in Poland. This covers 22,500 schools, 600,000 teachers and 5 million students.
- The project started in 2016 with a comprehensive overview of the conditions of Polish schools regarding physical equipment, which found that 10% of schools did not subscribe to services because there were no services to which to subscribe. Even in Warsaw, some schools did not subscribe to any form of Internet service.
- Many questions emerged in the design of the project with regards to its scope (e.g., focus on digital skills or infrastructure solely). Following consultation and feedback from stakeholders, it was decided to create the network first and then to offer access services, cybersecurity and digital skills programmes. A legal basis was created, and the project took three years to complete.

- One of the main features is that the Core network is also a security system which guarantees the safety of OSE itself and the data of each end user who uses OSE. The OSE core consists of 16 regional nodes and three central nodes, as well as redundant links, ensuring that services always find their path, regardless of any localized infrastructure breakdowns.
- An initial investment of 130 million EUR and 100 tasks were necessary to deploy the network, which has then been leased to operators through 55 line-lease contracts. Around 25 million EUR annually are needed to maintain the leased lines.
- The result of the project is that Poland went from 10% of schools without access to internet in 2017 to all schools having access to Internet (mostly fibre optics) in 2021. 20,000 schools subscribed to OSE, with 18,000 already benefitting of OSE services. 2000 services are being activated and 2000 schools may still subscribe to OSE.
- Regarding service monitoring, it is centralized and can be done to the level of the individual school. This also proved very useful in the context of the global COVID-19 pandemic. OSE purchased 73,000 end user devices (12,800 laptops and 60,000 tablets) in response to COVID distanced learning, which were provided to children most in need
- ARNES (National Research and Education Network of Slovenia) has been advocating for connectivity in schools for years, and in particular for providing fibre to every school in Slovenia. In this context, ARNES supported the Ministry of Education in project design and access of EU funds in 2015 for a project aimed at bringing dark fibre from operators to schools. This was also complemented by another project aimed at developing WLAN capabilities in school, still centrally managed by ARNES.
- Results have been observed in 2020 during school closures, given a 100x increase in usage during the pandemic. 54,000 virtual classrooms and 50,000 concurrent videoconferences were organized per day. To cope with demand, there was an infrastructure and service scale-up and also support/training and education.
- ICTs used to be “optional” in schools. But now there is a concrete need for training. This entails not only mastering tools and ICT, but also new methods of work process and workflows. Distanced education also provides challenge with schools in the home and vice versa. Service providers such as ARNES must have a role in tackling such challenges.
- There is a need to consider investments and funding, of course, but it also takes human effort and support, which is a critical and missing piece of the puzzle on enabling technologies for school connectivity, especially as a new normal will be delivering hybrid connectivity. The digital divide must be nuanced to understand and ensure equal learning opportunities and ensure funding is sustainable.
- WiFi access in schools varies greatly across Europe region, with 100% of Danish schools having WiFi access, but only 26.2% of German schools having WiFi access prior to the onset of the COVID-19 pandemic. This disparity, in turn, impacted the pace and quality of digitalization for distance learning.
- Bringing digitalization to populations and the digital learning curve is not currently happening at the school level. At present, most digital skills are learned outside the school organization. Therefore, a comprehensive digital skills and digital language curricula must be integrated into national education strategies from primary school. For example, primary-level digital education should focus on the usage of digital devices; middle school-level digital education should emphasize digital communication and collaborative learning, structured presentations, critical use of digital media, and identifying good and reliable sources; and secondary-level digital education should prepare students for either university or careers, and for working with modern presentation techniques.

- Digital education had been neglected in pre-pandemic years, and this has prevented modern teaching that promotes professional and social competencies. In countries which have most neglected it, there is a need not only for connectivity, but for specialized IT equipment to establish digital competences programmes.
- In Germany, for example, the Digitalpakt Schule is addressing this gap through more than 7 billion EUR in funding (approximately 525 EUR per pupil) over the 2020-2025 period, which will impact 33,000 schools in the country. Other initiatives worth mentioning are the cases of Slovenia, Luxembourg, based on the Eduroam programme, and Austria, which is under implementation.
- The modern reframing of digital education as "education to digitize" must be incorporated into the DNA of policymaking.

SESSION 4: FOSTERING DIGITAL SKILLS DEVELOPMENT: SUPPORTING DEMAND CREATION FOR CONNECTIVITY

Focus: Empowering individuals in leveraging connectivity and digital technologies supporting social and economic development.

Moderation and Setting the Context: Presentation, Ms. AnaMaria Meshkurti, Programme Officer, ITU Office for Europe, ITU

Speakers: Presentation 1, **Ms. Lidia Stępińska-Ustasiak**, Deputy Director, Department of Foreign Affairs, Office of Electronic Communications (UKE), Republic of Poland; Presentation 2, **Mr. Marcin Krasuski**, Government Affairs and Public Policy Manager, Google.

Key points

- In order to properly and meaningfully leverage connectivity, digital skills are a necessity. Digital skills are also becoming increasingly vital in many industries due to the transformative role of digital technologies which have become mainstream in all sectors. Three publications from the ITU are central to the conversation about fostering digital skills in order to meaningfully leverage connectivity toward socioeconomic development.
- First, the Digital Skills Assessment Guidebook serves as a comprehensive, step-by-step tool for national digital skills assessment through determining the existing supply of a digitally skilled cohort at a national level; assessing skills demand from industry and other sectors; identifying skills gaps; and developing policies to address future digital skills requirement.
- Second, the Digital Skills Toolkit guides national strategies for developing digital skills by converting complexity into manageable tasks and including examples of programmes and frameworks from around the world to serve as models and inspiration.
- Third, the annual Digital Skills Insights publication puts together scholarly articles with a focus on capacity building and skills development in the digital era.
- As the market regulator, UKE has a mandate and responsibility going beyond infrastructure, services, and the ensuring the quality of internet provision. It also seeks to equip people with skills necessary to meaningfully connect with digital services: keeping people not merely online, but also safe and active online.

- In order to keep children and teenagers safe online, UKE launched two campaigns: "I Click Sensibly" and #KeepCTRL. The "I Click Sensibly" campaign was launched in 2017 with elementary-aged students, and consisted of discussions on issues such as passwords, trust online, hate speech, technology addiction, and gaming. It involved 6,000 lessons launched for 158,000 children. The #KeepCTRL campaign is based on films that provide the grounds for discussion with teenagers regarding hate and hate speech, sexting and sextortion, patostreaming, online challenges, as well as FOMO, MOMO, FOJI, and JOMO.
- The COVID-19 pandemic forced a reconsideration of digital skills strategies and revealed additional gaps. For example, digital skills training is not currently aimed at particular groups of professionals; rather, strategies are often based on divisions of age or other demographic criteria. Therefore, it is vital to supplement existing digital skills training with initiatives *tailored* to specific jobs.
- Execution, implementation, and collaboration on digital skills programming are crucial. Developing vague strategies is important, but without cross-sectoral collaboration, stakeholders cannot ensure the achievement and deepening of meaningful connectivity particularly with upskilling. We can understand what is necessary only in the situation of cross-sectoral dialogue.
- Before the COVID-19 pandemic, a McKinsey report said that, in Central and Eastern Europe, digitization alone could add over 200 billion EUR to GDP by 2025. But the pandemic catalysed a rapid acceleration of digitization, with technology use "leaping forward" three to four years in a period of only three months. At the peak of the pandemic, there were almost 12 million new users of online services in Central and Eastern Europe. In Poland alone, the number of people who used at least one Internet service jumped from 66 to 78%, indicating 3.6 million new users of digital technology in Poland since the onset of the pandemic.
- Google is striving to reach partnerships in order to restart the economy, focusing on three major types of initiatives: skills, tools, and rules. Regarding the fostering of digital skills, Google has partnered with the Government of Poland on series of trainings entitled "Designers of Innovation," which teach how to use creative skills and collaboration to solve real world problems. They are also paying for over 100,000 people to complete training and receive professional Google certifications that will translate into digital jobs, 50% of which are reserved to those from underserved communities. In the realm of tools, Google focuses on helping SMEs digitize, as they create 85% of new jobs. And Google also works with governments and communities to ensure that rules enable innovation and rapid recovery.
- It is estimated that 65% of pupils now in schools will work in positions that, today, do not exist. Similarly, in a study commissioned by Google, McKinsey estimated that the most demanded competences for employees in the future will be digital and technical, with such demand increasing by 90% in the next 10 years. We thus need to educate children for the job market of the future.
- In Poland, Google will soon open a Cloud Region in partnership with a domestic cloud provider to help Polish businesses digitally transform in a futureproof way.

SPECIAL SESSION ON DIGITALLY EMPOWERED GENERATION EQUALITY IN THE WAKE OF COVID-19

Setting the context: Digitally Empowered Generation Equality Report Launch

Focus: Short discussion of key findings and recommendations of the Digitally Empowered Generation Equality Report by Youth panellists.

Moderator: Ms. Belma Kucukalic, Bosnia and Herzegovina

Speakers:
Ms. Eljona Avdo, European Youth Envoy, Generation Connect, Albania
Ms. Andreea Barbu, European Youth Envoy, Generation Connect, Romania
Ms. Zerina Mandžo, IT Girls Project Officer, UN Women

Key points

- The session's speakers, youth representatives from the report countries, shared key points and recommendations from the report on Digitally empowered generation equality, the advance copy of which can be accessed here.
- Gender equality and the challenges that women face is one of the key chapters of the report. In all the countries, women suffer from brain-drain, gender gaps within the ecosystem, storage of qualified workers, a lack of maturity of innovation ecosystems and companies not having a culture of support of the acquisition of women employees.
- The percentage of women working in STEM environments is low: Bosnia and Herzegovina 29%; North Macedonia 27%; Serbia 14%; Ukraine 24% and Georgia 12%. Moldova 31%.
- Regarding the topic of women leaders, the statistics are even more alarming: the numbers diminish with women being founders or leaders. 19% of women managers in Montenegro: 16% of women founders in Moldova. We do not see women be encouraged to found companies and take on loans.
- With regards to education, during COVID-19, many girls and women had difficulties to study because they did not have access to digital devices; women were also the ones found to have to share devices with their children for their schooling.
- Some of the recommendations of the report shared were that: benefits given by companies should also be targeted towards women; there is no exact data for the gender situation, and this should be gathered; women should be offered upskilling and reskilling programmes to evolve in the ICTs; girls and women have a hard time starting a job, so extracurricular STEM programs for girls would be key.
- Digitalization is all around us. ITU, UN Women and EQUALS made a huge step by publishing this report and discussing this topic.
- To change the situation, there is a need to search for barriers as only after proper identification, responses can be found. From June 2019 UN WOMEN conducted research when it comes to education and career choice in ICT and STEM fields. Even a small change can have an impact on decisions made and the actions taken.

- All individuals are surrounded by a bubble of people, and by several close friends. If behaviour, views, thoughts of one person from that bubble are changed. the thoughts of the whole bubble can be changed.
- As we try to motivate more girls to enter ICT, we must think about all the challenges they face online. The COVID-19 had led to an increasing use of digital platforms not just for personal use but for education as well, and for many young people this might be the only contact they can have with their peers.

Panel discussion

Focus: An interactive panel discussion on concrete steps to deliver transformative change for women and girls using ICTs with particular focus on the Europe region.

Moderator: Jaroslaw Ponder, Head of the ITU Office for Europe

Speakers:

Presentation 1 **Ms. Mariam Lashkhi**, Member of the Parliament of Georgia, Presentation 2, **Ms. Tamara Dancheva**, International Relations Manager, GSMA, Presentation 3, **Ms. Babou Olengha-Aaby**, Founder & CEO of the Next Billion, Presentation 4, **Ms. Priyanka Banerjee**, CEO and Co-Founder, BusinessWiz, Presentation 5, **Ms. Emilija Stojmenova Duh**, Assistant Professor at the Faculty of electrical engineering, University of Ljubljana

Key points:

- Of the 781 million illiterate people in the world, 2/3 are women. Of 7 million people working in ICTs, 30% are women. Only 6% of CEOs at the top 100 global tech companies are women. Gender equality in the ICT would open a market of 50-70 billion USD.
- ICT is an enabler for jobs and exponential growth. The COVID-19 crisis has not only highlighted the critical role of ICTs for continued functioning of societies but has also brought to the fore the startling digital inequalities between and within countries.
- Georgia introduced regulatory incentives in the public sector and advocates to transfer this good practice to the private sector.
- In Georgia, the are 44% of female STEM college graduates and two key concepts are introduces as follows: FemTech (applied to software, products and services that use technology often to focus on women related industry and women's health) and Mumpreneurship (the creation of a new business venture by a woman who identifies as both a mother and a business woman).
- Addressing the digital gendered divide is impossible by just addressing one issue. Access to mobile phone can be a lifeline particularly for women and girls who tend to be marginalized. GSMA Connected Women aims at tackling the mobile gender gap in access, when it comes to access to mobile phones and to mobile internet. Ultimate goals are to ensure that women have access to mobile technology and increase access and use; this would support the growth of the mobile industry and economy more broadly.
- Tech4Girls Initiative powered by EQUALS, focuses on reducing the gender gap in the mobile industry. It offers workshops for elementary to high school girls to educate and inspire interest in careers in STEAM studies. It increases the talent pipeline for girls in STEM. The initiatives preliminary impact to date: 94% of participants that completed the workshop had improved their understanding of STEAM and possible career paths within this field; 88% felt confident

about pursuing further tech studies/a career in tech; 70% had increased their knowledge of STEM career opportunities.

- lack of investment in women entrepreneurship, is because their businesses are not visible enough. The need for a place where anyone who wants to contribute to the growth of women entrepreneurship, and businesses can do so by searching for products and services that they need that are created and led by women.
- Sustainable transformation requires structural changes. Creating inclusive workplaces that will attract women and people from different backgrounds must occur through a pull effect, not a push effect, providing them with a culture of work where they can try to be themselves. Using digital innovations like data in science, data analytics, machine learning, to bring the future that we are envisioning faster is key.
- Digital technologies are important for women because they give access to: quality education and training, work and income, health and social care, and public services which give women a voice.
- Concrete steps towards achieving gender equality include: access to high speed broadband everywhere, anytime, raising awareness about ICTs, creation and delivery of digital public services, digital skill building and trainings for all.
- The speakers called for commitments that should be translated into action and the creation of long-term sustainable solutions to achieve gender equality must be put in place.

6. Background Papers & Reports

As mentioned throughout this report, two background papers have been prepared by the ITU Office for Europe in the fields of digital trends as well as in the field of connectivity. This material aims to identify trends in the region and facilitate the exchange of information across Member States, particularly the nine non-EU countries with UN Country Teams in the context of the UN coordination mechanism. The papers are living documents prepared by ITU experts. Inputs and comments from all stakeholders are welcomed in order to further strengthen the papers, which are currently in the review process, and therefore published as “living documents”. The links to both papers are made available below.

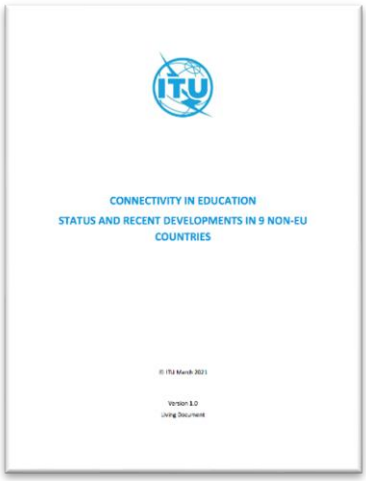

Figure 2 - Connectivity in Education: Status and recent developments in 9 non-EU countries

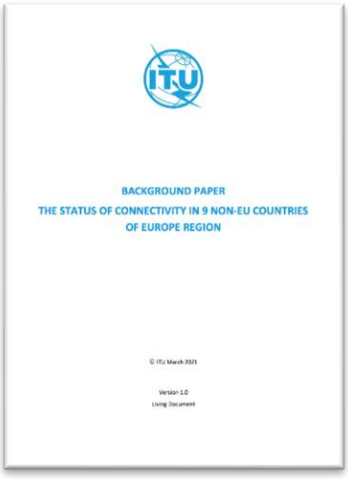

Figure 3 - Background Paper: The status of connectivity of 9 non-EU countries of Europe region

In context of the Special Session on Digitally Empowered Generation Equality in The Wake Of Covid-19, the advanced draft of the report on "Women, girls and ICT in the context of COVID-19 in selected Western Balkan and Eastern Partnership countries" has also been published. The link to the paper is made available below.

Figure 4 - Digitally Empowered Generation Equality: Women, girls and ICT in the context of COVID-19 in selected Western Balkan and Eastern Partnership countries

CLOSING REMARKS

Mr. Jaroslaw Ponder, Head of Regional Office for Europe, ITU, and Chair of the event, thanked participants and panellists and briefly summarized the excellent content emerged through the various sessions. In his closing remarks, Mr. Ponder echoed the discussions of the two days by reaffirming the importance of ensuring meaningful and inclusive connectivity to all and the importance that women and young girls play and must increasingly play in the ICT sector.

He also emphasized the importance of continuing the discussion in other meetings taking place in Europe in March and April, such as the UN Regional Forum on Sustainable Development for the UNECE region, where the ITU Office for Europe will also lead a "Cross-cutting session on Digitalization", as well as the upcoming ITU Regional Forum for Europe on Digital Skills, the ITU – European Commission Accessible Europe 2021 Forum, and the GSR+ Regional Regulatory Roundtable for Europe and Africa.

Finally, Mr Ponder thanked the Ministry of Public Administration of the Republic of Slovenia for the support provided for the event, organised by the ITU Office for Europe as implementation of Regional Initiative 1 on "broadband development, broadcasting, and spectrum management".