



GSR 2020

Leadership Debate

Resilient and secure digital connectivity for all: COVID-19 recovery and lessons learned for better preparedness and response

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OUTCOME REPORT

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1. INTRODUCTION

For two decades, the Global Symposium for Regulators (GSR) has played a central role in helping policy makers and regulators exchange and share experiences on the policy and regulatory issues shaping digital transformation and the evolution of ICT/telecommunications markets, such as evolving digital taxation frameworks, infrastructure sharing strategies, consumer trust issues, the blurring of demarcation lines between content development and network operation, network investment issues, and digital inclusion.

When GSR was launched in 2000, there were around 100 telecoms regulatory agencies worldwide. Today, close to 90% of countries worldwide have a separate ICT regulator, managing vital issues like spectrum allocation, operator licensing, and national network development. As ICTs increasingly underpin our digital economy, the broadening ICT landscape is increasingly becoming inextricably intertwined with that of other industries, from transportation and manufacturing to financial services, commerce, health, entertainment and much more. We are seeing this shift play out at ITU, where new, innovative players are joining top names in the tech business as ITU members, and attending GSR. It is clear that our actions and discussions need to go beyond the ICT sector to take into account the entire digital ecosystem.

Today, GSR has become the pre-eminent global meeting where regulators and policy makers discuss solutions to the many challenges arising from the rapid convergence of ICT services, and interact with private sector counterparts. And now, as the world struggles to manage the global COVID-19 pandemic, the role of ICTs in providing solutions has taken on an unprecedented dimension. Collaborative ICT regulation for digital transformation of economies and societies is growing steadily – and GSR is more important than ever.

The GSR-20 Leadership Debate was the first event in a series of virtual dialogues leading up to the first virtual GSR, to be held from 1-3 September and chaired by Mr Daniel Sjöblom, Director-General of the Swedish Post and Telecom Authority and the Chair of Body of European Regulators for Electronic Communications (BEREC).

2. OPENING ADDRESSES

Opening Remarks

Master of Ceremonies, Dr Eun-Ju Kim, Chief of the Digital Hub department, BDT, welcomed around 150 online participants to the first-ever virtual GSR event.

She began by inviting remarks from **ITU Secretary-General Houlin Zhao**, who noted the extraordinary success of the GSR platform and the importance of national telecommunication regulatory authorities in driving access to and uptake of ICT networks and services. In the midst of the COVID-19 pandemic, he said, regulators, policymakers, industry leaders and other key stakeholders need to come together to fast-forward the promise of the digital economy for everyone, everywhere. He noted that Internet use has jumped 70% since the onset of the pandemic, with communication apps, videoconferencing platforms and other digital tools playing an instrumental role in keeping commerce and societies connected, adding that the crisis has emphasized the need for increased collaboration, “be it through the Agenda for Action for Faster and Better Recovery of the Broadband Commission for Sustainable Development, or the Joint Digital Development Action Plan and Call for Action on COVID-19 Crisis Response agreed by ITU, the World Bank, GSMA, and the World Economic Forum.” He said the current

crisis has shown the fundamental importance of digital connectivity, but has also revealed the deep digital inequalities between and within countries. “We cannot continue business as usual, and must seize this moment to review our strategy and business models. To close this gap, I'm calling on regulators to work with investors, particularly operators, to create a better environment for investment in our infrastructure,” he said.

In her opening speech, **BDT Director Doreen Bogdan-Martin** welcomed delegates and celebrated the fact that the year 2020 marks the 20th edition of the Global Symposium for Regulators.

“I am very proud to have been on the team that created this event, two decades ago,” she said. “Back then, we recognized the urgent need for a global gathering where telecoms regulators – as they were known, back then – could meet to exchange experiences and put their heads together to develop effective strategies to regulate a complex and rapidly evolving sector that was also becoming increasingly critical to every nation’s economy. I am pleased that we had the foresight, 20 years ago, to recognize the importance of collaboration to the continued growth of the ICT sector. But it’s also true that none of us, back then, really understood just how critical access to digital technologies would become, and how profoundly they would reshape our whole world. “

She noted that with digital goods and services continuing to evolve at breakneck speed, regulators face a perpetual struggle to adapt regulatory ecosystems to unforeseen challenges. In the wake of the COVID crisis, with digital connectivity finally occupying its rightful place at the top of every nation's agenda, she stressed that GSR is more relevant than ever. “Getting the policy mix right to enable rapid growth in networks and services has never been so crucial, nor so urgent. ICT policy and regulatory frameworks need to be up-to-date, flexible, incentive-based and market-driven to support digital transformation across sectors, and across geographical regions,” she said, noting that 5th generation collaborative ICT regulatory measures and tools are the new frontier for regulators and policy makers as they work towards maximizing the opportunity afforded by digital transformation.

In his welcoming remarks, **GSR-20 Chair Daniel Sjöblom** told the audience that regulators need to collaborate more and more across industry, and more and more across borders, continuously updating the regulatory environment, fostering competition, empowering consumers and incentivizing investments to bring everyone online. “We need all of those elements if we want to unlock the real power of ICTs to improve on people's lives, and the COVID-19 pandemic has really put a spotlight on these issues,” he said. He noted that government leaders may never have been more receptive to how regulatory innovation can help them to leverage ICTs, building better, stronger, more robust societies in a post-COVID-19 world.

He also warned of new bottlenecks emerging, with cross-regulatory cooperation becoming increasingly important. The GSR best practice guidelines, he said, are very useful for the global community of ICT regulators in highlighting the best ways to encourage necessary investments, while protecting competition, security and privacy, and building robust digital economies that citizens trust.

3. LEADERSHIP DEBATE

The Leadership Debate around *Resilient and secure digital connectivity for all – COVID-19 Recovery and lessons learned for better preparedness and response* was moderated by Doreen Bogdan-Martin with a large number of distinguished panelists and two expert Interveners. Panelists included H.E. Ursula Owusu-Ekufu, Minister of Communications,

Ghana; Michel van Bellinghen, BEREC/GSR Regulatory Associations Meeting Chair; Flavien Bachabi, President of ARCEP-BENIN; Dr R. S. Sharma, Chairman, TRAI; Bocar Ba, Chairman, SAMENA Council, and Chair, CRO; Aarti Holla, Secretary General, ESOA; Joakim Reiter, Group External Affairs Director at the Vodafone Group; Makthar Diop, VP at the World Bank. Expert Interveners were Broadband Commissioners Mats Granryd, Director-General of the GSMA, and Lacina Koné, Director General of Smart Africa.

Ms Bogdan-Martin asked panelists to look at how regulators can address the gaps to strengthen the foundations for digital transformation and build back better, stronger, more robustly. She noted the success of BDT's 'REG for COVID' platform, launched rapidly after the outbreak of the pandemic, which allows ICT regulators and policymakers from all regions to share insights, best practices and lessons learned around boosting connectivity and network availability in unprecedented times. She informed the audience that 400 contributions have already been posted on the platform.

To frame the panel discussion, Ms Bogdan-Martin threw out a number of challenging questions:

- How can regulation foster innovation and adoption of emerging technologies?
- What strategic framework is needed for digital transformation in our new reality?
- How can we leverage experimentation for innovation and investment to address three gap areas: financing gaps, infrastructure and technology gaps, and policy and regulatory gaps?

Key points from the debate

The first speaker, **Her Excellency Ursula Owusu-Ekufu, Minister of Communications, Ghana**, noted that ICTs have provided solutions that have helped in the collection of actionable data and in building a unified information platform for the country. The Ghanaian government has experimented with a number of steps and worked with many stakeholders to build truly innovative solutions that have helped the country deal with the pandemic, she said, focusing on:

- breaking down siloes in order to build a robust, resilient digital infrastructure on which vital services and applications can be based, bringing together all fibre assets held by various government agencies under a single management
- working to build innovative public private partnership arrangements, leveraging global champions and attracting global companies as well, with a focus on strategic partners with extensive local capabilities in digital transformation and local capacity
- the setting up of an emergency communication system, leveraging the existing common platform for revenue assurance and traffic monitoring to build a platform to facilitate contact tracing and information exchange to Ghana's health centres
- mandating national roaming technology neutrality, UNT900 for data over 2G, spectrum reframing, infrastructure sharing, and green technology initiatives
- launching a zero-rated electronic payments platform for all government digital services, working directly with three private sector companies
- ensuring the zero-rating of all technology, health, educational sites.

Michel van Bellinghen, BEREC/GSR Regulatory Associations Meeting Chair, spoke of the many challenges for BEREC since the outbreak of the pandemic. The organization has worked to help provide additional spectrum to mitigate capacity issues, and stepped up coordinated monitoring of European networks, setting up a special reporting mechanism in order to be able to respond quickly to capacity

issues. BEREC worked to help implement the European Commission guidance on how network operators can cope with increased traffic, where application of exceptional traffic management measures to prevent network congestion were permitted under the condition of equivalent categories of traffic being treated equally to respect network neutrality regulation. Streaming platforms were advised to offer standard rather than high-definition video services. Thanks to these urgent measures, while overall traffic on fixed and mobile networks increased during the COVID-19 crisis, no major congestion issues have occurred.

He remarked that it is a priority for BEREC to promote both investment and competition in national markets, with the aim of creating a well-functioning EU single digital market that allows consumers to use services that assure the same high quality, wherever they are.

He lamented that there are still too many people across the EU who have no access to high-speed Internet, highlighting the importance of addressing the European digital divide, and also of promoting green, sustainable solutions. Post-crisis, the European Commission's priority will be to rebuild in a way that is more digital – and that will mean greater cooperation, greater collaboration.

Flavien Bachabi, President of ARCEP-Benin, observed that with social distancing and lockdown, connectivity is critical to help cope with the crisis and ensure that people can continue to pursue their usual activities and businesses. National telecommunication infrastructure has been put under enormous stress, testing Benin's new regulatory framework in areas like technology neutrality, flexibility to issue authorizations for temporary access, leveraging full access to submarine cable capacity and full access to scarce resources, frequency and numbering plans, and the obligation to deliver in terms of quality of service.

Mr Bachabi spoke of the difficulties for a developing country like Benin, with the cancellation of most international flights limiting the ability to import ICT equipment and greatly restricting access to international maintenance technicians contracted to local operators. The pandemic has shown that ICTs should not be just a priority in terms of need, but should also be factored into a country's socioeconomic development strategy. Benin is currently relying very heavily on mobile services, but also needs fixed services, needs to make use of all available transmission options including satellite, fibre, and more. He also cited the crucial need for greater collaboration between the ICT sector and other government sectors.

Other challenges for Benin in fully leveraging the power of ICTs to help weather the crisis have included illiteracy and lack of digital skills, the high bandwidth cost for data services, and the need for emergency funds to bolster and extend the provision of digital networks and services.

Introducing **Dr R. S. Sharma, Chairman, TRAI**, moderator Doreen Bogdan-Martin noted that TRAI has been a part of the GSR since the very first event 20 years ago. Asked about addressing gaps to build back better, Dr Sharma commented that ICTs are helping India cope with the pandemic in a way that would have once been unimaginable. Even just the ability for people to stay connected to their loved ones has been a huge help in getting people through the stress of the current situation, he said.

Dr Sharma noted that every crisis is also an opportunity, and that the pandemic has accelerated the digital transformation in every sphere. Like other countries, India has had to boost network capacity to cope with an estimated 20-25% increase in data traffic. Network traffic has shifted from commercial areas to residential areas, with many people now working from home, and providers have had to take measures to deal with all these changes.

Dr Sharma predicted that the post-pandemic era will see telecom networks and internet connectivity feature extensively in key economic activities such as government services, financial, retail, education, and health, with digital serving as a platform for almost all sectors of the economy.

One priority going forward will be providing more and more fixed line connectivity, with steps already being taken to reduce taxes and provide incentives for people to adopt fixed line services.

Dr Sharma said that in his view, the building of a digital society from the policy and regulatory point of view will need to focus on facilitating the rollout of infrastructure for high capacity community connectivity, the establishment of data centres, and measures to ensure network resiliency, security and data. He noted that financing is not a major problem, as the ICT sector is financially strong, more investment is coming, and structures are being put in place to facilitate that. The regulator is also promoting wi-fi hot-spot interoperable infrastructure to make connectivity more available to poorer people.

SAMENA Council Chairman, Bocar Ba, emphasized the important role GSR plays in providing a crucial platform that the industry relies on for addressing critical regulatory industry issues. He said that magnitude of the current crisis means that success over the next decade will be influenced by progress made now in meaningfully leveraging digital communication technologies, their application, and the advanced digital networks that they run and scale on.

Mr Ba pointed to two gaps: technology, and infrastructure availability. The first gap means no digital infrastructure at all, or no accessibility at all, resulting in no access to communications.

The second gap is where technology is available but limited in scale. There are only a few places in the world well-positioned to fully leverage technologies like 5G to help mitigate the effects of the pandemic, he said, with the majority of markets where connectivity could have helped to contain the pandemic simply not sufficiently connected. He cited Pakistan, many countries in Africa, in Latin America, and indeed most developing nations, as places still unable to harness the promise of 5G. These areas where people are using technology but limited by the scale of its deployment need to be a major focus of our efforts, he urged.

Aarti Holla, Secretary General, ESOA, noted that the digital divide is a reality that's been a problem for way too long on all continents. She said policymakers need to prioritize connectivity for all as an objective in itself: healthcare and primary education are already seen as fundamental needs of every citizen, yet for the moment ICT is only seen as an enabler, where, in fact, ICT is the fundamental platform which can provide all of these services.

Basic connectivity for all world communities needs to be addressed now as a standalone priority, she said, because it is essential for resiliency in a world that's facing increasing vulnerabilities, whether from climate change, political unrest, or from the uncertainty of pandemics. She added that broadband is essential not just to keep people connected, but to keep them informed and protected as well. In response to the question of whether connecting the world can be achieved, she noted that solutions like satellite exist today, and have undergone a huge wave of transformation to make them accessible, practical and affordable, even for the poorest of communities. She urged governments and regulators who are serious about bridging their divides to be bold and embrace other options.

“You know,” she said, “we see and we hear all the time about the race to be the first to implement 5G. Let's race to bridge the digital divide and make it a priority. If the approach taken so far has not

delivered change, then let's embrace a different approach. Satellite solutions are available today and they work.” She stressed that myths around satellite latency and cost are inaccurate, noting that during COVID studies have shown that the most popular application running over satellite globally was YouTube, accounting for almost 17% of the total traffic share, with streaming on Netflix not far behind. Any suggestion that satellite doesn't work for many of the important applications that we are all relying on is a myth, she said.

On the issue of the cost of satellite services, Ms Holla shared an example from Mexico of a community Internet programme which connects citizens in underserved areas at 50 US cents per hour. That means people are receiving a 4G experience in an area where even a 2G investment is considered unviable, she said. She argued for the removal of regulatory barriers to enable class licensing with reasonable fees for satellite providers, noting that a general authorization approach will enable a maximum number of installations and the maximum benefit for connectivity.

She concluded her remarks by advocating for more partnerships with satellite providers, ensuring that satellites can participate in projects and tenders by avoiding writing in artificial speed or latency requirements that exclude satellite, when in reality satellite services may be the key to ensuring connectivity in those areas.

Joakim Reiter, Group External Affairs Director at the Vodafone Group, agreed that the COVID crisis has shown us that connectivity is a lifeline. He said that COVID has thrown a spotlight on the fact that digital is not universal, it is becoming a new dividing line in our society; those that have connectivity versus those that do not, or those that have really good connectivity versus those that have poor connectivity. He observed that this current state of affairs is very serious problem if the world is determined to meet the SDGs in the next ten years. He emphasized the “criticality of partnership”, adding that people on the industry and government side have changed roles in this crisis, and advocated for the need to forge a new social contract between governments, regulators, industry and citizens as we move forward.

Looking to a post-COVID future, he said we need to be looking to build societal resilience with digital at its heart. That will require a focus on the changes required in government, the changes required in business, and then the changes to address those citizens who are most vulnerable, all of which must underpinned by future-proof networks. He said Vodafone is advising governments going forward to prioritize digitalization in national reconstruction programming. He highlighted two important actions:

- reform of the investment environment where regulation plays a key role
 - the need to be much more proactive in stimulating demand for digital services.
- Vodafone advocates that governments do not give subsidies to contractors, but rather to those who are struggling to survive because of the lack of digital maturity – for example vulnerable groups or women who are not connected and who are thus falling further behind in terms of development.

He said the international community needs to come together on a much clearer roadmap or the digital society; the UN Secretary-General's roadmap is a good start, and the EU recovery fund is another one, he said, but advocated for more targeted efforts to reach the most vulnerable. He added that much more focus is needed on the perpetual investment gap: in the EU alone, he said, this gap is estimated at EUR42 billion annually. In Africa, to get universal coverage, Vodafone estimates EUR109 billion until 2030.

He said that governments need to be honest about things that don't work from a policy and regulatory perspective. He encouraged outcome-focused policies, the relinquishing of past practices of micromanagement of the sector, reform of the way spectrum or allocations and spectrum auctions are handled, and fundamental reform the cost of rollout, which is currently more expensive and slower because of regulatory procedures.

He concluded by arguing for a much more optimized capital allocation system, models for co-investment, better leveraging of public private partnerships, co-investment between operators that are competing, and the leveraging of satellite versus the terrestrial network. “There are significant changes we need to do, and we have to face up to the reality that we're all in this together,” he said.

Makthar Diop, VP at the World Bank was the final speaker on the panel. He stressed that his core message to the meeting is the power of advanced collaboration. He praised the role of GSR in forging a tight community of regulators and pushing forward best practice, adding that over the past 20 years the world has made big steps forward. He cited the example of Somalia, which in 2018 created a national communication authority. This has allowed the country to move forward and issue licences to six operators. He added that Ethiopia, which is one of Africa’s largest markets, has been working with the World Bank since 2019 on establishing a communication authority and multisectoral regulatory agency. These developments highlight the vital and essential role of the regulator. “When you think about regulation,” he concluded, “there are certain issues from [the year] 2000 that we're still dealing with – regulatory independence, allocation of spectrum, promotion of universal services – but on top of that, we have new issues which are coming up. We're talking about control of the spread of fake news, how to regulate digital companies.” He said the ability to cooperate to deal with these types of question is extremely important.

The panel session concluded with the screening of a video prepared by WEF on the Action Plan jointly developed by ITU, the World Bank, the World Economic Forum, and the GSMA.

- MP4 file: <https://weforum.box.com/s/lb9ztvqer28gezv413mgbk5ki0v09w5h>
- YouTube version: <https://youtu.be/PKg7GHEpqKM>

4. EXPERT INTERVENTIONS

Following the panel and screening of the video, moderator Doreen Bogdan-Martin called on two interventions from the floor.

The first intervenor was **Mats Granryd, Director-General of the GSMA**. He noted that economic recovery, employment, social welfare will dominate the agenda for most governments in the wake of the pandemic, and that the solutions to these challenges will look different in different countries and in different regions. “What we know is that robust, resilient mobile infrastructure can help to address the systematic problems while fuelling growth and technology progress. Governments and regulatory authorities have many levers to accelerate or delay the infrastructure,” he noted. Looking ahead, burning issues for governments and regulators include access to sufficient harmonized spectrum, reduced sector-specific taxation, and streamlining of deployment approvals. He added that governments have many ways to create favorable conditions for investment.

He advocated for pro-investment policies and regulatory restraint. In the wake of COVID-19 emergency, governments are under enormous financial strain and will need to prioritize funding in many areas. Rather than looking for ways to extract revenues from the mobile sector for taxation,

which would not be conducive to investment and which would delay the economic boost that advances in connectivity deliver, the way forward is to track investment that builds national economic competitiveness in digital skills and digital adoption across industry and society,” he said.

He went on to summarize four lessons learned from the crisis:

- digital infrastructure must be resilient
- mobile network investment must continue to be a priority
- digital inclusion matters; everyone should have digital skills and access to Internet, to leave no one behind
- the digital environment must embody the principles of trust, privacy, safety, security.

Creating a positive environment for recovery requires shared intent and coordinated effort from governments, regulators, industry, international organizations, civil society, he concluded.

The final intervention came from **Lacina Koné, Director General of Smart Africa**. He said the onset of the COVID-19 crisis presented a unique, opportune time to “reshuffle the cards”, and to accelerate the digital transformation of Africa. On the 25th of March, the Smart Africa Secretariat released a call for project to develop a common platform that could support Member States to mitigate the global impact of COVID using widely available and familiar channels such as USSD, which is very particular to Africa, as well as SMS, interactive voice, WhatsApp, and the web.

One of the steps recommended to government and regulators was to declare telecoms services as essential services. Ensuring data privacy and protection of citizens’ data was also a priority. Medium-term strategies include investing a portion of the Universal Access Fund to promote digital skills literacy and extend connectivity to the unconnected, spectrum reframing for quick deployment of services, and the development of e-government and e-service solutions for the government. Smart Africa also created a Council of African regulators as an agent of implementation for cross-border connectivity project such as the One Africa network. Regulatory harmonization is another priority, and Mr Koné said he is pleased to be working together with the African Union Commission and ITU as well as the African Telecommunication Union in assuring that key policies concerning privacy, security, connectivity, and more, are harmonized.

5. OPEN PANEL DISCUSSION

Following the interventions from the floor, Ms Bogdan-Martin turned back to the panelists to comment on previously raised issues and questions raised by the audience.

Her Excellency Ursula Owusu-Ekufu, Minister of Communications, Ghana stressed that the important role of connectivity has become more visible during the crisis, noting that today, ICTs are seen to be as essential as water and electricity. It is incumbent upon government to provide an enabling environment to foster connectivity, she said. More collaboration, especially between government and the private sector is needed in order to find innovative ways of financing and to select the best technologies at the most affordable cost to reach the largest number of people in the shortest possible time. During the digitization process, she noted, we need to be mindful of the following:

- the digital divide has to be narrowed, and it cannot be left solely to the private sector and Universal Service Funds alone

- Data management, privacy issues, cybersecurity concerns and child online protection issues have to be addressed. The latter not only requires guidelines but also implementation policies
- Regulatory overlaps need to be addressed, and the role and mandates of regulators in the different sectors need to be clear.

Michel van Bellinghen, BEREC/GSR Regulatory Associations Meeting Chair, stressed that while most of Europe did not experience major breakdowns in terms of network resilience and availability, 15% of citizens still do not have access to broadband connectivity at home. Effective regulatory interventions and broadband policies rely on detailed information on networks. To promote connectivity, it is essential to collect and publish accurate information on existing and planned networks. Recently published guidelines on geographical surveys for network deployments can help generate accurate information on broadband performance. The main challenge for the coming years, he said, will be to promote investment in fast networks and to close the digital divide. Both will require commitment and sustainable resources.

With new technologies such as 5G and new digital platforms, the core business of regulators will evolve, and they will have to go beyond traditional borders. Cooperation will be key in resolving these future challenges as they involve regulators and actors from different industries.

Flavien Bachabi, President of ARCEP-Benin said that to assist vulnerable countries, an enabling regulatory environment needs to be in place. Even though in Africa regulatory frameworks have been harmonized, more could still be done. Operators cannot be forced to invest, but if business-conducive regulation is in place, it can help enable the operators with financing.

Technologies already exist to boost connectivity, he said, and this too is the case for developing countries. They may need to be adapted, but the emphasis needs to be on the services that technology can provide. This is what citizens are interested in and where the focus should be.

He also mentioned that countries facing a humanitarian crisis need help with mobilizing funding (cash or in-kind) both from the public and private sector. Platforms could be created with different countries and funds, and technical skills could be cultivated that can support in a crisis. Different examples of platforms already exist, he noted, referring to examples such as the Caribbean Catastrophe Risk Insurance Facility or the mobile satellite communications platform www.emergency.lu. Such structures, he noted, could allow African countries to rely on each other in crisis situations.

Dr R. S. Sharma, Chairman, TRAI, referred to broadcasting and how important this became during the lockdown. Focus on this meant that disruption to services was avoided; TRAI supported the necessary infrastructure so that citizens could continue to benefit from broadcasting and television services.

Connectivity that is affordable and serves people's needs remains essential, he said, and the pandemic has illustrated the importance of reliable connectivity. Governments and regulators, he noted, need to ensure that an enabling environment is in place allowing continued investments. One way to boost investment in the sector and attract more players is to promote policies that actually facilitate infrastructure sharing on the back end, that promote spectrum sharing, and allow players to unbundle their services and networks.

Makthar Diop, VP at the World Bank shared his perspective on the issue of the financing gap and the role of the World Bank, arguing that when pursuing digital innovation, the guiding principle should be for the private sector to take the lead in financing and operating.

“We don’t have a lot of public resources”, he stated, “we are in a situation where recession is being seen. There will be competing demands for public resources needed to finance other sectors, so there is a call for the private sector to continue investing and also for reducing the risk and uncertainties related to investment.”

The role of the World Bank is to help countries in putting in place appropriate policies and regulation to leverage and de-risk investment, he said. The World Bank has estimated that to close the digital divide, roughly 112 billion dollars will be needed; that is close to 9 billion dollars a year, and roughly 75% will be coming from the private sector. So it is very important, he said, that we help in creating the right conditions for the private sector. In addition, he said more focus is needed on analysis of on what type of technology can be used to bring digital access in different regions. He noted that different technologies are suitable for different contexts, and that today there are a large number of technologies available, referring to examples from Mexico, which implemented a local wireless network system, versus a national fibre optic network implemented in part of Africa.

Another way to boost the support for universal access, he noted, is to more effectively use the wealth of assets owned by governments.

Lastly, he said, taxation is the most difficult question that we have to face in the short run, and we need to have a conversation around that. Governments do need resources to face and finance basic needs. The World Bank with other actors can bring budget support to compensate for the loss of revenues that governments face, so that an increase in taxation on the industry is not required.

Joakim Reiter, Group External Affairs Director, Vodafone Group, noted that the current model defining the relationship between governments and industry does not work, and “we need to find a path forward”. Industry, he said, will invest in what governments consider more crucial, like vulnerable customers, connectivity, supporting e-government, critical national services, and the like, but in return governments should understand that “a tax on connectivity is a de facto tax on everyone”. To take away from rollout is to take away from inclusion. Similarly, he continued, “there needs to be a shift from an ‘innovation by permission’ approach to an ‘innovation first’ approach”. Governments should partner with industry to find new ideas that can change the cost structure to reach the unconnected.

Mr Reiter also stressed on the importance of collaboration. The digital revolution, he said, is about the “collapse of sectors”, the “overlay of ICT onto the real economy”. The risk implied in this is regulatory arbitrage, because when regulation is too sectorial, then you get regulatory arbitrage by crossing a sector’s boundary. This is a problem we need to address, he said, referring to the example of e-payments, where he suggested “we have to have more horizontal regulation”, and “work in partnership with the industry as a whole”. By working more collaboratively, he noted, we can avoid fragmentation in the sectors, but also between countries.

Looking at the post-COVID period, Mr Reiter reflected that there could be more focus on broad-based adoption of ICTs, and how we drive empowerment in our society. The COVID pandemic, he said, showed us the importance of the ‘nuts and bolts’ of the ICT sector and hence the need to address some fundamental trade-offs that have been left unsolved for a long time. 5G, he continued,

will allow much more traffic to be carried across the networks, with people-to-people communication and the data driven by that. 5G deployment, he said, needs to accelerate.

Lastly, Mr Reiter called upon the industry and governments to work together on data sharing, noting that this is currently a big issue. Ways need to be found to share data in a secure manner that protects people's privacy while giving all actors the possibility to leverage the power of data for better decision making and better services.

Collaboration, noted **Bocar Ba, Chairman, SAMENA Council**, clearly emerges as a core priority. This term, he continued, has been in use for several years now, it has almost become a jargon, to the point that "it is so overused, it loses its substance". Every single stakeholder in the industry, whether from the public sector or private sector, he said, has their respective set of responsibilities that they need to fulfill. Today's priorities, he noted, are similar to what existed before the pandemic, but initiatives such as the Agenda for Action created by the ITU with the World Bank, the World Economic Forum, and GSMA, have clearly set out priorities and underlined the need to accelerate their implementation.

Making reference to the socioeconomic reboot that Smart Africa addressed during Mr Koné's first intervention, Mr Ba noted that this illustrates the need to align investment, policy, regulation, technology, employment, and business sustainability with the SDGs. For this to happen, he said, we also need to align collaboration across stakeholders.

Mr Ba continued by suggesting that solutions raised by participants in the session can be framed within five sets of priorities:

- promote ICT infrastructure as fundamental to the survivability of nations. Policies must be framed as soon as possible to incubate innovation, to accelerate digital infrastructure investment, development, and transformation
- define clear digital blueprints to achieve a common consensus among policymakers
- align the industry plans with government plans
- encourage 5G adoption
- identify and foster ICT talent.

COVID-19, he said, separated the whole planet, and technology has brought us back together. 5G, he stressed, is something much bigger than a technology, it is an ecosystem connecting everyone, everything, everywhere. Collaboration is needed, but "we have to go deeper into what we call collaboration among stakeholders," he concluded.

Finally, **Aarti Holla, Secretary General, ESOA**, stressed how the satellite sector is fully engaged with multiple projects, validating satellite technology for 5G use cases. "We have to be realistic", she said, and not believe that just because 5G is the latest new technology it holds the answer to all our problems. 2G, 3G, 4G could not provide universal coverage, "so what makes us think that 5G is different?". In fact, she argued, 5G is not a "miracle solution" that is going to solve all the problems of the past.

The first problem is cost, she said. In some areas, the required infrastructure investment is so high that there is no business case to support it. In the post-pandemic economy this is going to be even more true, since 5G is set to cost 10 times more than 4G, she observed. From this perspective, she

said, 5G not only will not bridge the digital divide, but it will make it worse, because it requires working on a backbone that should already be in place.

While it is not wrong to work on deploying 5G, it is wrong to assume it will help connect the remaining 49% of the population. It is not going to be the solution for everyone, and it will not help close the digital divide, she argued. She said that we need to deploy 5G, but at the same time we also need to deploy those solutions that can get there where other technologies cannot. She reminded the audience that satellite technology has this capability. Additionally, she said, it provides a robust, resilient solution in case of disasters and emergencies: two elements that make satellite a key technology.

Right now, Ms Holla pointed out, satellite technology can connect users directly to broadband and enable community wi-fi in a matter of days. “Let me say that again!” she continued emphatically, “it can connect people or enable community wi-fi in a matter of days!”. With satellites, communities in greenfield locations can leapfrog from absolutely no connectivity to 4G connectivity overnight, she said.

Until 5G becomes a cost effective and viable solution everywhere, governments should look at the capabilities of satellite technology, Ms Holla reiterated. New business models characterized by the integration of different technology and driven by cross-sectoral collaboration will ultimately bring the benefits of 5G, and the 5G revolution, to citizens everywhere.

To those concerned that satellite might compete with other technologies, Ms Holla answered that when you have a big challenge like the digital divide, you need to apply multiple solutions. “Policymakers and governments do not need to pick winners among technologies”, but rather make room for all the technologies to work together, she concluded.

6. CONCLUSION AND WAY FORWARD

Doreen Bogdan-Martin, BDT Director, thanked all participants and speakers for participating in this first virtual GSR-20 Leadership Debate. Calling upon Ms Sofie Maddens to briefly present the GSR-20 Best Practice Guidelines consultation, Ms Bogdan-Martin reminded participants to provide their input to the 2020 GSR Best Practice Guidelines consultation, noting that the deadline has been extended to 31 July to provide more stakeholders with the opportunity to contribute (See [BDT/DKH/RME/DM/150](#)).

She also reminded participants of upcoming GSR-20 events and meetings, including:

- On 30 July: GSR-20 Regulatory Roundtable Discussion: Digital Transformation for Digital Economies @COVID-19 South-Asia.
- On 20 August: GSR-20 Regulatory Roundtable Discussion: Competition Policy and Analysis in a Digital Apps Environment for the Arab and Africa Regions.
- On 31 August: The Regional Regulatory Associations meeting and Industry Advisory Group for Development Issues & Private Sector Chief Regulatory Officer's meeting (IAGDI-CRO).
- On 1 September: The Heads of Regulators Executive Roundtable (invitation only), just before the main sessions of GSR.
- The core sessions of GSR will be held from 1 to 3 September in short sessions spanning 3 hours each day.