Creating Sustainable Finance & Investment Models for Global Roll-out of Broadband Networks

Special Session of the UN Broadband Commission for Digital Development
co-organized with the Ministry of Communications and
High Technologies of the Republic of Azerbaijan, World Economic Forum
and International Telecommunication Union at Davos,
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Introduction

Designing the finance and investment model for the future roll-out of broadband is critical, if we are to unleash the power of broadband to deliver transformative solutions to the development goals of our day, through its potential to bring about change in the nature of almost every act of production and consumption, whether public or private, including the delivery of vital public services such as education, health and culture. It is essential that appropriate steps are taken to encourage investment in broadband networks, as well as specific interventions with a positive impact in broadband investment.

This Special Session addressed the following questions:

1. Is the current public-private investment model sufficient and/or sustainable?

2. How can finance and investment models evolve to meet the exponential growth in data and to meet the development imperative for full digital inclusion?

3. Can regulation keep pace with fast-moving technological change?

4. Should Over-the-top players (OTTs) contribute through revenue share to the cost of building Broadband network to rural and remote areas of the developing world?

5. Would a level regulatory playing-field help encourage investment in broadband networks?

Participants acknowledged that the effective use of broadband networks, services and applications can deliver transformative solutions to address the key challenges of our times, including reducing poverty and malnutrition, improving healthcare or decoupling economic growth from the use and depletion of natural resources. To further contribute to these ambitious goals, broadband and information and communication technologies (ICT) must reach all people, in particular those facing social exclusion, living in remote locations or facing the greatest exposure to environmental hazards and economic deprivation.

However, financing and deploying broadband to reach low-income communities or people in remote areas is challenging, due to a combination of factors that make these markets less attractive for private investors. This means that governments often have to provide the sole source of funding, or take steps to attract investment or co-investment, so as to expand access to broadband to the least advantaged groups. For these purposes, the co-operation and buy-in of a range of agents in the ICT ecosystem is imperative.

According to the International Telecommunication Union's and the ITU/UNESCO Broadband Commission for Digital Development's latest research, regulation of broadband networks and content is highly asymmetric between different types of players. Technological convergence is blurring the boundaries between services and industries. Regulators and policy-makers are seeking to adapt and update regulatory requirements, with the introduction of "fourth-generation" regulation to establish an enabling environment to encourage sustainable investment.

Through the Special Session of the Broadband Commission in Davos, actions and policies were identified that can encourage that cooperation and attract finance and investment in broadband. In particular, stakeholders from industry, government and financial institutions were engaged to discuss the following action areas:

1. Gaining access to low-cost private sector finance;

2. Introducing effective policy and regulation for the ICT sector;

3. Devising appropriate tax policies for the sector;

4. Selecting and implementing other interventions to underpin the necessary investment.

Opening

The Special Session of the Broadband Commission in Davos was formally opened by its Co-Chair, H.E. President Kagame of the Republic of Rwanda, who noted that the challenge boiled down to defining solutions that can enable investment to increase access to broadband networks for the rest of the world. As it has been seen in the past, it is possible to see how these broadband technologies have changed lives and continue to do so.

Do not underestimate the power of a single voice that is globally connected opened Mr. Houlin Zhao, Secretary General of the International Telecommunication Union (ITU) and Co- Vice Chair of the Commission. He highlighted that broadband is an enabler of each of the three pillars of sustainable development – social, economic and environmental. Evidence shows that each 10% increase in broadband penetration, increases between 1.5 - 4% additional percentage points to a countries GDP.

Panel Discussion moderated by Alan Murray, Editor-in-Chief, Fortune

This section describes the main findings and key points discussed during the session.

Development in broadband brings new opportunities

85% of the world's population is within mobile coverage. Everyone agreed that some work has to be done to get more remote areas into the coverage areas, onto networks and upgrade 2G to 3G. Why are people in mobile coverage areas not using the network? It may be the cost in handheld devices, which is one barrier. There is a lot to be done in terms of digital infrastructure.

It is necessary to work with governments so that the regulatory environment incentivizes development

There is a need for specific regulatory policies such as lowering taxes to incentivize private sector investment. The Commission must continue to champion this, as the private sector cannot do this without them. In order to invest in infrastructure, a certain amount of ROI is needed. Today, some ROI is under threat from applications such as Whatsapp, Viber, and other over-the-top (OTT) services, which are provided for free and have different revenue models. The revenue for these is generated by advertisement. These players are new and not subject to the same regulatory policies as operators. There should be equal treatment of providers.

There are more challenges than ever

The world is not without challenges. One concerns is that, of that of the 17 SDGs (sustainable development goals) only 4 cite ICTs. This year the Commission has to be very clear on what we bring from the Broadband Commission. It is necessary to work very hard after September, otherwise there is a risk of going another 15 years without SDGs with ICT in them. Not everybody sees broadband as a good to advance the greater good. This is a huge responsibility and that is why the Broadband Commission was created. It is so important to understand the broadband phenomenon, the role of the private sector and how much investment has been made and how much will be required. 4 billion people don't have Internet connection. How do we encourage that 4 billion to get access? It is not going to happen; and the potential opportunities and benefits of connectivity are not going to be realized, unless we act now and agree on new and innovative finance and business models.

Investment in Broadband rollout to markets that are not online is the biggest challenge

If one looks at the telecom industry, it is in developing markets for the most part. There is a need to increase the drive to LTE and 3G. Everyone agreed to focus on defining the solutions. The overall goal is to bring broadband to the masses. There needs to be a new business model created based on a toll road. People access user networks to communicate with customers and need to pay for bits and bytes.

The CEOs of telecom companies now have big demands on Capex and if we want to increase from 3 to 7 billion people using broadband, the model of charging needs to be in there. One answer is public-private partnerships, and everybody needs to pay to get access to the customer. Currently, there is no regulation that applies to OTTs. If one is going to use everybody else's infrastructure and not pay for it, that is unsustainable. President Obama's views on Net Neutrality may work for the US, but it is not a model for the rest of the world. It would be a disaster because there will be no remuneration for the Capex. This is the biggest issue – how do we get investment to bring broadband to the rest of the world?

The Consumer Pays in the End

Traffic is paid for by the consumer, and we will all be paid by the consumer in the end. From an OTT perspective the level playing field regulation of today may be an outdated model, and need to be renewed. Participants agreed to be honest and stop

saying that OTT's don't spend. The talk focused on the reality and need to go into details. One thing is regulation and over-regulation, and another is the adoption of old regulation that blocks innovation. The regulations should be reviewed to make them more coherent to the adoption of innovation.

A balance must be struck between the different regulations in the different sectors to continue innovation. It's not easy. It is necessary to attack the difficult problems as well.

So, how do we deal with the conflict between what's happening with the software Internet companies and the need of investment from the telecommunication companies?

The Internet is an incredibly efficient way to do things. Infrastructure pays off in so many ways. The Internet is a horizontal layer and the transmission of bits is a separate business from what happens on top of it. This is why we have so much innovation that happens on top of it. That's why so many things can be done for free, since it is such an efficient system. ISP interconnections and economic connections are issues between companies that pass bits to each other. Clearly, these peering and interconnection agreements need to be made solid and clearer, so that investors get the return on it. However, to suggest net neutrality is against that is clouding the waters. It's a fact that the Internet is a separate thing. Net neutrality is

about the fact that if you're in the middle of the Internet, then you pay for the Internet. It's about being fair. Money for this is being received, but more is necessary. Technology exists which specifically blocks people. Being a highway monitor is evil.

Where is the money coming from to reach the 4 billion people who are not connected?

Many participants said that to stop saying that Internet is for free. If it is free for customers, but there is always cost and someone pays for it. Carriages on the rails are used to running those carriage empty, back and forth. One of the ways is optimizing traffic and keeping local traffic really local by investing in local Internet infrastructure and keeping traffic within a country. It is cheaper to store in the cloud than locally, but what was discovered in a

recent study was that to run over the cloud, the cost can be 100 times more expensive.

Local content should be kept where it is consumed. By doing this, we are also developing local knowledge which is needed to bring the next billion online. This is the way forward.

In Africa, there is no money to set up the infrastructure. Companies are working with the government and investment banks. They set up the networks and pay back to the banks. This is the way to the solution. Government needs to pay more attention to national broadband infrastructure.

From China to Canada - Quality of life, education, healthcare are all built on broadband development

In China the government asked carriers to set up digital information centers in

different villages and directly contributed to getting 12 million jobs. Singapore also pays attention and talks about being a 'smart nation'. For the next 5 years in China, the government has a major project to invest and will also seek to get investment through public-private partnerships.

This discussion should be extended to include consumers and new services. The key is to find a way is to encourage business model innovation, and government and regulators can play a significant role in this process. When talking about the ongoing high-definition of service of the Internet, the media sectors really want strong infrastructure to support their services and they want to provide a way to share end-to-end perspective. The question for the regulators is how to encourage innovation. In China, there is a video service provider, the consumers are also happy to have

higher speeds of download and high-def video. The video service provider will share revenues with China Mobile. How will regulators encourage this type of innovative model globally? We need to stress the importance of encouraging regulatory authorities to encourage innovation.

Looking at the case of Canada, the 2nd largest country and 37th largest population. The challenge connecting Canadians is that people are looking for a single solution when we face different types of challenges. It cannot be owned and driven by government, but rather by the private sector. There has to be guarantees for companies over time, and not monopoly service providers. We have reformed the way governments deal with infrastructure and to open it up to the three Ps (public-private partnership) as well.

The key driver has to be that governments are open and honest. Governments are the levers. There is a massive gap in rural areas in Canada and we are reaching out to these. Wi-Fi hotspots are open, but it is essential that government be open to these types of investments. Quality of life, education, healthcare are all built on this development. 94% of Canadians have broadband, but the aim is to close the gap on the remaining 6%.

Digital Divide leads to greater inequality and we must urgently address this

Many areas of the world have less than 5% of connectivity. Fundamentally new models are needed to address these issues, otherwise inequality will continue to increase. Panelists supported the views that it should be a relationship between the private and public sectors. Governments are the only bodies in the world that have responsibility for all of their people. We need to get real in these open conversations. Most government regulators know their responsibilities, but don't have the resources to deliver. We have to do this together. Small countries have specific challenges. There is 1.7% Internet penetration in Sierra Leone, but with broadband access, the Ebola crisis could have been changed. People don't want to invest because the country is so small.

Standardization Broadband Technologies and the Cost of Connecting the Unconnected

What is the size of investment needed? For the full industry, it is USD 4 trillion in investment. Standardized technology can reach everyone in the world and it is extremely important to have agreed international standards because standardized technologies for broadband will help bring down the investment.

The social benefits of broadband - overtaxed broadband services harm development

5G is the future and we have to be planning for that. Public and private organizations need to pay attention and work together to resolve connectivity and digital inclusion issues. Innovation is needed and governments' attention needs to be improved. There is this impression that government is not doing anything, and this is a misperception. Government has put money in to set up infrastructure in areas where operators don't wish to develop since there isn't a return on investment. One participant mentioned the following predicament after discussing with Orange: the government can set up towers, but then Orange will need to run and maintain the towers. Maintaining a good relationship between business and government is a key challenge.

It's important not to over tax broadband services – the governments have to realize the social benefits of broadband, and that if you tax broadband services, you may actually be harming development.

In those countries where they have tried to reduce the price of access to rural areas, it has been successful and operators would want to be a part of this, as they also want to be good corporate citizens.

But practically speaking, how to move from 20% to 90% for broadband coverage? In the case of one African country they found that PPP cooperation was most important. It's hard to find a business case for every investment but it is necessary to open the possibility for all the players in the market to contribute to a 3P model. One successful model for example built two layers – one wholesale and a single contribution layer. They invited everyone to cooperate to build the infrastructure, and then competition took place at the retail level.

Common Themes: Connectivity gaps can narrow through partnerships; broadband catalyzes development and needs innovative PPP investment to realize this potential.

H.E. Toomas Hendrik Ilves, President of Estonia participated to the Special Session and reported that when Estonia became independent in 1991, it had the same GDP as Finland in 1939 - Finland was 13 times richer than Estonia which was still using the rotary dial system. Estonia's answer was to prioritize building a broadband system. Broadband has now helped Estonia propel itself into the modern-day digital economy and the solutions came from public and private working together. There is a will to solve the problem of unconnected people that we are talking about in the billions. How to come together and resolve these issues? We need to narrow the gaps through partnerships.

In Davos there was a myriad of discussions across sectors, but there was one particular theme which had more organized sessions than others – and that was development. The post-2015 development agenda was regularly referenced and the focus of the Special Session of the Broadband Commission on investment in the global broadband network is an integral component that can contribute to the success of the SDGs.

The Broadband Commission for Digital Development was launched by the International Telecommunication Union (ITU) and the United Nations Education, Science and Cultural Organization (UNESCO) in response to UN Secretary-General Ban Ki-Moon's call to step up UN efforts to meet the Millennium Development Goals (MDGs). Established in May 2010, the Commission unites top industry executives with government leaders, thought leaders, policy pioneers, international agencies and organizations concerned with development.

The Broadband Commission embraces a range of different perspectives in a multi-stakeholder approach to promoting the global roll-out of broadband, as well as providing a fresh approach to UN and business engagement.

To date, the Commission has published a number of high-level policy reports, best practices and case studies.

More information about the Commission is available at

www.broadbandcommission.org

This report aims to serve as a record for the special session of the Broadband Commission at the World Economic Forum, January 2015.

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