

Recommendations for Boosting Broadband



Every year, the Commission makes a number of policy recommendations aimed at improving broadband networks and services. This year, based on the analysis in this report, the Commission presents eight recommendations:

5.1 Build National Leadership for Broadband

A strong commitment to broadband as a cross-cutting technology that can trigger development transformation is needed at the highest level. A high-level champion in the government can help ensure that broadband can receive the necessary political support and resources. It is essential to find the right combination of complementary technologies to bridge the digital divide. This implies technology-neutral digital strategies and national broadband plans covering the mix of technologies that can be used to bridge the digital divide.

5.2 Promote Training and Measures to Stimulate Demand

Broadband connectivity alone — without sufficient consumer and business demand — is not sufficient, and programmes and

measures are needed to address the demand. Successful broadband and ICT plans must include a variety of demand-side programmes, especially in the initial stages of deployment, to generate public interest and boost investment. Viewpoint 28 explores a range of demand programmes for improving broadband adoption.

Viewpoint 28: Demand Programmes for Broadband Adoption

An array of demand-side programs can be considered for inclusion in national plans, with the final choices dependent on local and regional needs, including demand side programs that facilitate:

- **Low-interest financing and/or subsidies to support ICT and broadband purchases;**
- **Affordable computer and broadband programs for low income families, students etc.**
- **Tax reductions on ICT devices and broadband;**
- **Effective usage of Universal Service Funds (USFs) for broadband demand programs;**
- **Loans to build broadband networks in rural and remote areas;**



- **ICT skill development and digital literacy programs;**
- **E-commerce to increase broadband adoption by businesses;**
- **E-learning programs targeting underserved groups (elderly, disabled, etc.); and**
- **ICT infrastructure and broadband access in all schools.**

A combination of these and other demand-side programmes can be used to raise awareness of broadband, make broadband services more affordable, and expand networks and services to the widest population as quickly as possible. The Commission’s Working Group on Demand developed the report “Enabling the Use of ICTs and Broadband: Understanding What Works to Stimulate ICT Adoption”, describing successful demand creation programmes.

Source: Intel.

5.3 Benchmark and Monitor ICT Developments

Limited data on the ICT sector can restrict the scope for evidence-based policy-making. National accounts data on the ICT sector may

be published at an aggregate level, making it difficult to meaningfully gauge development of the broadband sector and identify weaknesses. National statistics systems, benchmarking and analysis generally need to be improved to understand and interpret the dynamics of broadband diffusion across the economy. Better understanding of network deployment and use can help inform policy and advance progress towards universal service.

5.4 Review Universal Service Measures, including RoW regulations

Benchmarking exercises of universal service measures can help define and identify rural, remote, and low-population density communities that need broadband coverage and that cannot be served by terrestrial media, in the national context. This urgent need to serve rural populations should be reflected in government policies and regulations. This can include reforms to Rights of Way (RoW) regulations. Viewpoint 29 considers some reforms to further improve connectivity in connected areas.

Viewpoint 29: Addressing the Digital Divide in Already Connected Areas

Eliminating the digital divide in developing and less developing

countries, landlocked nations, island nations, and for people in remote and rural areas attracts major attention and billions of dollars in public funding. However, the digital divide, including the gap of bandwidth demand and supply in connected areas, is more serious than expected, partly due to less competition in broadband services, high construction cost led by insufficient public infrastructure-sharing and 'last-mile' monopolization by the incumbent or property management agencies.

In some developing countries, public and private Rights of Way (ROW) acquisition is a key issue and major cost for operators which want to deploy or upgrade their broadband infrastructure, as it involves multiple authorities, complicated procedures and diverse fees (e.g. administration fees, usage fees, environmental restoration fees). Further, some provincial and/or municipal governments regard ROW acquisition expenditure as an important source of income, which can make ROW charge less transparent and inconsistent within a country.

Construction cost is another issue that makes infrastructure investment less attractive to telcos. It is estimated that up to 70% of broadband investment will be spent on RoW expenditure, site acquisition and civil engineering. Infrastructure-sharing of municipal underground ducts or electricity poles can enable telcos to accelerate broadband deployments. For example, in Thailand, aerial fibre deployed on the electricity poles has saved 80% of construction costs and 40% of deployment time over recent years. Regulatory policies to move transmission lines from electricity poles to underground ducts can slow down infrastructure deployments and increase deployment costs.

Further, some property management agencies either play as network retailers, subscribing lease lines from telcos and reselling them to residents,

or signing exclusive service contracts with telcos. Such behaviors may prevent residents from receiving better quality of broadband services or choosing among service providers. Government policies and regulatory measures are needed to remove last-mile monopolization, so operators can fairly and easily access or deploy fibre to each apartment.

Regulators have obligations to remove the obstacles to broadband development to ensure available, affordable and superior broadband services in served or unserved areas. Governments should aim to provide adequate regulatory policies to attract private sector investment in broadband infrastructure. Governments at all levels could simplify ROW application and streamline approval procedure to accelerate the delivery of broadband services, and coordinate with investors on property acquisition, ground clearance and compensation to facilitate the construction of broadband infrastructure. As a result, operators could be entitled to access public ROW at low or no cost.

Secondly, countries can consider infrastructure-sharing and joint construction policies. Cross-ministerial collaboration to specify the common use of public infrastructure should promote the sharing of existing poles and ducts. Existing public traffic facilities, electricity ducts, poles, water supply and drainage pipelines should have obligations to open up to all operators for fibre deployments. A visible infrastructure database should be set up, including timely updates on transportation, electricity and water pipeline position, capacity and occupation. The lease price of municipal and utility infrastructure can also be regulated with a view to minimizing broadband service delivery costs.

Finally, regulations on in-building infrastructure sharing and fibre pre-deployments from home can be enforced. New constructed and refurbished buildings can be laid

with optical cables and open to all operators. Construction codes and technical standards and specifications for the design and deployment of in-building optical cables could be put in place. The exclusive access agreement between property management agencies and service providers should be prohibited to avoid the monopolization of in-building facilities.

It is widely said that broadband infrastructure is as critical to socio-economic prosperity as transport, water and power. If broadband networks really are a strategic infrastructure to promote the digital economy, government should provide an enabling regulatory environment to foster the development of broadband infrastructure, rather than regard network providers as cash-cows and seek to impose charges. We need to reexamine the issue of the digital divide, not only in terms of digital equality, but also by addressing gaps in bandwidth demand and supply in areas already served by Internet. An enabling regulatory environment is the most important measure to foster the development of broadband infrastructure, so smart cities can function well and the digital economy can accelerate.

Source: Huawei.

5.5 Strengthen Digital Skills & Literacy

Digital skills and digital literacy need to be strengthened to enhance beneficial and productive uses of broadband and broadband take-up. Learning opportunities need to be improved and reinforced to recognize learning achievements in different contexts. Teachers need to be empowered, rather than disenfranchised, through integrated cross-government approaches involving all relevant Ministries. Such initiatives should be designed to be inclusive, so marginalized groups and communities are able to access appropriate learning opportunities.

5.6 Support Local e-Businesses and Local Entrepreneurship

Local e-business needs to be supported to make productive use of broadband. This includes facilitating local entrepreneurship, access to capital and a supportive legal and regulatory environment. This includes bringing more MSMEs online by providing training and subsidized broadband packages where necessary.

5.7 Review and adapt legal frameworks to take into account digitalization

A number of laws may need to be reviewed and/or adapted to take into account the effects of digitalization. Many developing countries lack adequate digital frameworks, laws and safeguards such as recognizing electronic transactions, protecting consumers online, strengthening cybersecurity, ensuring privacy and safeguarding of personal data. The protection of personal data is becoming particularly important with vast amounts of personal data moving from LDCs to multinational companies, as broadband use for global platforms increases.

5.8 Reduce taxes and Import Duties on Telecom/ ICT Equipment and Services

Tax reductions on telecommunication products and services can help make them more affordable to more people, and boost demand and take-up. As part of the measures to take to make broadband goods and services more affordable, Governments may wish to consider reducing taxes and import duties on telecommunication/ ICT equipment and services.