



# The State of Broadband: Broadband catalyzing sustainable development

September 2017

**BROADBAND COMMISSION**  
FOR SUSTAINABLE DEVELOPMENT



## Key Findings

The report highlights that it is increasingly difficult to define and monitor – let alone measure – broadband and ICTs. The latest technologies are increasingly integrated, invisible and ubiquitous. The boundaries between telecoms, IT, ICT and Internet are now rather blurred<sup>1</sup>. We are seeing fewer and fewer estimates of ICT revenues compared with five years' ago – not only are these estimates becoming more difficult to produce, but also to some extent, less meaningful.

Overall, broadband shows healthy growth, notes the report, although there are several emerging challenges:

- **Growing digital inequality between developed and developing countries.** Huawei's Viewpoint (Viewpoint 3) points out that in the GCI 2017 results, the 'Frontrunner' countries pulled even further ahead, improving their GCI scores by 4.7 points, while 'Adopters' improved by 4.5 points. However, the 'Starter' countries are lagging even farther behind, improving their GCI score on average by only 2.4 points.

Huawei suggests that this is the ICT equivalent of sociology's "Matthew Effect" with cumulative polarization, where the "rich get richer and the poor get poorer" based on accumulated advantage over time. Policy-makers in Adopter countries, and especially in digital Starter countries, must consider the inequality in connectivity scores, as it will have ongoing consequences for their ability to compete and sustain economic growth in the future digital economy and online trade and commerce.

- **Gap in transmission speeds is also increasing.** According to Akamai, worldwide, 4, 10, 15 and 25 Mbps broadband adoption rates increased by 13%, 29%, 33% and 42% year-on-year, respectively. Global average peak connection speed increased 28% year-on-year to 44.6 Mbps for Q1 2017. The Republic of Korea continues to have the highest average connection speed globally (at 28.6 Mbps, up an impressive 9.3% since Q4 2016 alone), while Singapore continues to have the highest peak connection speed at 184.5 Mbps. Meanwhile, the lowest performing countries continue to suffer from barely increased average national speeds, suggesting that the absolute gap is increasing.
- **Quality of connection & 'Under-served' people.** There is still less than half the world's population connected and using the Internet (48%). Only 76% of the world's population lives within access of a 3G signal, and only 43% of people within access of a 4G connection. Thus, the majority of the connected world remains under-connected, most of them in developing countries. Unless people have the opportunity to migrate from 2G to at least 3G to 4G and beyond, they remain under-connected.
- **Challenges in the rates, roll-outs and financing needs of new deployments and network upgrades.** There is evidence to suggest that 4G is being rolled out in urban centres in parallel with existing 3G networks, rather than in unconnected areas.
- **Overall slowing growth in mobile subscriptions and SMS volumes (as well as for some operators, revenues) and number of markets reach maturity.**

Operators are having to navigate slowing subscription growth and market maturity and adapt to meet consumer demand for data; and

- **Affordable Internet access challenges.** Dr. Speranza Ndege's Viewpoint in Viewpoint 19 explores the challenges in making Internet access more affordable in developing countries.
- **Remarkable fast-paced growth of IXPS in Africa.** Benin, Botswana, Burkina Faso, Côte d'Ivoire, Rep. of Congo, Madagascar, Malawi, Mozambique, Rwanda, Sudan and Zimbabwe all established an IXP over the last twelve months to mid-2017.

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<sup>i</sup> Bob O'Donnell, "10 Tech Predictions for 2017", 4 January 2017, available at: [www.techspot.com/article/1304-tech-predictions-2017/](http://www.techspot.com/article/1304-tech-predictions-2017/)