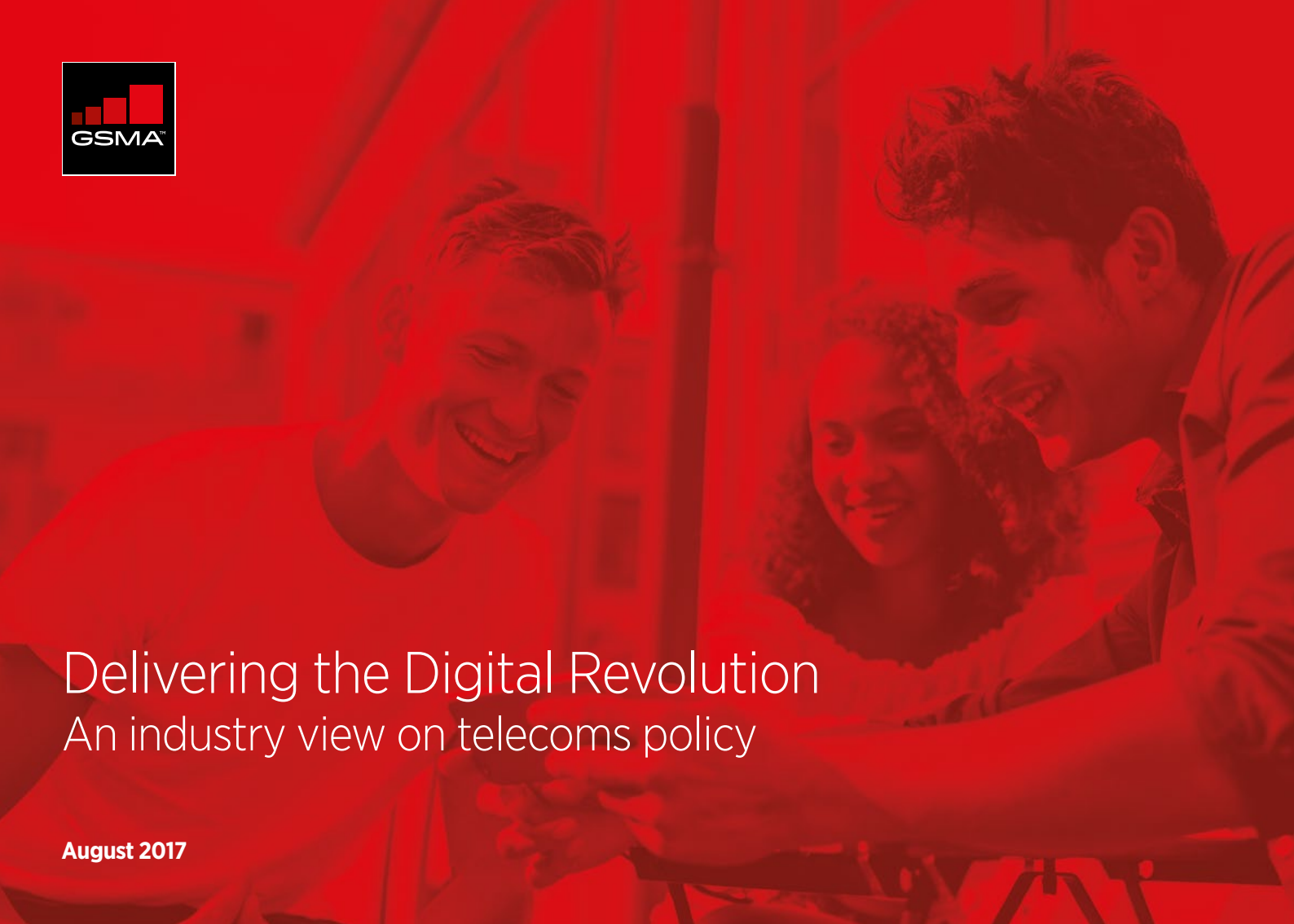

Delivering the Digital Revolution

An industry view on telecoms policy

August 2017

Delivering the Digital Revolution

With mobile service reaching over 95% of the global population and mobile internet access spreading fast, the digital revolution is empowering citizens and reshaping society all over the world. Recognising the value of mobile to society, many governments have set bold policies to cultivate the digital economy and protect consumers in the online environment, while ensuring the benefits of connectivity reach remote and underserved communities. As the mobile industry looks towards 5G to meet the demands of a digitalised world, the need for pro-investment policies and modernised regulatory regimes has never been greater.

The Digital Revolution Is Mobile

For 5 billion people, mobile phones are an indispensable companion in daily life. The astonishing spread of this technology is explained by its ability to satisfy a basic human desire to stay connected, while offering convenience, productivity and entertainment for people on the move. By 2020, three-quarters of mobile subscribers will have broadband connectivity, which opens the door to mobile applications and the internet.

From Tbilisi to Tianjin, people are using smartphones to look up an answer, negotiate a deal, speak to their child, download a song, book a ticket, get directions or even turn on the lights before they arrive home. This is the digital revolution, and the digital revolution is mobile.

Governments recognise mobile as an important platform for socio-economic development and the delivery of public services. Almost 95% of Estonia's 1.3 million residents carry an e-ID card, which can be used for conducting financial transactions, voting online, maintaining healthcare records and picking up e-prescriptions.[1] More than 1,000 mobile health services in developing countries are providing public information and diagnostic services. Mobile access is enabling new modes of teaching and increased opportunities for remote learning. Mobile money services are now serving over 400 million registered users in 92 countries, bringing financial services to previously unbanked people.[2] Countries such as Colombia, India and Malaysia are betting on digital to advance their economy and, where governments have adopted national digital strategies, mobile operators are contributing to these efforts.

Today, mobile is a key component in the digitalisation of industry, generating new levels of efficiency and productivity in manufacturing, logistics, energy, agriculture — and virtually every economic sector. Companies that do not make use of machine-to-machine technologies, improved analytics and sensors, for example, will find themselves outpaced by those that do. For consumers, there will be more intelligently connected appliances, more applications that react to users' location and environment, and more platforms and services centred on video streaming. The digital story is still evolving, and the mobile industry is playing a pivotal role in it.

1. GSMA, "Embracing the Digital Revolution: Policies for Building the Digital Ecosystem," February 2017
2. GSMA, "The Mobile Economy 2017"

Continuous Network Innovation

Responding to commercial opportunities, competition and consumer demand, the mobile industry has continually enhanced mobile network technologies, introducing 2G, 3G and 4G networks to deliver ever-increasing service performance and to accommodate the explosion of data traversing mobile networks. These waves of mobile evolution and expansion gave rise to the mobile internet and proliferation of smartphones, changing the very nature of the digital economy.[3] New competitive dynamics and the growth of a small number of internet players soon required mobile operators to transform their business models around the transmission of mobile data.

Enter the world of 5G. The next generation of mobile promises boundless connectivity and intelligent automation, taking network performance to a new level and providing a platform on which new digital services and business models can thrive. When 5G is fully developed and deployed, billions of people will be freed from limitations on data-intensive applications such as video streaming, and billions of machines will communicate without human intervention, delivering services such as sensor-driven smart parking or holographic conference calls.

To achieve the potential of the 5G era for consumers and industry, however, two critical elements are required: a substantial investment in digital infrastructure, which must come predominantly from private sources, and a digital environment that inspires trust.

Infrastructure Investment

The reach and performance of mobile networks depends on infrastructure. While most of the global population is covered by two or more mobile networks, there remain areas where mobile operators cannot expect any competitive advantage or return on the investment — so alternatives must be found if coverage is to be achieved. There are a number of approaches, from network and spectrum sharing to licence obligations to the direct use of public funds. India, for example, allows spectrum sharing in situations where both licensees own rights to spectrum in the same band. Mobile operators want to work with policymakers and regulators to find the best approach to ensuring access for all.

Trust

Likewise, the digital ecosystem can thrive only if the participants are confident that the environment is trustworthy. Transactions must be secure and private, personal data must be managed according to the law and accepted principles, harmful or criminal online activities must be mitigated and prosecuted, and devices and network infrastructure must be protected from attacks. The mobile industry has worked to educate consumers and develop new features that build trust in its services. Each new iteration of technology has introduced new features, such as encryption and user identification validation, which have made mobile services increasingly secure and minimised the potential for fraud, identity theft and other possible threats.[4]

Nevertheless, events are reported every day that erode consumer confidence. A survey of 8,000 consumers in the US and the five largest European economies found that concerns about data misuse remain at high levels across generations and countries. In the United States, for example, nine in ten 70- to-75 year-olds feel they need to be careful sharing personal data online, while eight in ten 18-to-34 year-olds feel exactly the same way.[5]

Policymakers and regulators create the conditions that can attract telecoms investment and strengthen digital trust

3. GSMA, "The Internet Value Chain, A Study on the Economics of the Internet," May 2016
4. GSMA, "Safety, Privacy and Security Across the Mobile Ecosystem: Key Issues and Policy Implications," February 2017
5. Boston Consulting Group, 21 June 2016, https://www.bcgperspectives.com/content/articles/big-data-advanced-analytics-technology-digital-bridging-trust-gap-hidden-landmine-big-data/

Policies for Progress

Policymakers and regulators create the conditions that can attract telecoms investment and strengthen digital trust, however regulatory reform has not, generally, kept pace with the converged, highly dynamic and evolving digital ecosystem. A holistic policy framework that reflects the changing digital landscape while reducing costs and barriers to network deployment will deliver the best outcomes for society and the economy.

Regulatory frameworks should be reviewed and updated to promote market dynamism, competition and consumer welfare, while discarding legacy rules that are no longer relevant in the context of the digital ecosystem. Regulatory objectives are best met by focusing on the services delivered to consumers, rather than the type of company or technology that delivers them. Prescriptive (ex ante) regulations should be replaced, where possible, with measurable, performance-based approaches.[6]

Competition policy is an effective and versatile tool to ensure the proper functioning of markets, and should be updated to reflect a number of characteristics of the digital economy. For example, control of data can confer a competitive advantage, and digital market assessments should not focus solely on price but also consider other dynamic effects on quality of service and performance. Better balance is required between telecoms sector regulation and competition law, with the latter augmented by better procedures and faster decision making.[7]

The landscape of digital trust includes many decision makers and implications for business as well as society. At their core, the rules designed to protect society should be applied evenly across the digital economy and not be so prescriptive that opportunities to innovate are blocked. In the dynamic digital environment, industry and business need the freedom — and responsibility — to figure out what works best. One example of this is the mobile industry's commitment to the principle of the open internet, while advocating flexibility in network management to deliver additional innovations and consumer benefits. Being too prescriptive in regulation and enforcement can get in the way of the best outcomes for consumers.

The Promise of the Future

As a result of digital technologies, the next generation is experiencing a fundamentally different life from what their parents have known. They have unprecedented access to information, resources and digital services that give them greater choice and ability to direct their lives. Digital is not a panacea — that is abundantly clear. But if industry and governments approach the digital revolution with the right mix of policies, regulations and consumer protections while providing the framework for companies to compete and innovate, then society will advance and the welfare of citizens will expand.

6. GSMA, "A New Regulatory Framework for the Digital Ecosystem," February 2016
7. GSMA, "Resetting Competition Policy Frameworks for the Digital Ecosystem," October 2016

Extending the Benefits of the Digital Age

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