

The Importance of National Policy Leadership

PHILLIPPA BIGGS

ANNA POLOMSKA

on behalf of the Broadband Commission Secretariat

ITU/UNESCO Broadband Commission for Digital

Development

With one-third of the world's population now online, the impact of—and need for—coordination between government policies and commercial strategies in the rollout and use of information and communication technologies (ICTs) have never been greater. As cross-cutting technologies, ICTs are creeping into our lives today in many different forms—from how we exchange news and views to how we share photos, meet up, or locate our friends, or even ourselves.

The use—and sometimes the abuse—of ICTs are driven by extremely fast technological evolution within a changing policy environment (Figure 1). A growing number of countries now recognize the importance of policy leadership and a clear cross-sectoral vision that can maximize the economic and social returns of ICTs. This can be seen in the strong growth in the number of national broadband plans (Figure 2). This chapter provides a brief overview of the growth of such national broadband plans and describes characteristics of a good plan, with reference to several examples: the US, UK, and Polish national broadband plans.

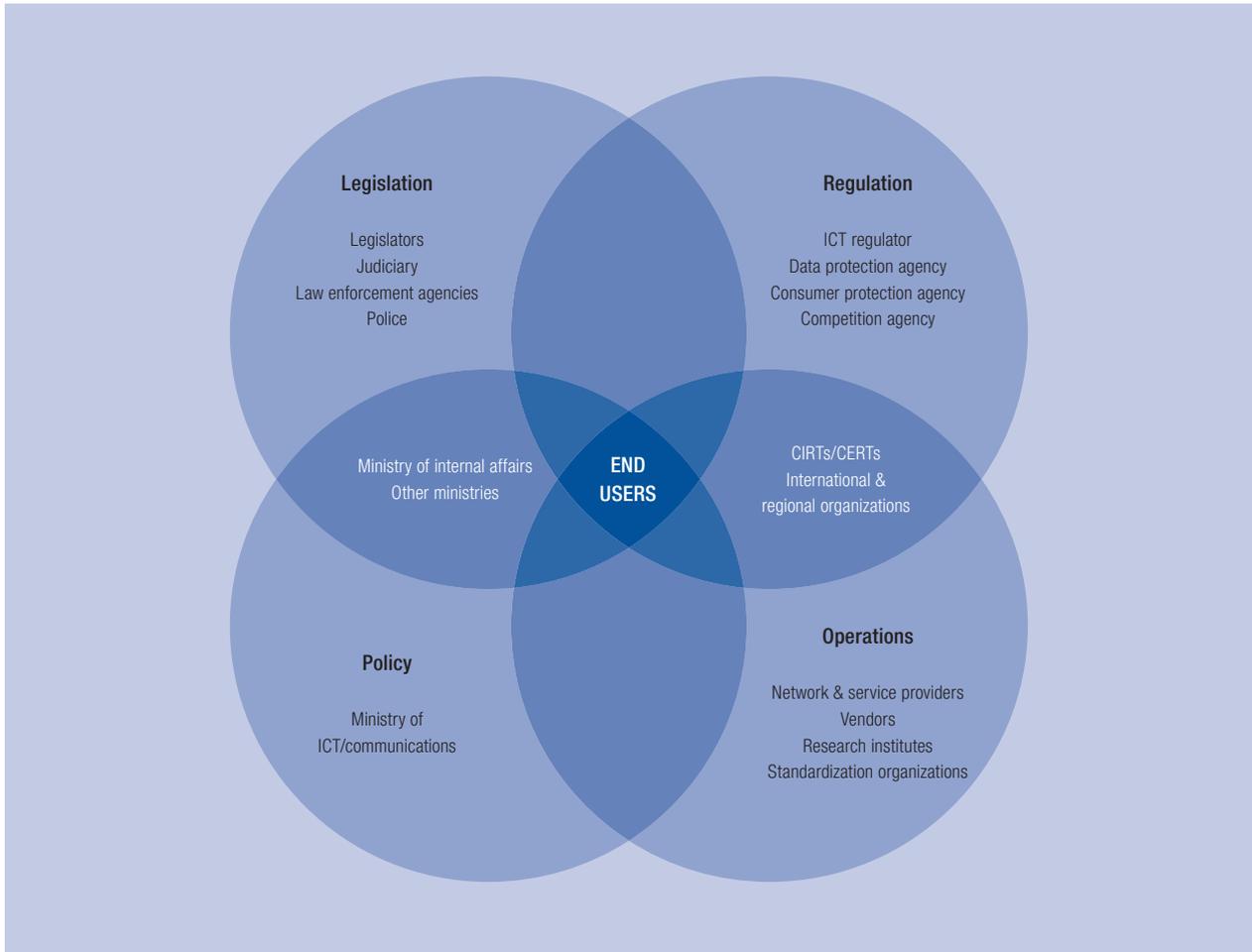
THE CHANGING POLICY CONTEXT

Throughout the 1960s and 1970s, economic arguments of natural monopolies and economies of scale underpinned the state's function as investor, operator, and (self-)regulator of telecommunication networks and services in many countries. Beginning in the 1980s, market liberalization saw private and competitive operators dramatically accelerate network rollout, reduce prices, and boost the efficiency of telecommunication service provision; these changes continued throughout the 1990s.¹ Regulators, initially established as arbiters overseeing the transition to a competitive market, subsequently carved out a role for themselves in overseeing principles of universal service provision, competition, and consumer protection.

The late 1990s and early 2000s witnessed the development of an equilibrium of sorts in Europe and North America, with private operator(s) in charge of investment, operations, and service provision; government in charge of high-level policy; and the regulator in charge of more specific concerns. Consensus opinion cast the die in favor of competitive, market-based mechanisms for the provision of telecommunication services, with governments cast in the role of “gap-fillers,” facilitators, and enablers, especially in instances of market failure.

This chapter reflects the views of its authors only and in no way reflects the views of ITU or its membership. The chapter draws on data and analysis taken from the ITU *Trends in Telecommunication Reform Report 2012*, and Chapter 1 of that report, “Overview of Trends in the ICT Market and in ICT Regulation,” authored by Nancy Sundberg and Youlia Lozanova.

Figure 1: Social media and unemployment project workflow



Source: Secretariat of the Broadband Commission for Digital Development.
 Note: CIRT = computer incident response team; CERT = computer emergency response team.

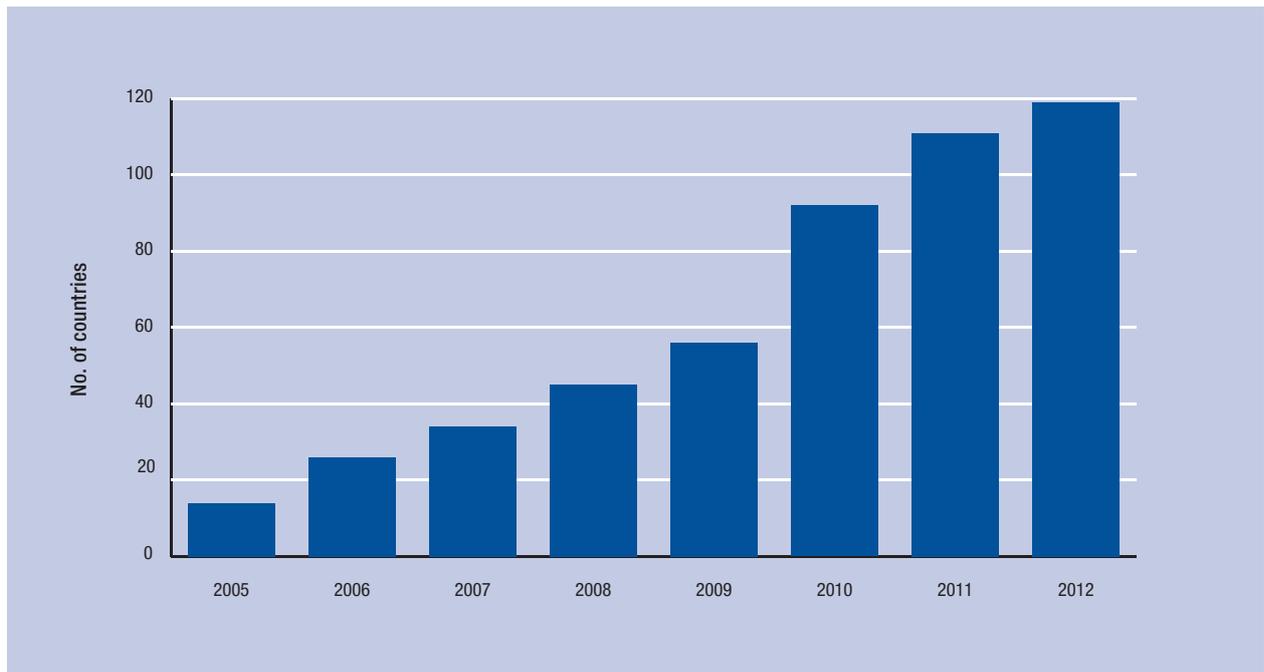
More recently, however, the pendulum of opinion may be shifting back to accord greater importance to the role of government in the rollout and deployment of telecommunication services. There are several forces driving this trend:

1. A growing body of evidence indicates sizeable positive externalities and strong returns to broadband networks. Statistical cross-country regression work generally puts broadband’s contribution to growth in GDP at between 0.25 percent and 1.4 percent, but this contribution is highly variable and depends on data availability, model specifications, and the individual country’s economic structure.² Such externalities underline how broadband networks are a part of national infrastructure that is vital for a nation’s economic competitiveness,³ and may help create a greater exchange of information and knowledge as an important national or international public good.⁴
2. As well as sizeable returns, the scale of network investments needed are today so massive, and take place over such long time horizons, that

many operators are struggling to finance network upgrades in the move to Internet Protocol (IP)–based networks,⁵ and are seeking alternative sources of funding, including from the state.⁶ For example, it is estimated that €50 billion are needed for energy and broadband network upgrades in Europe alone.⁷ Meanwhile, New Zealand’s Ultra-Fast Broadband (UFB) network buildout is expected to result in a total savings of \$NZ 32.8 billion over 20 years across all sectors of the economy (including healthcare, education, the business sector, and the dairy sector)⁸—savings that cannot be reflected or taken into account by the investment plans of any single operator.

3. Handset functionality, the speed of convergence, and the use of mobiles to deliver education, healthcare, and m-money (as well as Facebook updates or the organization of flashmobs and riots) means that mobile operators, vendors, and social networking services may be asked to play teacher, doctor, banker, and sometimes even policeman under certain circumstances.⁹

Figure 2: Growth in national broadband policies, 2005–12



Source: ITU World Telecommunication/ICT Regulatory Database.

As the technical capabilities of ICTs grow, operators—and policymakers—are taking on new roles as they grapple with more complex issues, including privacy and security. Alongside codified legislation, law enforcement, and specific regulation, policy visions for a connected nation can play a vital coordinating role and may optimize outcomes across the institutional context to the benefit of end users, who find themselves impacted by diverse policy considerations (Figure 1).

THE NEED FOR NATIONAL POLICY LEADERSHIP

Policy leadership can help highlight the role of broadband in national development, provide an enabling environment for private investment, coordinate dialogue, and encourage work across different sectors and ministries. Over the last few years, policy decision makers, communication ministries, and national regulators have made broadband a policy priority. The number of broadband plans and policies, as tracked by ITU and the Broadband Commission, has more than doubled since December 2009 (Figure 2). The explosion in national broadband plans in 2010–11 occurred partly in response to the financial crisis and the prioritization of national infrastructure investments in economic stimulus plans.¹⁰

By September 2012, some 119—or 62 percent—of all economies had developed a national plan, strategy, or policy to promote broadband; 12 countries—or 6 percent—are planning to introduce such measures in the near future (see Figure 3 and Appendix A). Europe

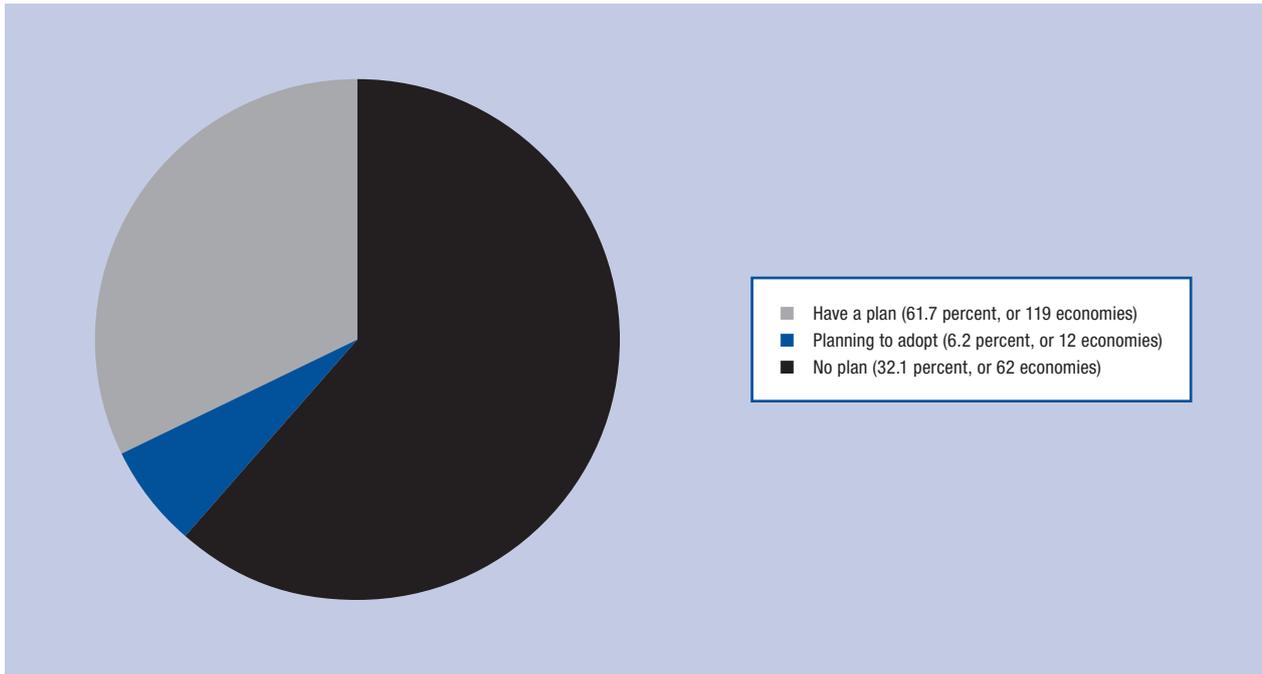
has a marked preference for national broadband plans, with some 88 percent of European countries having a plan and/or universal access and service (UAS) definition (Figure 4). Africa was well endowed with national plans from fairly early on, with ICTs included in International Monetary Fund/World Bank Poverty Reduction Strategy Papers. Plans have changed focus over time, with earlier plans produced between 2002 and 2006 generally tending to focus on ICTs or the Information Society. Plans between 2006 and the present have tended to focus explicitly on broadband; more recently, plans focus on broader, cross-sectoral considerations of the digital agenda.

The region with the fewest national broadband plans is the Arab States, which have generally revised universal service objectives to include broadband. However, 62 countries—or 32 percent of all countries—still do not have any broadband plan, strategy, or policy in place (Figure 3). Further, for those countries with plans, achieving progress in implementation may be more challenging or slower than envisaged. The number of national regulatory bodies also continues to grow. By September 2012, 159 countries had national regulatory bodies, up from 152 in 2008 and 124 in 2002.¹¹

Best-practice cases for broadband plans are by now well established. In his chapter for *Trends in Telecommunication Reform 2012*,¹² Horton suggests that:

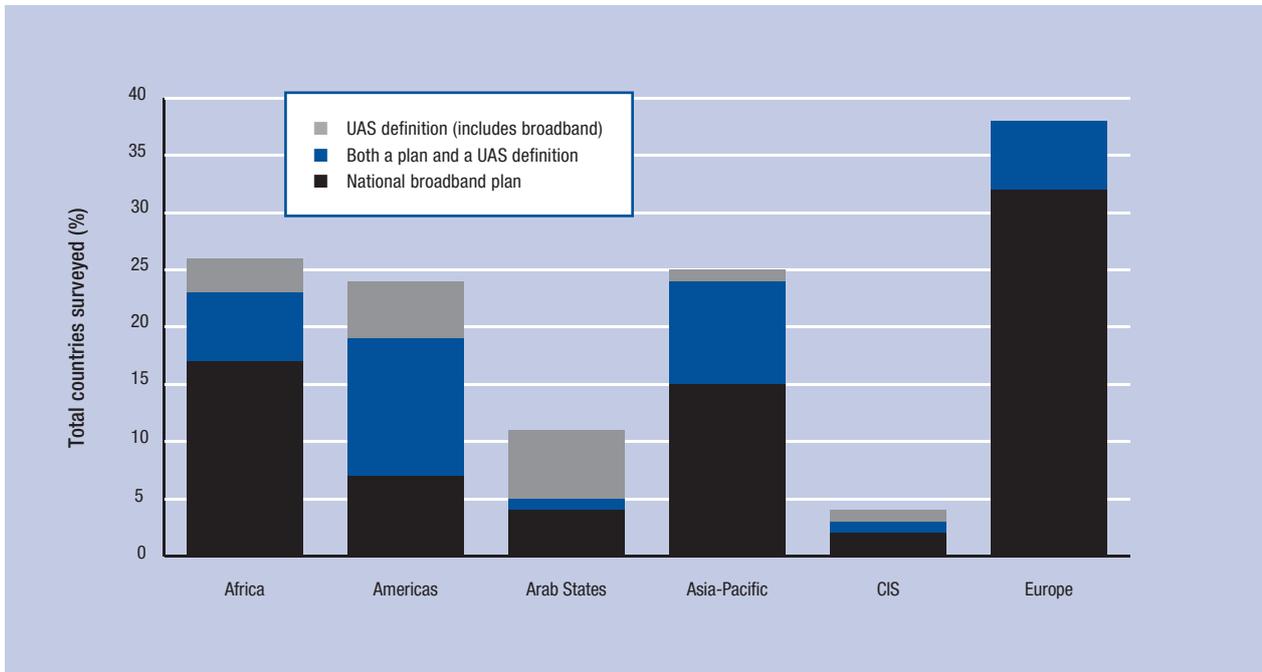
- Plans should be cross-sectoral across a range of different sectors (although they should also

Figure 3: Countries with a national policy, strategy, or plan to promote broadband, mid 2012



Source: ITU/UNESCO Broadband Commission for Digital Development.

Figure 4: Policy instruments used to promote universal service, 2012



Source: ITU World Telecommunication/ICT Regulatory Database.
 Note: UAS = Universal access and service.

assign a coordinating agency to be responsible for implementing the plan overall, in conjunction with other involved bodies).¹³

- Plans should make the case for broadband, specific to the needs and economic structure of that country, based on market analysis and benchmarking (Box 2).
- Plans should be developed in consultation with, and based on consensus with, a broad range of stakeholders.

In addition, comprehensive broadband plans can typically be characterized in the following ways:

- Many plans emphasize an important role for public-private partnership.
- Plans should consider both demand- and supply-side considerations. This may mean supporting the development of human skills, literacy, and demand among, for example, schools and small- and medium-sized enterprises, as well as taking into account (in many developing countries) the role of government in driving demand.
- Plans should look forward over a timescale of 5 to 10 years, as it may often be difficult to predict technological evolution over longer time horizons.
- Plans should be broadly technology-neutral. Plans can still include technology-specific measures (for example, they can consider spectrum issues in order to facilitate the rollout of mobile broadband). However, there should be no major implications in terms of favoring specific technologies over others.
- Plans should contain detailed, measurable goals and strategies to allow for the evaluation of progress. They may often also contain consideration of special interest groups such as schools, hospitals, universities, diverse languages, and access by minorities or people with specific needs.

In industrialized countries with high broadband penetrations, plans still play an important role as a clear statement of national policy priorities, such as targets for coverage or for a minimum speed (for example, the United Kingdom's digital agenda defines a national minimum speed of 2 Mb/s; see Box 3). The example of the National Broadband Plan of the United States illustrates many of the above aspects (Box 1).

National broadband plans should be based on a thorough market analysis and benchmarking in order to best understand current market trends and optimize

Box 1: The US National Broadband Plan

In 2009, the US Congress charged the Federal Communications Commission (FCC) with creating a National Broadband Plan to ensure that every American has "access to broadband capability." Creating the plan would entail exploring broadband deployment, adoption, and affordability, as well as the use of broadband to advance US national priorities, including civic participation; public safety; entrepreneurial activity; and the delivery of healthcare, energy, and education, among other priorities.

The FCC conducted an extensive public consultation, with over 41,000 pages of comments reviewed and over 30 public meetings held throughout the country. On March 16, 2010, the FCC delivered the Broadband Plan to Congress to help Americans harness its potential.¹ Since then, the FCC has emphasized the vital nature of broadband for US economic opportunity, job creation, innovation, and national competitiveness. Since the release of the Broadband Plan, the FCC has launched a number of programs that work toward its implementation. Among these programs are the Connect America Fund, which addresses universal service; a Mobility Fund for funding mobile coverage in unserved areas; the reformed Lifeline program for low-income Americans; and Connect2Compete to connect low-income students.

To promote regulatory certainty, the FCC has set out clear rules to protect the Internet's openness and promote innovation, investment, and competition, and has taken steps to free up additional spectrum (for both licensed and unlicensed broadband, including the use of white space). The FCC is seeking to make 25 more MHz of spectrum available and will launch the world's first incentive auctions to repurpose broadcast spectrum for mobile broadband. Since 2010, the FCC has made substantial progress, through over 60 initiatives, to achieve nearly 90 percent of items on its action agenda (www.broadband.gov). Today, the benefits of this dialogue on broadband are apparent—more Americans than ever are aware of the importance of broadband to their lives, investment in broadband infrastructure has risen significantly, and broadband speeds are increasing.

Note

- 1 See <http://www.broadband.gov/plan/>.

Source: Contributed by the Federal Communications Commission (FCC) of the United States, 2012.

network deployment to areas of maximum demand and usage. The US National Broadband Plan was notable for its thorough and detailed benchmarking of the national situation in broadband. However, even today, one-third of all American citizens have yet to adopt broadband.¹⁴ In Poland, benchmarking and analysis have played a significant role in helping attract and channel local investment and foreign direct investment (Box 2).

State funding for high-speed broadband networks may raise issues of competitive concerns and the crowding out of private-sector investment. For example, the European Commission recently conducted a

Box 2: The importance of benchmarking: The case of Poland

The Polish government introduced its Strategy for the Development of the Information Society in Poland until 2013 in 2008 and its long-term strategy, Poland 2030, in November 2011. Poland is currently preparing its forthcoming National Broadband Plan (the Plan) for 2013–20, under final consultation until mid-December 2012, enshrining the objectives of the European Union (EU)'s Digital Agenda. This Plan assumes that geographical areas of intervention will be determined on the basis of a nationwide coverage and infrastructure inventory exercise, under the Information System of Broadband Infrastructure (known by its Polish acronym SIIS) database.

The Plan sets out clear and measurable broadband targets:¹

1. universal access to the Internet by 2013,
2. universal access to broadband of the speed of at least 30 Mb/s by 2020, and
3. at least 50 percent of households with an Internet access of at least 100 Mb/s by 2020.

In addition, a law adopted in 2010 and designed with the participation of the Office of Electronic Communications (UKE)—the act supporting the development of networks and services—speeds up investment and supports broadband Internet access in Poland by requiring duct infrastructure to be located along new and rebuilt roads.

Accurate data on existing infrastructure is vital to tailoring policy and regulation, and to attracting investment to areas without broadband. UKE collects data every year on infrastructure and broadband Internet access for both fiber and wireless networks. An understanding of coverage will optimize investments by operators and local government and allow for the long-term planning of telecommunication infrastructure development.

The Polish Telecommunication Institute, UKE, and the Ministry of Administration and Digitization (previously the Ministry of Infrastructure) have developed the dedicated SIIS database, implemented and overseen by UKE. Detailed information is presented in the form of tables, charts, and maps at the provincial and commune levels. UKE has collected data on the status of infrastructure and investment projects in the following areas:

- fiber optic network terminations,
- telecommunications network nodes,
- access nodes,
- coverage of cable and wireless networks,
- penetration of cable connections or wireless terminals in buildings,

- occurrence of cable connections or wireless terminals in residential buildings, and
- the existence of buildings enabling colocation.

The data are used by:

- telecommunication operators and Internet service providers for making business decisions about new investment projects and market competitiveness,
- other investors in planning investments,
- local self-government and other local government units,
- businesses and consumers for choosing the most attractive technologies and competitive market offers,
- regional operational programs and the Eastern Poland Operational Program for notifications to the European Union of plans for the rollout of regional broadband networks, and
- local government authorities for issuing opinions with regard to public resources expenditure on the rollout of telecommunication networks.

UKE uses these data as a tool for analysis to determine the direction for broadband network investment and development, address gaps in coverage, and support local government units—for example, through the establishment of areas entitled to apply for state aid in the further development of infrastructure. The database also helps big businesses and small- and medium-sized enterprises determine where—in which locations and which technologies—to invest.

Poland, during the preparation of guidelines for its new financial perspective for the years 2014–20, enshrines the objectives of the EU Digital Agenda in its forthcoming Plan, currently in draft form. The Plan assumes that the geographical areas of intervention will be determined on the basis of nationwide coverage and infrastructure inventory accumulated in the SIIS system. The system has become a tool to determine which areas are in need of funding, to detect and eliminate gaps in the coverage of high-speed network bandwidth and improve offers aimed at the less-developed areas, and to determine in what locations and in what technology investment is justified.

Note

- 1 National Broadband Plan (Draft), available from the Ministry of Administration and Digitization (formerly the Ministry of Infrastructure), at <http://www.transport.gov.pl/files/0/1794416/NARODOWYPLANSZEROKOPASMOWY.pdf>.

Source: Contributed by the Office of Electronic Communications (UKE) of Poland, 2012.

Box 3: Britain's Superfast Broadband Future

Britain's Superfast Broadband Future sets out the UK government's vision for broadband in the United Kingdom and how this will be achieved, including the benchmarking of current market deployment in the United Kingdom and the monitoring of progress. The vision was to have the "best superfast broadband network in Europe by 2015"—with targets of 90 percent of the population having access to superfast broadband (defined as 24 Mb/s) and the rest of the population to have access to at least 2 Mb/s by 2015.

The UK government has committed to investing £530 million in public funds by 2015 to support this goal. The three devolved administrations in Scotland, Wales, and Northern Ireland, and over 40 English local authorities, have developed local broadband plans and committed funding to match the government's contribution. These projects are now entering the procurement phase; the scheme received state aid approval from the European Commission on November 20, 2012. A smaller, £20 million fund—the Rural Communities Broadband Fund—is targeted at small-scale broadband projects in rural areas, and has over 50 projects under consideration.

The government has also committed £150 million to establish an Urban Broadband Fund, which will support projects in major cities to provide high-speed connectivity—both fixed and wireless, with a strong emphasis on small- and medium-sized enterprises and on stimulating demand for high-speed broadband services.

The strategy foresees "private sector investment freed from unnecessary barriers, supported by government funding where the market cannot reach unaided." A package of measures was announced on September 7, 2012, aimed at supporting and enabling private-sector investment, including streamlining planning restrictions on broadband infrastructure and producing new guidance to local authorities in relation to the laying of fiber and digging of trenches in streetworks schemes.

The strategy is technology-neutral. It recognizes that a mix of technologies—fixed, wireless, and satellite—are needed to deliver superfast broadband throughout the United Kingdom: one technology choice will not be suitable for all circumstances. However, extending high-capacity fiber optic deeper into the network will be a key feature of the United Kingdom's network going forward. Progress is reported in the *Ofcom Infrastructure Report*, with 65 percent of premises now able to access superfast broadband and average download speeds having risen to 12.7 Mb/s.

Sources: UK Government, Department for Culture, Media & Sport; BIS 2010; Ofcom 2012.

Note: The United Kingdom also supports European targets for minimum broadband speeds of 30Mb/s to every home and business in Europe by 2020, and 50 percent take-up of 100 Mb/s services by 2020.

consultation and sought comments on the application of EU state aid rules to the public funding of broadband networks over the summer of 2012, with a view to adopting definitive broadband guidelines in December 2012.¹⁵ The revised guidelines propose the possibility of supporting ultra-fast broadband networks under certain conditions.

The UK government has committed to ensuring the rapid rollout of superfast broadband across the country and "the best superfast broadband network in Europe by 2015."¹⁶ It has detailed in precise terms how it intends to achieve this in the strategy document *Britain's Superfast Broadband Future* (described in Box 3), which sets out clear arguments for greater access to broadband as well as identifying the services enabled by broadband.

LOOKING FORWARD

Countries today are prioritizing the importance of policy leadership, as shown by the growth in the number of national broadband plans. International organizations also recognize the importance of policy leadership. Every year, ITU hosts a Global Symposium for Regulators and Global Regulators-Industry Dialogue (GRID) to debate the trends transforming the ICT environment and to consider their impact on the regulatory environment, with the outcomes published in the form of best-practice guidelines.¹⁷ The Broadband Commission for Digital Development meets twice annually to consider the trends and issues specific to broadband policy and publishes its annual *State of Broadband* report, providing a snapshot of the latest broadband market trends.

At a time of rapid technological evolution and heightened economic uncertainty, it is vital for governments, the industry, and regulators to work together to review and regularly update regulatory and policy frameworks. In this way we can ensure that the frameworks are flexible, appropriate, and regularly updated, can achieve optimal outcomes for network deployment and national economic competitiveness.

NOTES

- 1 ITU 2002.
- 2 Katz 2011.
- 3 See, for example, comments by US Vice-President Joe Biden, who said at Seneca High School, on July 1, 2009, "The bottom line is, you can't function—a nation can't compete in the 21st century—without immediate, high-quality access for everything from streaming video to information online. . . . Getting broadband to every American is a priority for this Administration" (Nephtin 2009). See also comments by Neelie Kroes, Vice-President of the European Commission responsible for the Digital Agenda, who asked at the European Telecom Network Operators Connecting Europe Facility Conference in Brussels in October 2012, "Are we going to take our place as the connected, competitive continent? Or are we going to stay antiquated and analogue?" (Kroes 2012).

- 4 Stiglitz 1999. In his chapter in *Providing Global Public Goods: Managing Globalization*, Stiglitz argues that telecommunications and the Internet are themselves global public goods; however, most observers agree that it is the knowledge and information provided over the Internet that are non-rivalrous and non-excludable, rather than the networks (which may be rivalrous and excludable).
- 5 According to the report *Telecom Operators: Let's Face It* (Exane BNP Paribas-Arthur D. Little 2012), telecommunication companies face the choice of becoming mega operators with a global footprint, local heroes focusing mainly on their national market or immediate local markets, or engaging in a play for infrastructure only.
- 6 ITU 2009.
- 7 For example, under the Connecting Europe Facility (CEF), it is proposed to spend €50 billion over six years, from 2014 to 2020, with €9.2 billion earmarked for broadband and digital services to promote growth, jobs, and competitiveness through targeted infrastructure investment at the level of the European region. This will support the rollout of high-performing, sustainable, and joined-up trans-European networks in the fields of transport, energy, and broadband and digital services.
- 8 Alcatel Lucent Bell Labs 2011. The total impact of New Zealand's Ultra-Fast Broadband (UFB) network of \$NZ 32.8 billion over twenty years include 5.9 \$NZ billion for healthcare, 3.6 billion \$NZ for education, 14.2 \$NZ billion for business, and 9.1 \$NZ billion for dairy. Estimations of the economic benefits to New Zealand of UFB applications take into account both increased returns and savings.
- 9 See, for example, calls by Prime Minister David Cameron for social media services to be monitored and/or shut down during the riots in the United Kingdom in August 2011, available from www.guardian.co.uk/media/2011/aug/11/david-cameron-rioters-social-media.
- 10 ITU 2009.
- 11 ITU 2012.
- 12 Horton 2012.
- 13 Kelly and Rossotto 2012.
- 14 Statement by Mr Julius Genachowski, Chairman of the US Federal Communications Commission (FCC) to the New York meeting of the Broadband Commission for Digital Development on 23 September 2012.
- 15 "State Aid: Commission Consults on Draft Guidelines for Broadband Networks." Available at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/550&format=HTML&age=d=0&language=EN&guiLanguage=en>.
- 16 BIS 2010.
- 17 See ITU's regulatory website, www.itu.int/ITU-D/treg/index.html; for details of the latest Global Symposium for Regulators, GSR-2011, see www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR11/index.html; and for previous GSR events, see www.itu.int/ITU-D/treg/Events/Seminars/GSR/index.html.
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Appendix A: Selected economies with national broadband policies, 2012

Country/Economy	Policy available?	Year policy was adopted	Type	Title/details
Afghanistan	Yes	2008	Strategy	Afghanistan National Development Strategy: 1387–1391 (2008–2013)
Albania	Yes	2008	Strategy	E-Albania
Algeria	Yes	2008	Strategy	E-Algérie 2013
Andorra	Yes	2009	Policy	Universal Access Service
Antigua & Barbuda	Yes	2012	Strategy	GATE 2012
Argentina	Yes	2010a	Plan	Plan Nacional de Telecomunicaciones Argentina Conectada
Australia	Yes	2009	Plan	National Broadband Network
Austria	Yes	2010	Plan	Breitband strategie 2020
Azerbaijan	Planned			Pending
Bahrain	Yes	2010	Policy	National BB Network for the Kingdom of Bahrain
Bangladesh	Yes	2009	Universal Access Service	Broadband National Policy Act 2009
Barbados	Yes	2010	Plan	National Information and Communication Technologies Strategic Plan of Barbados 2010–2015
Belgium	Yes	2009	Plan	België: digitaal hart van Europa
Belize	Yes	2011	Strategy	ICT National Strategy
Benin	Planned			
Bhutan	Yes	2008	Plan	National Broadband Master Plan Implementation Project (NBMIP)
Botswana	Yes	2004	Strategy	Botswana's National ICT Policy
Brazil	Yes	2010	Plan	National Broadband Plan (Plano Nacional de Banda Larga – PNLB); Costa's Plan
Brunei Darussalam	Yes	2008	Plan	National Broadband Blueprint
Bulgaria	Yes	2009	Strategy	National Strategy of broadband development in Republic of Bulgaria
Burkina Faso	Yes	2006	Policy	Lettre de politique sectorielle 2006–2010
Burundi	Yes	2011	Project	Burundi/ICT: National projects for broadband connectivity; Burundi Community Telecentre Network (BCTN)
Canada	Yes	2010	Plan	Broadband Canada: Connecting Rural Canadians
Cape Verde	Planned			Pending
Central African Rep.	Yes	2006	Strategy	Politique, Stratégies et plan d'actions de l'édification de la Société de l'Information en République Centrafricaine
Chad	Yes	2007	Plan	Plan de développement des technologies de l'Information et de la Communication au Tchad ou PLAN NICI
Chile	Yes	2010	Strategy	Strategy for Digital Development; La Agenda Digital del Gobierno de Chile para el periodo 2010–2014/ICT as a part of Chile's Strategy for Development: Present Issues and Challenges

Country/Economy	Policy available?	Year policy was adopted	Type	Title/details
China	Yes	2010	Initiative	Three Network Convergence—National Government Investment
Colombia	Yes	2011	Plan	Live Digital—Vive Digital
Comoros	Planned			
Congo	Yes	2009	Program	West Africa Cable System (WACS)
Cook Islands	Yes	2003	Policy	National ICT Policy
Costa Rica	Yes	2012	Strategy	Estrategia Nacional de Banda Acha
Côte d'Ivoire	Yes	2010	Strategy	Objectifs Strategiques du Gouvernement de Côte d'Ivoire en Matiere de Telecommunications et de TIC
Croatia	Yes	2011	Strategy	Strategy for Broadband Development in the Republic of Croatia for 2012–2015
Cuba	Planned			
Cyprus	Yes	2012	Strategy	Digital Strategy for Cyprus, which includes the Broadband Plan
Czech Republic	Yes	2011	Strategy	Digital Czech Republic—State policy in electronic communications
Denmark	Yes	2010	Plan	Digital work program by the Minister of Science, Technology and Innovation.
Djibouti	Yes	2004	Program	Plan d'action national pour l'exploitation des TIC en République de Djibouti pour le développement national, EASSy
Dominican Republic	Yes	2007	Program	Conectividad Rural de Banda Ancha E-Dominicana (includes rural broadband connectivity program)
Ecuador	Yes	2011	Plan	Estrategia Ecuador Digital 2.0 and BB PLAN
Egypt	Yes	2011	Plan	National Broadband Plan: A Framework for Broadband Development
Equatorial Guinea	Yes	2010		
Estonia	Yes	2006	Strategy	Information Society Development Plan 2013
Ethiopia	Yes	2005	Policy	ICT Policy
Fiji	Yes	2011	Policy	National Broadband Policy
Finland	Yes	2005	Project	Broadband 2015 Project; Kainuu Information Society Strategy 2007–2015
France	Yes	2010	Plan	Plan national très haut débit
Gabon	Yes	2011	Strategy	Digital Gabon: vaste Programme de réformes multi sectorielles dont la finalité est de faire du Gabon un Pays Emergent, à travers les piliers suivants: Gabon Industriel, Gabon vert et Gabon des Services
Gambia	Yes	2008	Plan	The Gambian ICT4D-2012 Plan
Germany	Yes	2009	Strategy	Breitbandstrategie der Bundesregierung
Ghana	Yes	2010	Strategy	Broadband Wireless Access
Greece	Yes	2006	Plan	Digital Strategy 2006–2013
Grenada	Yes	2006	Strategy	Information and Communication Technology (ICT): A Strategy and Action Plan for Grenada: 2006–2010
Guinea	Yes	2009	Plan	Plan National de frequences/Plan de développement de l'infrastructure nationale d'information et de communication de la République de Guinée 2001–2004
Guyana	Yes	2011	Project	E-Guyana

Country/Economy	Policy available?	Year policy was adopted	Type	Title/details
Honduras	Yes	2010	Policy	Resolución NR 005/10—Normativa que regulará la prestación de servicios de telecomunicaciones con conectividad de banda ancha
Hungary	Yes	2010	Plan	Digital Renewal Action Plan
Hong Kong SAR	Yes	2008	Strategy	Digital 21
Iceland	Yes	2005	policy	Telecom Policy Statement 2005–2010; new policy statement coming
India	Yes	2011	Plan	National Optical Fibre Network
Indonesia	Yes	2010	Strategy	Priorities of the Ministry of Communication and Information Technology Year 2010–2014
Iraq	Planned			
Ireland	Yes	2008	Strategy	Ireland's Broadband Strategy
Israel	Yes	2012	initiative	The Communication Initiative: fiber-based national broadband network
Italy	Yes	2010	Plan	Italia Digitale (Digital Italy, Plan)
Jamaica	Yes	2007	Strategy	National ICT Strategy
Japan	Yes	2010	Plan	New Broadband Super Highway (Haraguchi vision II)
Jordan	Yes	2007	Strategy	National ICT Strategy of Jordan
Kazakhstan	Yes	2010	Strategy	Programme of ICT Development
Kenya	Yes	2006	Plan	ICT MasterPlan 2012-2017
Korea, Rep.	Yes	2009	Plan	Ultra Broadband Convergence Network
Latvia	Yes	2005	Strategy	Broadband development strategy for 2006–2012
Lebanon	Yes	2008	Strategy	Lebanese Broadband Stakeholders Group (LBSG)
Liberia	Planned			National fiber backbone network
Liechtenstein	Yes	2006	Universal Access Service	Communications Act—Law on Electronic Communication
Lithuania	Yes	2005	Strategy	Strategy of Broadband Infrastructure Development in Lithuania in 2005–2010
Luxembourg	Yes	2010	Strategy	Stratégie nationale pour les réseaux à "ultra-haut" débit—L' "ultra-haut" débit pour tous
Macedonia, FYR	Yes	2005	Strategy	National Strategy for the Development of Electronic Communications with Information Technologies
Malawi	Yes	2003	Project	An Integrated ICT-led socioeconomic development policy for Malawi
Malaysia	Yes	2010	Plan	National BB Implementation NBI
Malta	Yes	2012	Policy	Provision of access at a fixed location
Marshall Islands	Planned			
Mauritius	Yes	2012	Policy	National Broadband Policy 2012–2020 (NBP2012)
Mexico	Yes	2011	Strategy	Digital Agenda
Micronesia	Planned			
Moldova	Yes	2010	Program	Hotărâre cu privire la aprobarea Programului de dezvoltare a accesului la Internet în bandă largă pe anii 2010-2013
Mongolia	Yes	2011	Program	National Program on Broadband Network up to 2015

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Montenegro	Yes	2012	Strategy	Strategy for the Development of Information Society 2012–2016—Montenegro–Digital Society
Morocco	Yes	2012	Plan	Plan national pour le développement du haut et très haut débit au Maroc
Namibia	Yes	2009	Policy	Telecommunications Policy for the Republic of Namibia
Nepal	Planned			Currently a draft under consultation
Netherlands	Yes	2010	Strategy	Digital Agenda
New Zealand	Yes	2010	Plan	Ultra-fast broadband initiative, Five Point Government Action Plan for faster broadband
Nicaragua	Planned			
Nigeria	Planned		Policy	National ICT policy—draft
Norway	Yes	2001	Plan	Action Plan on Broadband communication
Oman	Yes	2012	Strategy	National Broadband Strategy
Pakistan	Yes	2007	Program	National Broadband policy 2004, National Broadband Programme 2007
Panama	Yes	2008	Strategy	National ICT Strategy 2008–2018—la Autoridad de Innovación Gubernamental
Papua New Guinea	Yes	2011	Policy	National ICT Policy and PNG LNG Fibre cable project
Paraguay	Yes	2011	Plan	Paraguay 2013 Conectado y Plan Nacional de Telecomunicaciones—PNT
Peru	Yes	2010	Plan	Plan Nacional Para el Desarrollo de la Banda Ancha en el Perú
Philippines	Yes	2011	Strategy	The Philippine Digital Strategy, Transformation 2.0: Digitally Empowered Nation
Poland	Yes	2008 and 2010	Strategy and Law	The Strategy for the Development of the Information Society in Poland until 2013 Mega-Bill: The act on supporting the development of telecommunications services and networks
Portugal	Yes	2010	Strategy	Digital Agenda 2015 (2010–2015),
Qatar	Yes	2011	Plan	Qatar's National ICT Plan 2015: Advancing the Digital Agenda; Qatar National Broadband Network (Q.NBN)
Romania	Yes	2007	Strategy	The Regulatory Strategy for the Romanian Electronic Communications Sector for 2007–2010
Russian Federation	Yes	2010	Strategy	Information Society Strategy Information Society Programme
Rwanda	Yes	2006	Plan	Regional Connectivity Infrastructure Program (RCIP)
Samoa	Yes	2010	Plan	Broadband Spectrum Plan
Saudi Arabia	Yes	2010	Universal Access Service	USF strategic Plan, Kingdom's strategy for the deployment of broadband services (waiting for official approval)
Senegal	Planned			
Serbia	Yes	2009	Strategy	BB Strategy till 2012, Стратегију развоја широкопојасног приступа у Републици Србији до 2012. Године (Strategy for the development of broadband in the Republic of Serbia until 2012)
Singapore	Yes	2005	Strategy	Intelligent Nation 2015 (or iN2015)
Slovak Republic	Yes	2006	Program	Operačný Program Informatizácia Spoločnosti (Operational Program- Information society)

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Slovenia	Yes	2008	Strategy	Strategija razvoja širokopasovnih omrežij v Republiki Sloveniji (Broadband Network Development Strategy)
Solomon Islands	Planned			
South Africa	Yes	2010	Policy	Broadband Policy for SA
Spain	Yes	2010	Plan	Plan Avanza: Plan Avanza: 2005, Plan Avanza 2 aprobado el 16/07/2010
Sri Lanka	Yes	2012	Plan	2012 - HSBB NBP to be launched, e- Sri Lanka
St. Kitts and Nevis	Yes	2006	Plan	National Information and Communications Technology (ICT) Strategic Plan
St. Lucia	Planned			
St. Vincent and the Grenadines	Planned			
Sudan	Planned			
Sweden	Yes	2011	Strategy	BB Strategy for Sweden
Switzerland	Yes	2007	Universal Access Service	The universal service with regard to telecommunications
Tanzania	Yes	2004	Project	National Information Communication and Technology Broadband Backbone (NICTBB)
Thailand	Yes	2010	Policy	The National Broadband Policy
Taiwan, China	Yes	2011	Policy	Broadband for Villages and Broadband for Tribes
Togo	Planned			
Tonga	Yes	2011	Project	Tonga-Fiji Connectivity Project : Pacific Regional Connectivity Program (PRCP)
Trinidad and Tobago	Yes	2008	Strategy	Trinidad & Tobago's National Information & Communication Technology Strategy-Fastforward—Accelerating into the Digital Future
Tunisia	Yes	2012	policy	
Turkey	Yes	2006	Strategy	Information Society Strategy 2006–2010; Ninth Development Plan 2007–2013
Uganda	Yes	2009	Strategy	Uganda Broadband Infrastructure Strategy National Position Paper
United Kingdom	Yes	2010	Strategy	Britain's Superfast Broadband Future, Broadband Delivery UK
United States	Yes	2010	Plan	Connecting America: The National Broadband Plan
Vanuatu	Planned			
Vietnam	Yes	2010	Plan	Master Plan of Viet Nam, from 2010 to 2015 and Prime Minister's Decree 1755/QĐ-TTg on the approval of a National Strategy on Transforming Viet Nam into an advanced ICT country
Zimbabwe	Yes	2005	Initiative	Connection to the undersea cable initiatives promotes broadband usage

Source: ITU/UNESCO Broadband Commission for Digital Development (www.broadbandcommission.org), based on the ITU ICT Eye regulatory database, available at <https://www.itu.int/ITU-D/icteye/>.