bcg.perspectives
by THE BOSTON CONSULTING GROUP

50 YEARS SHAPING THE FUTURE. TOGETHER.

REFORMING EUROPE'S TELECOM REGULATION

By Wolfgang Bock, Björn Röber, and Peter Soos

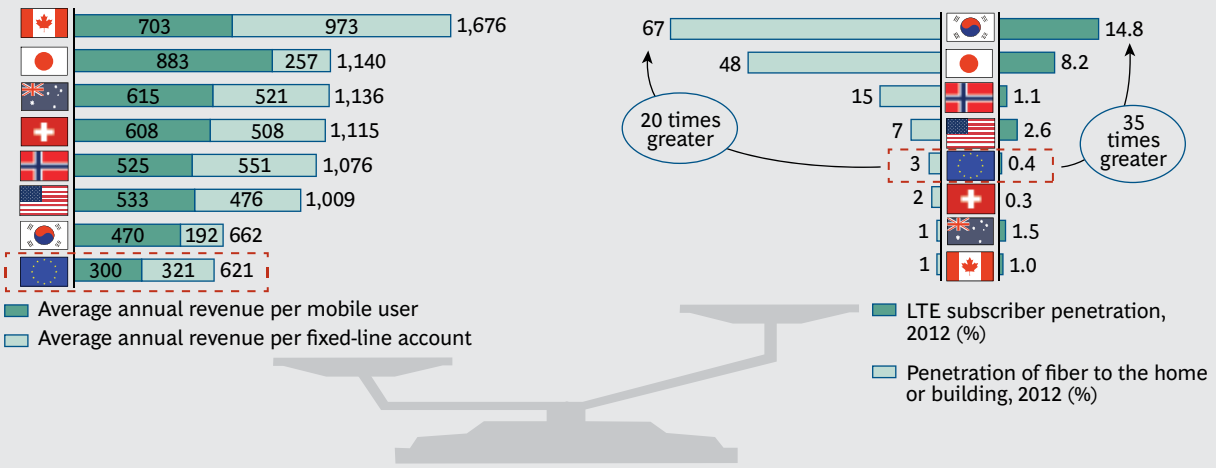
The Boston Consulting Group recently completed a major study, commissioned by the European Telecommunications Network Operators' Association (ETNO), of the economic impact of regulations on the telecom market in the European Union, with particular respect to development of advanced next-generation networks. The full report provides our complete findings, analysis, and recommendations for regulatory reform. These are summarized in the article below. (To read the report, go to http://www.etno.eu/datas/publications/studies/BCG_ETNO_REPORT_2013.pdf.)

THE STAKES ARE HIGH. The vision of the European Commission's Digital Agenda, which is meant to "help to reboot the EU economy and enable Europe's citizens and businesses to get the most out of digital technologies," could be at risk. On the other hand, the changes necessary to ignite up to €750 billion in GDP growth and create as many as 5.5 million new jobs by 2020 are within the grasp of the EU authorities, including the directorates-general for communication networks (DG Connect) and competition (DG Comp), as well as the European Parliament and Council. Will they—and others—rise to the challenge?

BCG research last year showed that European consumers reap substantial value from the digital economy—an estimated €3,700 annually per connected consumer in France, €3,000 in Germany, and €2,600 in the U.K., for example. We also estimated that the Internet economy will contribute some €880 billion, or nearly 6 percent, to the GDP of the EU in 2016.

Unfortunately, however, while it has long been a leader in innovation and the technologies that comprise the backbone of the digital economy, Europe has fallen behind in ultra-fast-mobile and fixed-Internet connectivity. European consumers may pay less for digital connectivity, but they are largely missing out on the advanced services and experiences that are available on next-generation networks in much of the rest of the world. (See Exhibit 1.) Many markets in Asia and North America enjoy fiber access penetration that is up to 20

EXHIBIT 1 | The Costs Are Lower for European Consumers, but Advanced Network Penetration Is Low, Too



Sources: Informa; IE Market Research; BCG analysis.
Note: LTE = long-term evolution. Numbers may not add up to the total because of rounding.

times higher, as well as penetration of high-speed long-term evolution (LTE) mobile networks that is as much as 35 times greater. The result for European consumers and businesses is slower, less reliable connections, leading to less value for consumers and lower economic growth.

European investment in telecommunications infrastructure has declined by approximately 2 percent a year over the last five years, meaning that some €3.5 billion less was invested in 2012 than in 2008. In contrast, infrastructure investment in comparable international markets has increased at about 2 percent a year over the same period. Europe's ability to invest in next-generation access networks (NGAs) will fall further as revenues in the European telecommunications sector continue to contract by as much as 2 percent a year through 2020, according to our estimates. By 2020, we project that the shortfall in investment needed to meet EU Digital Agenda targets for broadband coverage and penetration, both fixed line and mobile, will aggregate between €110 billion and €170 billion.[1]

One of the root causes of the current situation is outdated and intrusive regulation that distorts market-based competition and discourages capital investment, particularly by telcos, in high-speed, high-capacity NGAs. These trends must be turned around if Europe is to remain innovative and competitive in the global digital marketplace, not to mention if it is to meet many of the goals of the Digital Agenda. Doing so requires a shift in the approach to regulation on three levels:

- From sector-specific regulation, enacted at the member state level, to a fully harmonized—and substantially reduced—pan-European regulatory approach, relying mostly on established competition law
- From primarily assessing the societal impact of industry moves, such as mergers based on the near-term effect on prices, to short- and long-term holistic views of all the ramifications for consumers, including the benefits of more investments
- From a view of the market that is based on narrow and rigid definitions of networks, services, technologies, and national borders to a paradigm that embraces a full view of the value chain in a "technology agnostic" manner (that is, without a bias toward any single technology) and with a differentiated geographic lens (local as

opposed to national as opposed to pan-European) based on the service provided

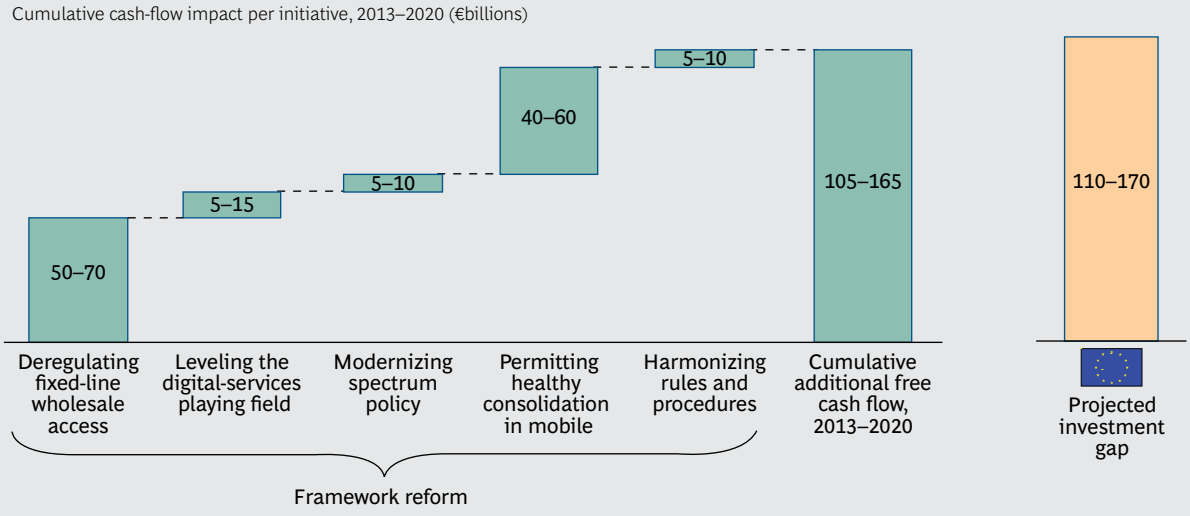
The good news is that making such a shift is entirely within the purview of the EU authorities. We propose five measures that we believe will reverse the regulatory root causes of declining telecommunications investment and help unlock the funding required to build the ultra-fast connectivity that is increasingly the lifeblood of the digital economy. (See Exhibit 2.) We would argue that, over the long term, few endeavors can benefit consumers and the EU economy more.

Deregulating Fixed-Line Wholesale Access. Developed pursuant to a 2002 EU directive, the current patchwork system of national rules mandating network access—and the price at which it must be provided—hopes to foster competition by the outdated strategy of encouraging more retail competitors in any given market. The actual impact today is to create disincentives to invest in NGAs that provide more-reliable, faster access for consumers and businesses.

Operators today can make a viable business case for upgrading to NGAs in only a few localities. In many instances, the current rules override market mechanisms for extracting value from such investments. More than 55 percent of localities today have multiple competing fixed-line infrastructures. Assessing competition on a local level and in a technology-agnostic way would allow for the removal of access rules in many areas. These discourage new investments by serving as substantial barriers against achieving reasonable returns. In localities with monopolistic infrastructure ownership, access obligation rules should be structured in such a way as to incentivize NGA investments.

Leveling the Playing Field for Network Operators and Digital-Services Providers. A thriving digital economy in Europe depends on companies delivering the digital services that consumers, businesses, and governments demand. Establishing an environment that facilitates delivery of these services, which help create economic growth and jobs, should be a central goal of European policy. Many current regulations, however, have become outdated by technological development and have put this goal at risk. In particular, European telecom companies are put at a competitive disadvantage with respect to so-called over-the-top service providers (OTTs)—companies

Exhibit 2 | Five Measures to Close the Investment Gap and Meet the EU Digital Agenda Targets



Source: BCG analysis.
Note: Digital Agenda for Europe targets include 100 percent coverage with Internet connectivity greater than 30 megabits per second (Mbps) and 50 percent penetration with connectivity greater than 100 Mbps by 2020.

delivering digital content and services over existing networks—because of unbalanced regulation on a number of issues. These include much stricter privacy- and data-protection rules for telcos than for OTTs, as well as identification- and safety-related obligations for electronic-communication services with which network operators must comply but from which OTTs are exempt. The result is to undercut the incentive and ability of telcos to develop digital services in areas such as big data and cloud computing, among others.

This is a missed opportunity for all concerned. More-effective regulation would level the playing field for all players and seek to create an environment in Europe that encourages innovation and the kind of partnerships and deals among telcos and OTTs that more frequently take place in other markets—business arrangements that deliver new digital services that consumers and businesses want.

Modernizing Spectrum Policy to Accelerate the Progress of Mobile. While the overriding goal of government spectrum authorization is to further the rollout of advanced networks, some countries have also used auctions to maximize proceeds. Empirical data from past 3G auctions indicate that higher prices lead to slower subsequent network rollouts, partly because high-priced auctions leave operators with insufficient resources for subsequent investments. Governments often also follow auction rules that benefit new entrants (reserved spectrum and preferential prices, for example), with the resulting fragmentation of the market discouraging network investments from incumbent players.

In addition, the current approach of patchwork spectrum authorization across the EU hinders the ability of all participants to develop EU-wide network strategies. European spectrum-authorization rules need to be redefined to ensure efficient pricing and to abolish discrimination. To provide consistent implementation of these rules, leaders have to establish new competencies and enforcement mechanisms at the EU level.

Permitting Healthy Consolidation in Mobile. It may seem counterintuitive, but more mergers in telecommunications could deliver tangible benefits—including lower prices—to consumers. While competition leads to lower prices, economies of scale and density also mean that bigger companies have the ability to invest more in technological advancement and new infrastructure, which drives exponential decreases in costs per megabyte and reduces marginal prices for consumers. Currently, up to one-third of EU mobile operators are not sustainable businesses; they fail to earn their cost of capital. Allowing more of these companies to merge with other operators would result in bigger and healthier companies that can make these investments. Such mergers could also economically increase the rollout and coverage of LTE and other new technologies, which further benefit consumers.

We suggest a more dynamic and holistic approach to evaluating the impact of telecommunications mergers, including a quantitative model that complements the analysis of the short-term pricing impact by taking into account the value that additional investments have for consumers. We believe that such an approach would lead to more mergers, a healthier industry, and more benefits for consumers.

Harmonizing Rules and Procedures to Unlock Cross-Country Synergies. Moving to harmonized procedures and rules for consumer protection (contract termination, for example) and technical processes such as VAT submission would allow telecom operators with pan-European operations to realize synergies by standardizing IT processes across countries and implementing cross-border IT platforms.

Taken together, these five measures would allow for more fair and efficient competition. We estimate that they would also increase telecom-operator cash flows by a cumulative total of €105 billion to €165 billion by 2020. A significant portion of

these funds would be available for additional investment in next-generation networks. Along with the rollout cost savings expected from DG Connect initiatives—such as the pending "less digging = more broadband" regulation—this program would significantly close Europe's next-generation network-investment gap, fuel growth, add jobs, and bring the goal of a vibrant digital single market much closer to reality.

NOTE

1. Digital Agenda for Europe targets include 100 percent coverage with Internet connectivity greater than 30 megabits per second (Mbps) and 50 percent penetration with connectivity greater than 100 Mbps by 2020.

About the Authors

Wolfgang Bock is a senior partner and managing director in the Munich office of The Boston Consulting Group. You may contact him by e-mail at bock.wolfgang@bcg.com.

Björn Röber is a project leader in the firm's Düsseldorf office. You may contact him by e-mail at roeber.bjoern@bcg.com.

Peter Soos is a partner and managing director in BCG's Budapest office. You may contact him by e-mail at soos.peter@bcg.com.