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A "New Deal": Driving investment in Europe's telecoms infrastructure

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A “New Deal”: Driving investment in Europe’s telecoms infrastructure

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Skyrocketing demand for high-speed Internet services is necessitating another wave of infrastructure investment. The trick: securing funding in a context of low revenues and uncertain returns.

In the early 1990s, most European telecoms markets had one fixed-line incumbent operator that owned a network funded in the past by the government. Such operators enjoyed high margins for many years and this helped finance the universal service obligations in their respective countries. Governments were supportive, since developing these industries would bring sizeable long-term benefits to their economies.

The process to introduce competition to these single-network telecoms markets began in Europe in 1998. It obliged incumbents to let competitors provide services using their networks at an agreed wholesale price. The result: many European countries now have over a hundred fixed service providers sharing fixed networks with incumbents and up to six mobile network operators in each country sharing their capacity with multiple mobile virtual network operators and service providers.

At the outset, liberalization unleashed a wave of modernizing investments on the part of operators – both incumbents and new entrants – to expand network capacity as far as technology allowed at the time. The second decade of the 21st century calls for a new wave of investment in both fixed and mobile infrastructure to satisfy consumer and business demand and to capture the economic benefits that high-speed broadband technologies can deliver. Yet, the old funding model for financing infrastructure is no longer appropriate, since competition has driven down margins. Coupled with this, operators simply do not have the financial wherewithal to invest in new infrastructure.

Capturing the benefits of high-speed broadband requires investment in telecoms infrastructure

Compounding this: operators remain hesitant to invest since they cannot be certain that such investment will pay off until industry ground rules change. Stakeholders across Europe are debating how to reinvent the industry's revenue model to release the next wave of infrastructure investment so urgently needed by Europe's consumers and businesses alike. Speed is critical. Without more region-wide investment, Europe risks falling even farther behind other regions in terms of communications technology (Exhibit 1).

Infrastructure investment: The urgency and the costs

Around the world, data traffic is increasing exponentially – both on fixed and on mobile networks. More and more consumers and businesses demand constant high-quality Internet access coupled with higher traffic allowances and faster connection speeds to enjoy new Internet services such as OTT video wherever they are. Up to 2015, global demand is expected to grow by 34 percent for fixed and by 84 percent for mobile each year. In the United States – the world's leader in deploying 4G long-term evolution (LTE) mobile technology – mobile operators are currently experiencing year-on-year growth in demand exceeding 100 percent.

Telecoms has a large direct and indirect impact on the productivity and competitiveness of economies. The telecoms industry everywhere needs to make huge investments not only to cope with this new outlook but also to support the growth of the larger economies in which these networks operate. But Europe's need to invest is particularly large. Ac-

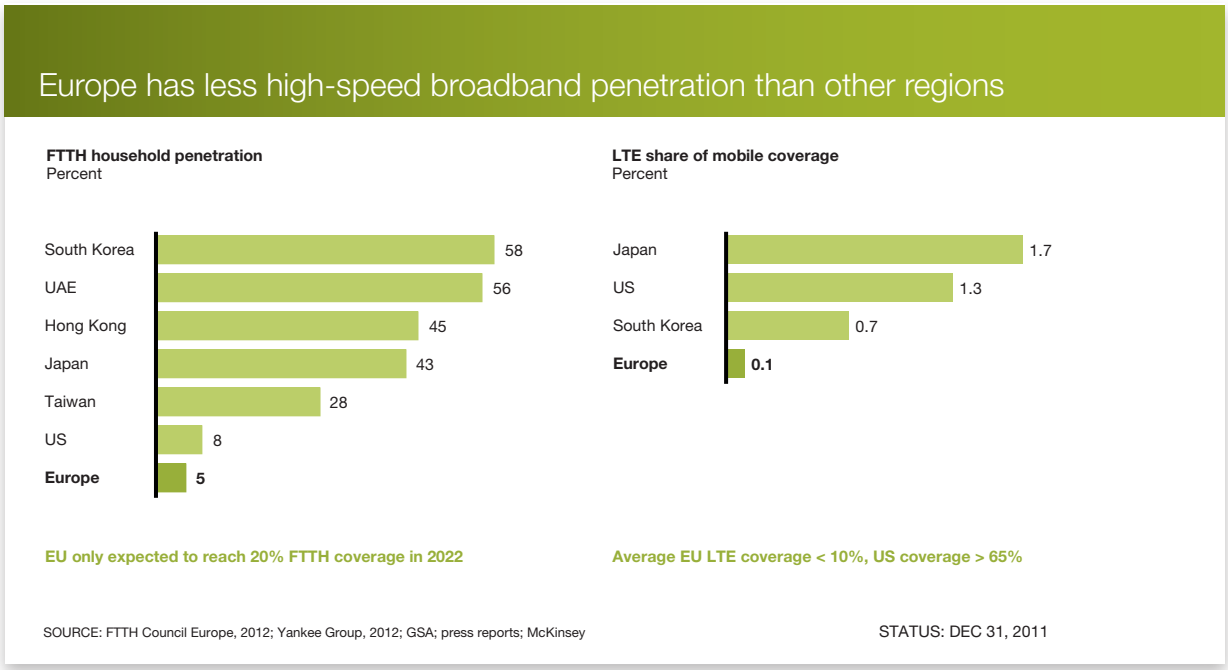


Exhibit 1

cording to McKinsey estimates, upgrading the fixed telecoms infrastructure in the EU-15 to achieve fiber-to-the-home (FTTH) coverage of around 50 percent of all households and vector-based VDSL – enabling speeds up to 100 Mbps over VDSL due to improved noise reduction – for the remainder will require around EUR 200 to 250 billion. Similarly, revamping Europe's mobile infrastructure to create a single mobile network using LTE technology and covering 95 percent of the EU-15 population will take another EUR 50 to 70 billion.

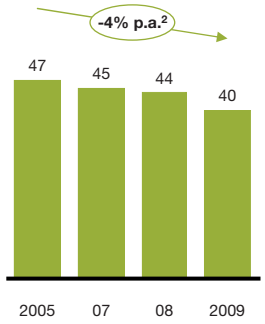
At a time when its investment needs are so high, Europe has seen a decline in capex of 4 percent p.a. from 2005 to 2009 – from EUR 47 billion to EUR 40 billion. This is equivalent to only two-thirds of US investment levels and less than half of what Australia invested during that same period (Exhibit 2). Other regions – thanks to their investments – are ahead in deploying next-generation high-speed fixed and mobile telecoms infrastructures.

Cable operators already cover more than 90 percent of homes in the United States using hybrid fiber coaxial technologies. These can be easily upgraded to offer 100 Mbps downlink and 50 Mbps uplink speeds at substantially lower capex per subscriber than the kind of vector-based VDSL or fiber infrastructure under discussion in Europe. The United States gained this advantage by not imposing telco wholesale and unbundling obligations on cable operators offering Internet access and then by relieving telecoms operators of unbundling obligations for fiber builds. This encouraged cable and telecoms operators to invest in fiber in order to compete for broadband access revenues. Verizon, for instance, has now deployed FTTH to most of its subscribers. Meanwhile, Asia's most developed markets (i.e., South Korea, Japan, Hong Kong, and Taiwan) have achieved average FTTH coverage exceeding 40 percent. This relatively high penetration rate is in part due to the large number of people living in high-rise apartments in densely populated Asian cities, making households easier to connect. It is also due to government support, which lowers the cost to network owners of deploying FTTH.

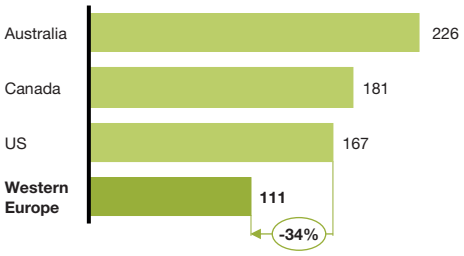
Both regions are also rapidly strengthening their mobile networks. In Q1 2012, around 64 percent of 4G LTE subscriptions worldwide were in North

Operators' investments are declining in Western Europe

Total annual capex in Western Europe[1]
EUR billions



Public telecoms investments per capita
Average 2005 - 09, EUR '000



1 EU-15, Norway, and Switzerland
2 Capex calculated over 5 years, 2006 not reported by OECD

SOURCE: OECD, 2007 - 11; McKinsey

Exhibit 2

America, 33 percent in Asia-Pacific countries, and only 3 percent in Europe. Internet traffic in the top traffic-generating regions of North America and Asia is 7,091 petabytes/month and 6,906 petabytes/month respectively, reflecting their modern infrastructure, compared with 4,818 petabytes/month in Europe.

Europe's telecoms sector's lack of impact is also evidenced by the fact that its telecoms industry is growing at a slower pace than the region's GDP for the first time since the 1990s. At the same time, the share of the sector's revenues in the EU-15's GDP went down from around 3 percent in 2005 to 2.7 percent today. This has taken its toll on the total number of full-time equivalents working in the industry, which has declined from 430,000 in 2000 to 320,000 in 2009 for a sample of nine European markets – Belgium, Denmark, Germany, Ireland, Greece, Luxembourg, Portugal, Finland, and Switzerland.

The government-operator partnership does not exist in the same way for this next wave of infrastructure. Neither side is able to kick in funds at the levels they once were. Government resources and priorities have shifted, and European operators no longer have the financial strength they once did.

Average revenues from fixed-line subscribers in Europe have dropped by 3 percent per year, representing an annual revenue loss of around EUR 12 billion for the fixed industry since 2008. In mobile, prices in Europe over the same period have decreased by around 8 percent a year. In the United States, in contrast, fixed-line prices increased by 3 percent a year, and mobile prices fell by 2 percent a year between 2008 and 2011 (Exhibit 3).

Lower revenues in recent years have eaten into European industry's profitability. From 2004 to 2011, EBITDA margins for the fixed market contracted by 4 percent each year, equating to EUR 5 to 7 billion in foregone profits every year. At present, the leading incumbent players in European markets still make about 75 percent of the region's telecoms investments. Revenue growth and profitability need to increase across the industry so telecoms operators can help close the investment gap. Bringing revenue growth back to 4 percent

Operator revenues per subscriber have fallen significantly in Europe

SOURCE: Pyramid Research, Q1 2012 (Western Europe and US); McKinsey

Exhibit 3

a year could generate an additional EUR 450 to 500 billion over the next ten years, according to McKinsey estimates. This would, in turn, generate an additional EUR 150 to 200 billion of profit at current EBITDA margins – enough to begin with the essential investments in fixed and mobile networks outlined above. Public funding might help to cover the rest of the investment shortfall.

Given the investment levels needed, however, boosting revenue is just one part of the equation. Enabling investment requires a "New Deal" – an industry framework in which governments prioritize investment-friendly regulation. Not only would this allow for pricing flexibility and promote consolidation among operators in both the fixed and mobile markets, operators could also commit to larger, longer-term investments in the industry. The EU and its member states have already taken several steps toward facilitating more infrastructure investment:

Supporting co-investment initiatives. Recently, several operators – in countries including Portugal, Switzerland, the Netherlands, and Spain – have started to consider initiatives in which two or more operators co-invest in deploying fiber networks. Partners agree to share the network but are not obligated to provide other operators with wholesale access to the new network for a given period of time (usually the first five years).

Allowing countries to make regulations appropriate to their geography. Portugal is a forerunner in taking regional differences into account. The government decided to grant a period of regulatory relief on wholesale access for areas of the country where competition exists.

Providing public funding. In Sweden, government support for extensive municipal high-speed networks has stimulated the provision of access to next-generation fixed networks in rural areas. At the same time, mobile network sharing agreements have lowered the amount of capital individual operators need to build up new LTE infrastructure. At the regional level, the European Commission also recently created the Connecting Europe Facility to help fund the rollout of next-generation networks and pan-European digital services. It plans to lend out EUR 9.2 billion between 2014 and 2020.

Maintaining the current wholesale price for access to "unbundled" copper connections. The European Commission recently released guidelines indicating that wholesale prices for access to unbundled copper connections should stay at their current levels so network operators can earn enough to fund the rollout of next-generation networks.

Modernizing spectrum policy. The European Commission also launched its Radio Spectrum Policy Program (RSPP). This specifies general principles for managing spectrum in the European Union and defines key policy objectives. It has started to foster spectrum trading among operators to make more efficient use of the spectrum available.

Additional, complementary ideas

As industry stakeholders shape the region-wide policy framework that Europe needs to underpin a rollout of next-generation fixed and mobile networks, McKinsey offers four further ideas that relate specifically to market structure, pricing, wholesale access regulation, and spectrum.

Allow fewer fixed and mobile operators. Europe's fixed market is characterized by a large number of small players competing on price with a few much larger players that make little or no investment. Consumers in Europe might, however, be better served by a fixed industry with fewer, stronger players able to make larger investments but sufficient in number to ensure competition remains vibrant. Europe's mobile market also needs considerably fewer operators. The EU-15 has 56 mobile operators, while the United States has only four to cover a similar size of territory and population. Authorities should consider allowing European operators to consolidate so they can operate networks and use resources such as spectrum more efficiently.

Allow more pricing flexibility. Operators need the flexibility to adjust prices to customers depending on the bandwidth and volume of data traffic they require. With that flexibility, operators could consider charging more to the customers who are raising operating costs by demanding higher speeds, more services, and greater capacity over the Internet.

Restrict wholesale access regulation to a few basic services. Along with allowing operators "regulatory holidays" for a reasonable period on investments in new-generation networks, this would improve an operator's chances of recouping investments.

Give operators more spectrum. More spectrum in which to operate could also contribute to a positive investment outcome. Examples include allocating the second wave of the digital dividend spectrum (700 Mz) to wireless broadband for joint mobile and fixed use; making it possible for operators to acquire enough low and high frequency to give them the coverage and capacity they need to meet both exploding data demand and the "need for speed"; and ensuring that high-speed backhaul from cell sites is available by allocating appropriate frequencies for backhaul. All of these can up the investment value proposition.

Steps toward a "New Deal" regulatory framework have been made, but further elements are needed

Combining the ideas mentioned above with measures currently implemented by the European Commission could open the doors for the industry to invest and revitalize the European economy.

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The last wave of telecoms infrastructure investment occurred under circumstances remarkably different from the situation operators and regulators face today. Early in the millennium, liberalization spurred investment – and both governments and operators were in a position to invest heavily. In an age of competitive pressure and lower revenues, stakeholders will need to enter into a new pact that improves profitability, makes investment feasible, and increases the chances of attractive returns.

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