**SUMMARY**

The telecommunications sector is crucial to the entire economy of the EU. Since 2009, despite constant growth in demand for data services, its revenues have been declining. Despite having an early lead, European telecoms lag behind international competition with regards to investment and deployment of modern infrastructure. Even though legal obstacles to liberalisation were removed in 1998, the market remains fragmented along national borders in terms of its structure, consumer pricing, network access fees and radio spectrum allocation. The high cost of "roaming" between national markets is just one outcome of this fragmentation.

In September 2013, the European Commission proposed the Connected Continent package which aims to remove the obstacles to a genuine single market for telecoms and incentivise the sector to invest in new technologies and services. The proposal seeks to reduce administrative burdens related to gaining authorisation to operate, coordinate radio-spectrum assignment at EU level, and increase network capacity. It will also lead to the elimination of premiums on international call and on incoming calls when roaming.

The proposal provoked mixed reactions from stakeholders, who supported only some of its elements and criticised the lack of official consultation process and the rushed attempt to have it adopted in the current legislature.

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**Telecommunications sector in EU**

**Key trends and figures**

The telecommunications sector accounted for 2.8% of EU GDP in 2010. Since 2009 its revenues have been decreasing (by 10% in Western Europe alone), which may indicate structural rather than cyclical (due to the economic downturn) changes. There are three main areas, with contrasting dynamics:

**Figure 1 - Telecoms revenues by segment (in %)**

Data revenue includes Internet access, business and mobile data services. Data source: European Commission.

In absolute terms, revenue for fixed and mobile voice telephony is declining slightly while data revenue is growing (particularly for mobile data services). The decline of revenue from voice telephony may be explained by shrinking demand for fixed voice telephone services. In case of mobile voice telephony the main factors are a reduction in tariffs and a decrease in metered traffic due to consumers switching to alternative applications such as Voice over Internet Protocol (e.g. Skype).
**Sectoral distress despite rise in demand**

Estimates show mobile data traffic in Europe growing more than tenfold from 2010 to 2015. But despite increasing demand, revenue from data services increased by only 8% between 2010 and 2012, while prices for mobile data in the EU remained among the cheapest in the world. Furthermore, market capitalisation has decreased by 22% since 2011, and several large operators are struggling with high debt levels.

**International comparison and new technologies**

Liberalisation of telecoms market over the past 25 years has been regarded as relatively successful in stimulating the market and lowering prices. In mobile telephony, the EU had an early lead in international competition, due to mandating the GSM operating standard and awarding limited national licences to enable a competitive but orderly market. However, recently the EU sector has been perceived as stagnating relative to other economies. European operators lag behind international competitors in terms of investment (e.g. since 2002 EU wireless investment is half the rate of the US and Canada). Europe's share of global telecoms markets is shrinking (from 31% in 2005 to 25% in 2011).

Europe has been a leader in 3G penetration. According to the Commission, however, 4G/LTE networks (allowing at least four to five times faster data download than 3G) are available for only 25% of EU users (mostly living in urban areas). In the US over 90% of the population has 4G access. Furthermore, Europe has just 6% of the world's 4G mobile subscriptions, while the networks in the US, South Korea and Japan jointly have 88%. However, telecoms specialists claim that Europe has the world's largest quantity of operational and planned 4G/LTE networks.

In terms of mobile traffic, it is estimated that Asia-Pacific and North America will account for almost two-thirds of global mobile traffic in 2017, while the EU market will take under one-fifth. Fixed ultra-speed fibre internet connections are lagging behind as well, with only 5% of EU households connected by fibre, as compared to 58% in Korea and 43% in Japan (although 53% of household are covered by the fast Next Generation Access Networks). It is worth noting that for both, the 4G/LTE and fast broadband coverage, big differences across the EU exist and rural areas remain the biggest challenge.

**Fragmentation of the market**

**Consumer pricing**

European mobile users are charged very different prices for the same services: a minute of mobile phone conversation costs almost eight times more in Netherlands than in Lithuania (2011). International mobile calls vary from €0.35 to €1.19 per minute. Broadband prices may also vary quite considerably.

**Figure 2 - Median price of a month of fixed broadband access ≥ 8Mbps - Internet access only - 2013**

Data source: European Commission

**Structure**

The telecoms market in the EU remains fragmented along national borders. The US and China have markets served by six and
three major operators respectively, acting within a single framework. The EU has about 40 major operators and 28 regulatory frameworks (in total the market includes over 1000 fixed operators and several hundred mobile operators4). Notably, when the Commission analysed the financial reports of EU telecoms companies it found that they still largely focus on their home markets. None of the large operators is present in all Member States.

**Fees and spectrum allocation**

Telecoms operators face significant differences when expanding their business abroad. Operating licence fees vary from €0 to €3 000, while administration fees for holding a licence vary from €5 000 to €15 000. Network owners may charge their competitors leasing costs for access (wholesale copper access prices), which range from €4 to €14 per month per client. The prices paid for access to radio spectrum can vary up to 50 times among the Member States. Furthermore, companies interested in purchasing internet connectivity or access to frequencies as a package for several Member States cannot do so because there is no harmonised competitive single market for these products.

**European framework**

Current EU telecoms rules are the result of 25 years5 of reforms and liberalisation of the sector. The legislation was introduced in a series of packages which aimed at unbundling networks, increasing competition and consumer choice, capping the cost of mobile roaming, guaranteeing basic user rights and improving the functioning of the market.

The Commission noted that implementing the framework resulted in the prices of telecoms services decreasing by 30% over the past decade. The current regulatory framework covers fixed and wireless telecoms and internet, as well as broadcasting and transmission services. The legislation comprises five Directives and two Regulations6 which concern every area of the industry's activity (e.g. authorisation and licensing procedures, availability and access to networks, and user privacy)7.

**Connected Continent**

**General context**

Economists believe that solid and extensive telecommunications services help to increase overall economic efficiency and contribute to increasing the competitiveness of a country. The OECD considers the telecoms sector critical in producing inputs to the production and delivery of goods and other services, and as such to have an impact on the entire economy. The importance of the telecoms sector has also been recognised in the Digital Agenda, a flagship initiative of the EU's Europe 2020 growth strategy, which seeks to promote investment, enhance competition and reduce the costs of rolling out high-speed networks. According to the Commission, the entire economy increasingly

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**Spectrum allocation and investing in infrastructure**

Radio spectrum used for high-speed wireless broadband is allocated at national level. The Commission and some experts consider that national level problems (mainly technical and bureaucratic delays) have led to procedural and licensing delays in spectrum allocation (only 65% of harmonised spectrum has been allocated). Furthermore, spectrum rights in the EU are relatively expensive (almost four times more costly than in the US). Acquiring the right to access at auction may leave an operator without sufficient financial means to invest rapidly in new technologies and networks (such as 4G). Furthermore, the revenue from spectrum auctions is not reinvested by governments in the sector or its infrastructure. The delays in releasing spectrum and the high purchase costs contribute to slow deployment of new infrastructure in Europe. Insufficient infrastructure has a negative impact on the number of users, and without users the companies find it difficult to monetise their investments in infrastructure. Some consider this may have negative consequences in the long run, as for future technologies investors will be less likely to repeat the significant investment required now for 4G if it does not bring commercial gains.
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Single telecoms market in EU

relies on information and communications technologies (ICT), which are crucial in sectors as diverse as financial services, transport, healthcare, energy and public services. Both small and large businesses need modern services and infrastructure, and depend on connectivity provided by telecoms. However, the Commission considers that "the telecoms sector still bears the legacy of former national monopolies, largely operating on national lines" and that the market is not genuinely operating as a single one. It also estimates that completing the internal market for electronic communications could result in a growth in EU GDP by up to €110 billion a year.

Commission proposal

On 11 September 2013, the Commission proposed a legislative package for a "Connected Continent: Building a Telecoms Single Market". The proposed regulation builds on the existing regulatory framework and aims to incentivise the sector to invest in new technologies, take up new business models, and remove the obstacles to a single telecoms market. In particular, it provides for:

- a single authorisation for providers of electronic communications valid across the whole EU instead of the current system of separate national authorisations
- coordination of spectrum assignment for mobile/wireless services to facilitate operating in several countries at once, particularly by aligning timing and authorisation conditions
- promoting the sharing of infrastructure and spectrum (e.g. by compensation for timely release of spectrum) as well as spectrum trading (deploying unused spectrum for other operators)
- simplifying conditions for deployment and sharing of Wi-Fi and small cells (low-powered radio access) to enhance competition and reduce network congestion
- providing common criteria for connectivity products, with assured service quality negotiated between operators
- standardisation of products needed for access to existing fixed internet infrastructure, to facilitate market entry and expansion across the EU
- avoiding over or under-regulation of national (sub)markets by applying the Commission's uniform methodology when determining whether a market should be regulated
- abolishing roaming charges for incoming calls from 1 July 2014. Furthermore, operators who do not voluntarily and gradually introduce roaming services at domestic price levels by July 2016 risk "decoupling" from customers, who will be able to use a separate roaming provider offering cheaper rates when abroad (without buying a new SIM card)
- capping the maximum charge for intra-EU fixed-line call as equivalent to a domestic long-distance call. The Commission expects this will reduce operators' revenue by around 0.5% but will be compensated by a higher volume in the medium term
- harmonising principles for switching operator procedures (e.g. governing automatic contract terminations) which aim to facilitate the process and consequently increase competition and promote market entry.

Together with the proposed regulation, the Commission adopted a Recommendation on consistent non-discrimination obligations and costing methodologies. It aims to promote investment and innovation in new high-speed networks while maintaining effective competition by:

- establishing a level playing field which ensures that new market entrants have equal access to incumbent operators' networks, mainly by applying stricter non-discrimination rules
- harmonising and stabilising the prices that incumbent operators may charge for giving new entrants access to their
existing copper networks

- allowing investors in Next Generation Access Networks to set non-regulated access prices so that their return on investment is secured.

The Commission anticipates that some of these measures (e.g. facilitated authorisation, spectrum sharing and trading, shared use of infrastructure) will make deploying and renovating existing wireless networks with new technologies (such as 4G) easier and cheaper.

**Stakeholder views**

Some Member States appear to have reservations about the proposal’s complexity and the short time left if it is to be adopted in this legislature, as well as about the fact that it had not been preceded by the usual formal consultation process. Observers claim that the proposal has been watered down, possibly to facilitate rapid adoption.

The Body of European Regulators for Electronic Communications is concerned about the shift of power from domestic regulators to the Commission, and warns that the single authorisation process may be operationally more costly and burdensome than the current system. It also argues that coordinating spectrum bidding gives larger operators an advantage given the capital and resources needed. The European Telecommunications Network Operators’ Association welcomes the harmonisation of spectrum auctions and releases and the Recommendation on costing, but argues that allowing more market restructuring (mergers) and changing to a fully harmonised and lighter pan-EU framework are missing elements.

The GSM Association claims that the proposal was rushed and argues that it lacks incentives for investment and innovation, does not address the necessary consolidation of mobile markets and does not reduce the overall regulatory burden. Large telecoms operators say that roaming and price caps would deprive them of cash needed to modernise networks, while simply allowing consolidation would return the sector to growth. Digital Europe supports a single EU authorisation procedure, coordinated management of radio spectrum and provision of favourable conditions for the deployment of small cells. Cable Europe welcomes the proposal but calls for lighter regulation which complements, not overturns the current framework. Fibre to the Home Council Europe criticised the proposal for favouring copper upgrades that will not deliver the necessary capacity over future-proof fibre networks in the long term.

Ovum telecom analysts argue that spectrum coordination would require leaders in spectrum release to align themselves with laggards and as such may be counter-productive and slow growth. BusinessEurope doubts whether the proposal will fully achieve its aims, and stresses that private investment in infrastructure must be incentivised and protected. The Bruegel think-tank claims that the proposal is not bold enough since it does not create a single EU regulator or EU-level allocation of spectrum. Furthermore, it does not force operators participating in multilateral roaming agreements to give alternative operators access to their networks, which makes entering roaming markets risky and may lead to abuses of competition.

**European Parliament**

In a September 2013 resolution MEPs underlined that the telecoms market is still
fragmented into national markets and that the high prices of roaming increase the cost of mobility within the EU. MEPs also called on Member States to take the necessary steps to avoid further spectrum release delays. In October 2013 the EP stated that only a competitive EU market in high-speed broadband services can stimulate innovation, economic growth and job creation. MEPs called for a comprehensive review of the regulatory framework for electronic communications and supported pan-European spectrum auctioning. Furthermore, the EP considered that the Connected Continent provisions may play an important role with a view to creating a single telecoms market.

Endnotes

1 The Commission considers that downward pressure on telecoms pricing is caused by numerous factors including competition and decreasing demand in the countries most heavily affected by the financial and economic crisis. Consultants add the growth of multi-SIM users (owners of a second SIM card on a lower tariff) and the fact that many new users gain access at lower price points.

2 Similar data given by the analysts states that while the EU has 6% of 4G mobile subscriptions, the US has 47%, South Korea 26% and Japan 17%.

3 For example, in Malta, the Netherlands, Belgium and Luxembourg, Next Generation Access broadband coverage exceeded 90% at the end of 2012 while in France, Greece, Croatia and Italy less than 25% had access. Finland and Sweden have an LTE coverage of at least 90% while seven countries had no access at all.

4 Four main mobile operators in Europe hold an EU market share of 60%, however.

5 Liberalisation began in 1988 with opening up the telecommunications terminals markets to competition, followed in 1990 by other telecoms services (but not voice telephony). With competition opening up different segments of the market such as satellite communications, broadcasting services, cable television networks, mobile communications and ultimately voice telephony, full liberalisation was achieved in 1998. Further legislation included the 2000 Unbundling Regulation (facilitating entry of new operators) and the 2002 Telecoms package (to make the electronic communications sector more competitive). The Commission also adopted a Recommendation on relevant markets (identifying markets where telecoms specific regulation should take place), which was revised in 2007 to include additional markets (e.g. wholesale broadband access). In 2009 EU Telecoms Reform was introduced focusing on stronger consumer rights, an open Internet, high-speed connections for all citizens and further building of the EU single market for telecoms.

6 These are the Framework Directive, the Access Directive, the Authorisation Directive, the Universal Service Directive, the Privacy and Electronic Communications Directive and Regulations on the Body of European Regulators for Electronic Communications and Roaming on public mobile networks.

7 Content is however not covered by them and regulated by separate audiovisual media services rules.

8 See World Economic Forum: The Global Competitiveness Report 2013-14, pp. 6-7


10 The regulation also contains proposals for the protection of Open Internet (such as ensuring net neutrality) and consumer protection (such as "plain language" contracts with more comparable information) which are not included in the scope of this briefing.

11 Such as Virtual Unbundled Local Access, bitstream access, and Ethernet leased lines.

12 Namely the "3 criteria test" used for determining a need for regulatory intervention. They include: the presence of high and non-transitory entry barriers, market structure which does not tend towards competition within the relevant time horizon and market failures which cannot be adequately addressed by competition law.