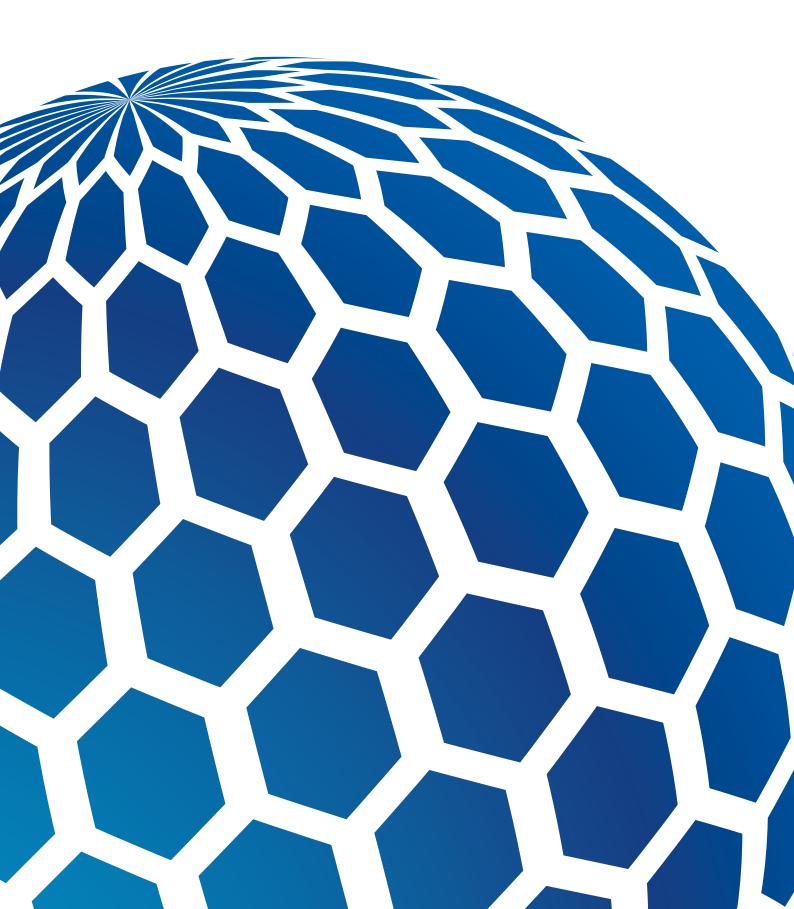


Mobile Economy Europe 2013



Executive Summary

The European mobile industry is one of the most successful in the world and has a strong track record in innovation and developing new services. Competition and price cuts have increased the affordability of mobile services for consumers, leading to penetration rates in terms of both unique subscribers¹ and smartphones that are amongst the highest in the world. Mobile plays a pivotal role in the European economy, both as an industry in its own right and as an enabling platform for an increasing range of adjacent industries and services.

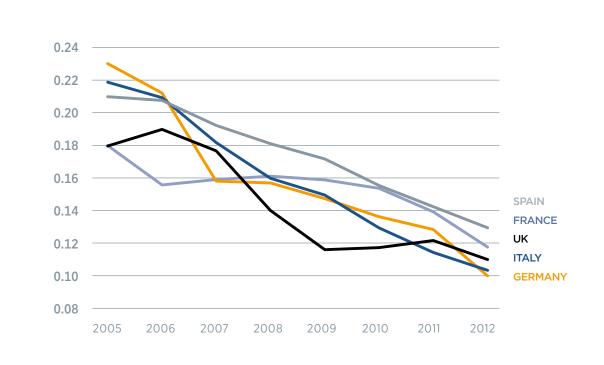
However, since the GSMA's last review² of the industry, market conditions have continued to worsen across the European mobile market with market saturation and more intense competition exacerbating pressure on revenues and margins. This reflects several factors including intense price competition between operators; regulatory action; the impact of new online messaging applications; and a weak economic backdrop. The strong growth in mobile data volumes and the new revenue opportunities around higher data speeds, new forms of content and advanced communication services have proved insufficient to offset the declines in more traditional revenues. Competitive pressures in Europe remain intense and have driven significant price declines for voice and data services, with both voice and mobile broadband pricing in Europe now materially cheaper than the US. These factors have in turn pressured industry profitability, with EBITDA margins down by seven percentage points over the last four years.

See Appendix 2 for definitions
http://www.gsma.com/gsmaeurope/european-mobile-observatory-2011

1

The financial pressures on European operators, (as well as delays in allocating the Digital Dividend spectrum in the 800MHz band) have contributed to falling investment levels in European mobile, with capex declining in recent years. For example, the higher capex levels in the US (and faster LTE deployments) means that US data speeds are now on average faster than those in Europe, and the gap is expected to grow. Despite seeing the world's first LTE deployments, at the end of 2012 LTE accounted for well under 1% of total connections in Europe, compared to a figure of 11% in the US and 28% in South Korea.

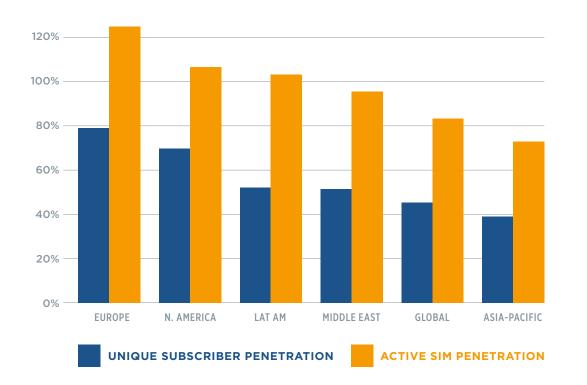
The European mobile industry is now beginning to lag its peers in other developed regions in a number of key areas. Mobile networks have both direct and indirect effects on the productivity and competitiveness of economies, with the result that both consumers and the economic outlook in Europe will continue to suffer unless steps are taken to address some of the challenges facing the industry.



EFFECTIVE PRICE PER MINUTE (€)

Source: GSMA intelligence

Despite the current challenges, the mobile industry remains a key pillar of the European economy. This is evident both through the direct impact of the mobile industry ecosystem, and through the indirect role that mobile technologies are playing in adjacent industry sectors. The growth and the benefits of the mobile industry to date have been phenomenal. The mobile ecosystem (both directly and indirectly) generated around 2.2% of European GDP in 2012, while also directly contributing 390 thousand jobs to the European economy (see the chapter "Connected Europe" for more details). The industry contributed €53B to public funding last year, while receipts from spectrum auctions alone in the last two years have totalled over €17B. There are also a range of tangible social benefits across a range of other parameters, including in the areas of environment, health, and education.



UNIQUE SUBSCRIBERS & ACTIVE SIM PENETRATION

Source: GSMA Intelligence



The mobile industry has the potential to deliver even greater benefits and play a leading role in helping the EU to meet the growth, jobs, sustainability and innovation objectives set out in the EU 2020 strategy. The mobile industry in Europe has evolved beyond the provision of basic voice and data services to offer high speed broadband internet access and data connectivity. We are now seeing a new "third" wave of connectivity, beyond tablets and laptops; to connected cars and buildings (amongst others); with the prospect of connecting almost anything and anyone (what the GSMA refer to as the "Connected Life").

Unleashing the potential of the third wave becomes even more critical at a time when Europe is struggling with high unemployment and low growth. Machina estimate the total Connected Life market revenue opportunity at over €234B in Europe by 2020³, which includes service improvements and innovative new services, as well as the scope to make material cost savings. mHealth services alone have potential to deliver cost savings in healthcare delivery of up to €99B, whilst adding €93B to European GDP by 2017, as well as addressing issues around quality of life and mortality rates for millions of people.

There is also the scope to unleash much greater socio economic impact via mobile technology in the coming years, if issues around spectrum availability and delays in accessing to the Digital Dividend spectrum are addressed. This spectrum could generate up to €119B of incremental GDP over the period to 2020, producing €55B of tax revenues and supporting up to 156,000 new jobs across the region. However, these benefits will be substantially delayed if a number of countries delay releasing this spectrum until 2017, which could reduce the GDP benefit by €16B and the new jobs by 67k.

 $[\]label{eq:connected_life_spin} \textbf{3}. \quad http://connectedlife.gsma.com/the-connected-life-a-usd4-5-trillion-global-impact-in-2020/sector_life-a-usd4-5-trillion-global-impact$

EU institutions and the mobile industry have a common agenda: namely building a Connected Europe that can help meet the region's growth, employment, innovation and sustainability challenges. The EU can accelerate the development of a Connected Europe and maximise the economic and social contribution of the mobile industry through a policy and regulatory approach that:

- 1. Encourages investment in mobile connectivity;
- 2. Enables innovation in new content and services;
- 3. Builds consumer confidence in mobile services and applications.

There are a number of critical areas of regulatory and public policy that need to be addressed in order to create the right environment to attract and nurture investment in mobile connectivity. Investment in connectivity is dependent on the timely allocation of sufficient spectrum to allow operators to meet the expected growth in data traffic, both in the short and medium term. The EU has indicated that a total of 1200MHz of spectrum should be identified to meet this anticipated future demand, but with only an average of around 600MHz released at present, Europe is falling behind. As well as addressing issues around spectrum availability and harmonisation, Europe needs to refocus its policies towards facilitating investment and innovation rather than the management of end user prices. European policy should allow the mobile industry to realise the economies of scale offered by a single telecoms market, in order to reduce operating costs and so help operators fund investment in network deployments and new

services. Other issues to be addressed to encourage investment include those around improving the approval process for new base stations (which result in lengthy delays in network deployments), as well as eliminating sector specific taxes that can hinder investment by the mobile industry.

There are a number of policy asks in order to enable the mobile ecosystem to deliver ongoing innovation around new content and services. These include the need to allow operators to engage in service- and customer-orientated network management: as mobile operators already have to prioritise both between types of traffic and types of user in order to ensure the levels of service that consumers expect. Looking forward, in order to be able to maintain these service levels mobile operators need to be free to innovate and create pricing models that are better aligned with the services that the consumer is both wanting to use and willing to pay for, as in any business.

Appropriate and flexible regulation is required in a number of new service areas to allow these services to flourish. In the case of mIdentity, and as trust and reputation become more important assets within the economy, policy makers need to work together with the industry to encourage interoperability and innovation, while ensuring consistency between the different legal and regulatory instruments that affect digital identity management. In the developing field of mHealth there is no need for new medical device legislation, but there is a need to clarify existing regulation as it applies to mobile health solutions. In the case of mPayments, market forces will converge over time on the most compelling solutions, so that a regulatory push for standardisation at this stage of their development could stifle innovation.

Finally, there a number of key issues under the topic of building consumer confidence. Consumers should be provided with meaningful information by operators and service providers as the best way to assist consumers in making choices, while consistent rules should apply for functionally equivalent services. On the topic of data protection, policy makers need to ensure that consumers enjoy consistent privacy experiences across the mobile ecosystem, irrespective of the technologies, infrastructure, business models and data flows involved. The barriers to compromising mobile technologies, particularly UMTS and LTE, are already extremely high. The Commission should foster enhanced cooperation at the international level to improve the security of new networks, while all the actors in the supply chain should be subject to the same obligations to adopt risk management procedures and to report security breaches (at present only e-communications service provides are subject to these).

Private investment, enterprise and innovation is building a Connected Europe, but the right policy framework can support this activity and help harness the benefits created by third wave of mobile and to realise the full potential of connected living. Maximising a Connected Europe's contribution to EU2020 therefore depends on a number of key partnerships. These include the partnership between the mobile industry itself and adjacent industries that use mobile as a platform to offer content and services; and between the mobile industry and government (at both a national and European level), to ensure that a supportive policy approach helps address the key challenges facing the industry. Without continued investment and growth in mobile networks, facilitated by a supportive regulatory environment, the full range of socioeconomic benefits highlighted above will not be fully realised.

As European Commission Vice President Neelie Kroes stated "there is tough global competition. Other parts of the world are racing ahead, and giving themselves the wireless advantage. The right policy decisions matter to our future. Mobile traffic is predicted to grow at over 60% per year, and our networks are straining. Not providing that capacity means higher prices and less choice for users, less revenue opportunities for businesses, and a European economy that stutters on the world stage"⁴.

EU institutions and the mobile industry have a common agenda: namely building a Connected Europe that can help meet the region's growth, employment, innovation and sustainability challenges.

This report focuses on markets within 27* Member States of the European Union (EU) and does not focus explicitly on Croatia which joined the European Union in July 2013.



INDUSTRY AT A CROSSROADS

Unique Subscribers







The phenomenon of multiple-SIM ownership continues to distort penetration rates

Unique Active SIM Penetration

EUROPE **125%**

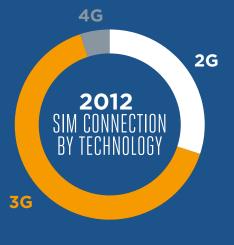
GLOBAL 82%

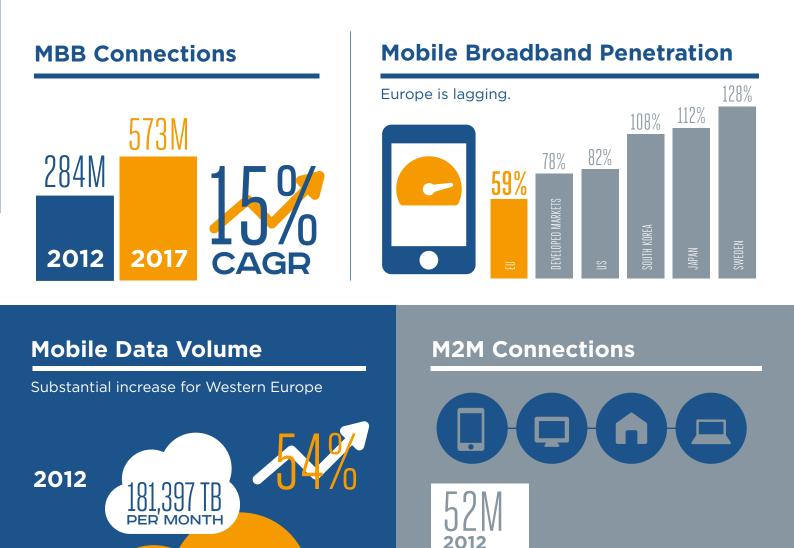
With multiple SIM ownership common in Europe as in other regions, the number of real subscribers is significantly lower than the number of SIM connections. Multi SIM ownership in Europe and other developed markets tends to reflect the trend to multi-device ownership.

Smartphone Penetration

Smartphone penetration in Europe is already amongst the highest in the world.







Industry revenue trends

1,384,072

DE

MON

2017





2017

n

Areas of concern include: Competition, Economic Recession Regulation Overload, Fragmentation



For the full report on Mobile Economy: Europe 2013 please visit the GSMA website at www.gsma.com/mobileeconomyeurope

