



ERICSSON



EUROPE

ERICSSON MOBILITY REPORT APPENDIX

JUNE 2015

MARKET OVERVIEW

Key figures: Europe

	2014	2020	CAGR 2014–2020
Mobile subscriptions (million)	1,125	1,270	2%
Smartphone subscriptions (million)	450	830	10%
Data traffic per active smartphone (GB/month)	1.2	6.5	30%
Total mobile traffic (PB/month)	750	6,250	40%

Europe continues to have a mixed level of maturity in its ICT (Information and Communications Technology) industry, but the difference between advanced and developing markets is getting smaller. Digital activities surround and support people throughout the day, making life more comfortable and safe, while bringing people closer to each other. Users understand the advantages of high quality connectivity and how big a role technology plays in their lives. More than one-third of Europeans state that it is very important for them to be able to access the internet wherever they are.¹

Household penetration of connected devices in Europe is growing significantly

According to Ericsson ConsumerLab research from 2014, household smartphone penetration has almost doubled across European countries in the last two years. In developing markets in Eastern Europe, household

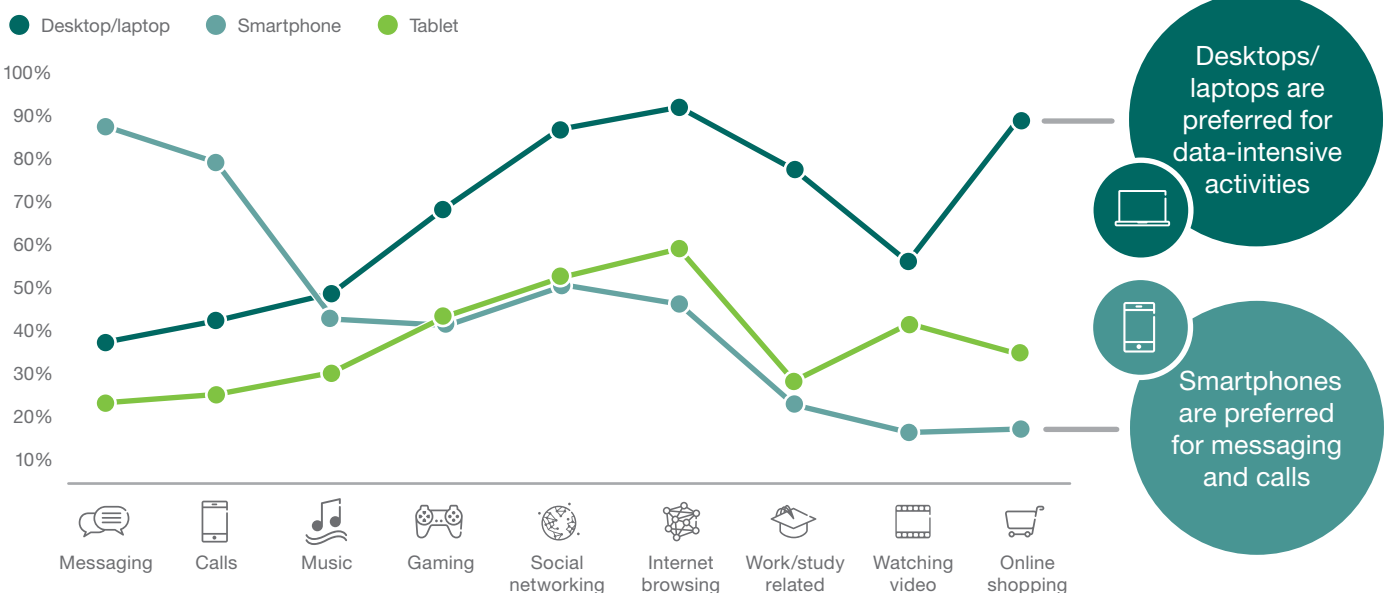
smartphone penetration has tripled. In highly developed markets, like the UK or Sweden, smartphones have already surpassed desktop computers in terms of household penetration. In other European countries such as Italy, 2 out of 3 households in 2014 had a smartphone, compared to 1 in 3 in 2012.

Tablets are mainly used in parallel with smartphones. The household penetration of tablets in Europe has increased significantly, from only 18 percent in 2012 to almost 50 percent in 2014.

Device type determines activity usage

With the increasing availability of multiple connected devices, it becomes apparent that the usage profile of activities performed via apps or telecom services is significantly affected by the device type. The figure below shows that the smartphone is the preferred device for activities where mobility is the key requirement, such as messaging and voice calls.

Device usage preferences



Source: Ericsson ConsumerLab (2014)
 Base: Internet users of respective services, eight countries in Europe

¹ Ericsson ConsumerLab (2014)

Smartphones and tablets are increasingly being used for gaming and social networking among European internet users. For instance in Germany, 42 percent of internet users play games on these devices. For more stationary devices such as desktop computers and laptops, the most common activity is browsing the internet, which 93 percent of internet users in Europe do. Online shopping and social networking are the second and third most common activities for these devices, and are performed by 89 percent and 87 percent of consumers, respectively.

Satisfaction of consumers while accessing services over the internet

	Outdoor		Indoor	
	Low data-intensive services	High data-intensive services	Low data-intensive services	High data-intensive services
AUSTRIA	12%	7%	43%	29%
DENMARK	13%	8%	41%	30%
GERMANY	11%	10%	41%	36%
ITALY	11%	10%	32%	24%
RUSSIA	16%	11%	50%	38%
SWEDEN	13%	9%	44%	36%
UK	16%	13%	47%	42%
UKRAINE	14%	9%	49%	29%

Note: Any device: Both Wi-Fi and cellular connections included.



Source: Ericsson ConsumerLab (2014)
Base: Users of respective services on any device, eight countries in Europe

Connectivity experience in Europe depends on location

Ericsson ConsumerLab research from 2014 also highlights differences in the user experience between indoor and outdoor connectivity, which are a critical barrier to further drive device usage. Analyzing the experience of both Wi-Fi and cellular connections, there is greater satisfaction with indoor connectivity, be it in the office, at home or at school, as shown in the figure on the left. The levels of indoor satisfaction are supported by the widespread use of Wi-Fi in the home. However, the satisfaction level with indoor connectivity dips when consumers perform data-intensive tasks, especially for activities such as viewing videos and gaming. This indicates that consumers are also unhappy with their indoor coverage.

Consumers' unhappiness with their connectivity when indoors is largely because this is where services are used more frequently today. Therefore, the value of indoor coverage is greater. This is reflected in the fact that 47 percent of consumers are willing to pay for a better experience indoors, but only 20 percent while commuting and 18 percent in other locations.



MOBILE SUBSCRIPTIONS

LTE subscriptions are spreading throughout Europe

In Europe, every country has WCDMA/HSPA networks and nearly all countries have now launched LTE. Western Europe has the largest number of LTE subscriptions, whereas Eastern Europe lags behind due to spectrum being awarded later than in other countries.

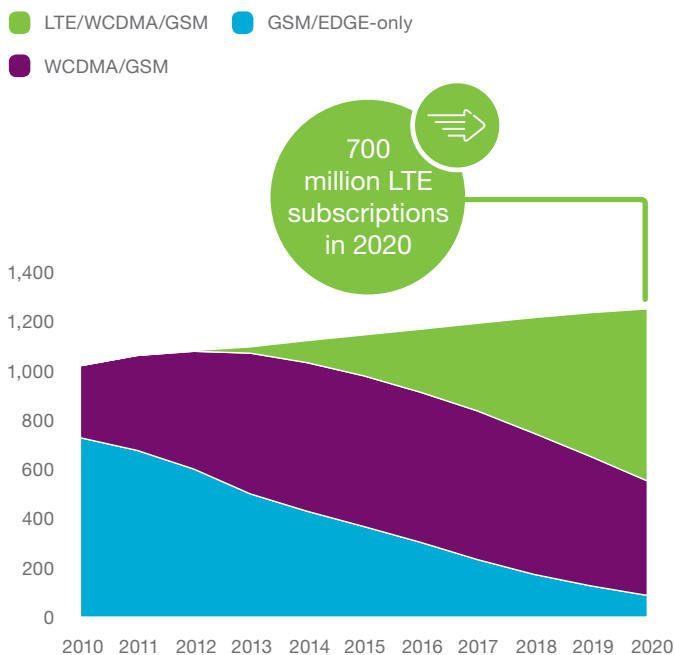
Sweden and Norway launched LTE in 2009, becoming the first in the world to do so. The number of LTE subscriptions in Europe is growing rapidly and tripled during 2014, when it reached 8 percent of mobile subscriptions. The number of LTE subscriptions will be roughly 700 million by the end of 2020, which will equate to around 55 percent of all mobile subscriptions. This is 85 percent of all subscriptions in Western Europe and 30 percent of all subscriptions in Central and Eastern Europe.

Smartphone penetration in Europe is already among the highest in the world

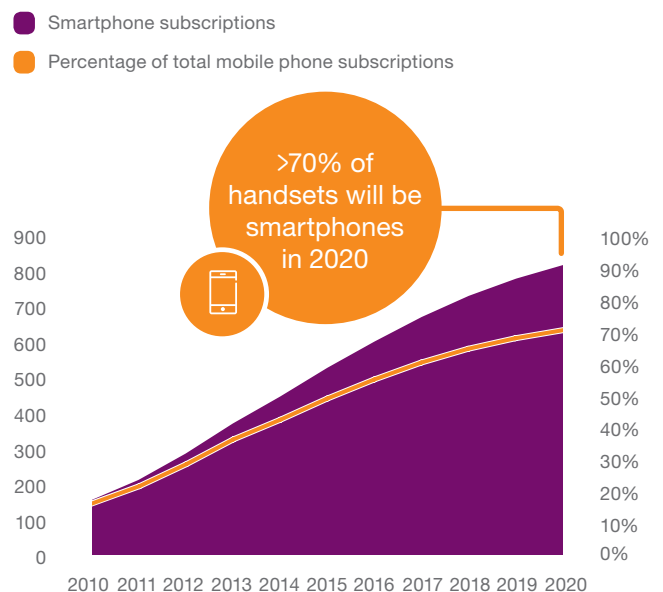
The number of smartphone subscriptions was around 450 million in 2014, accounting for almost 45 percent of total handsets. By the end of 2020, the number of smartphones in Europe will have almost doubled, reaching 830 million, meaning that more than 70 percent of mobile phone subscriptions will be for smartphones.



Mobile subscriptions, Europe (million)



Smartphone subscriptions and smartphones to total mobile phone subscriptions ratio, Europe (million and percent)



Note: Mobile subscriptions do not include M2M subscriptions

MOBILE TRAFFIC



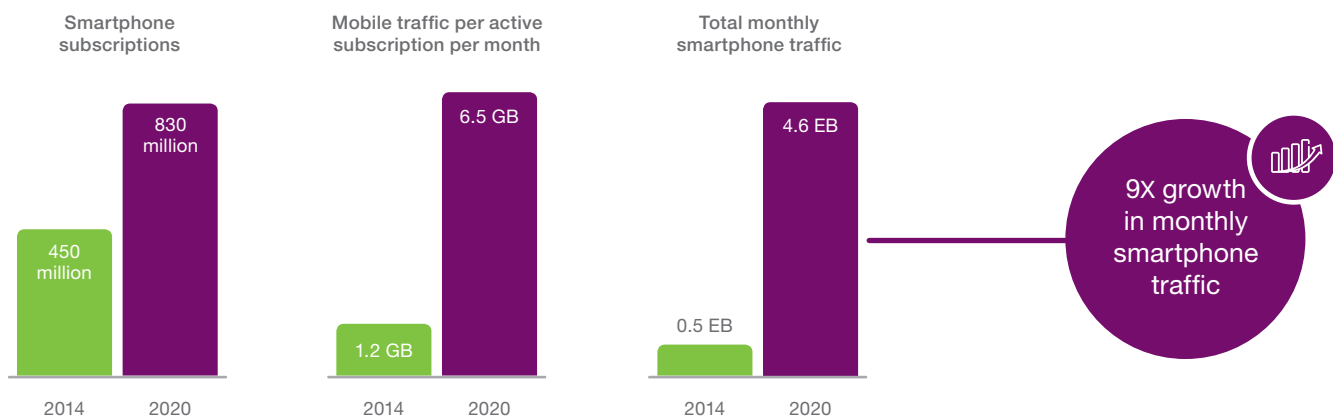
Europeans are consuming more and more mobile data

Mobile traffic in Europe will reach 6.2 ExaBytes (EB) per month by the end of 2020 – around 8 times more than 2014. Mobile voice traffic will slightly increase in the coming years, but will have close to no impact on total mobile traffic volumes. Mobile data traffic is continuing to rise steadily, and grew 50 percent in 2014 compared to 2013. It is expected to rise by a CAGR of around 40 percent between 2014 and 2020. This is due to the availability of affordable smartphones and tablets, which makes it easier to use mobile data services, and attractive data plans, creating significant increases in usage per subscription. The rapid uptake of both smartphones and tablets is fueling consumer demand for a better user experience.

Traffic in the mobile phone segment is primarily generated by smartphones. Total monthly smartphone traffic over mobile networks will grow 9 times between 2014 and 2020. The amount of data used on each active smartphone subscription will increase substantially from an average of 1.2 GB per month in 2014, to a forecast average of around 6.5 GB per month in 2020.

One of the key drivers of rising mobile data usage among consumers is the growth of video consumption on mobile devices, both at home and on-the-go. The improved speed and capacity of HSPA networks is an important factor supporting this trend. The deployment of LTE across Europe will further enhance the user experience.

Smartphone subscriptions and traffic, Europe



Note: Active subscriptions refer to the number of used devices, i.e. not including multiple SIMs or inactive devices

EVOLVING BEHAVIOR

Europeans are using more screens in more places

The penetration of connected devices in European households is increasing significantly and consistently, with smartphones and tablets taking the lion's share of this growth.

People tend to use multiple devices during the day to satisfy their information and communication needs. They enjoy the freedom to access digital services across a multitude of devices: close to 60 percent utilize multiple screens to perform the same digital activity.² Top activities carried out across numerous devices are web browsing, messaging/instant messaging, listening to music and social networking.

The screen-switching aspect is positively correlated to the place-shifting aspect. People who often change location during the day also tend to change devices to access services. In Italy, one-third of people who spend their day in only one or two locations use multiple devices to browse the web. This percentage rises to around 50 percent for people moving across 3 or more locations.² The ability to access information and communicate anywhere and at any time is becoming increasingly more common.

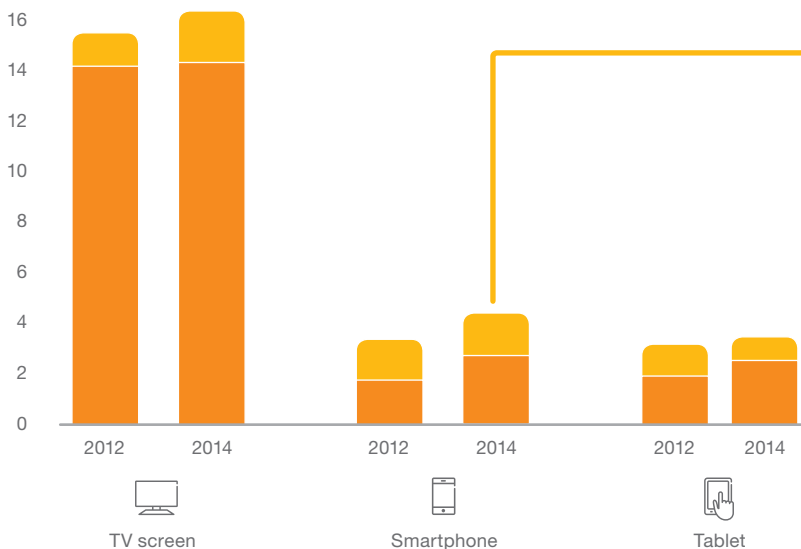
The fact that people consume digital services across several screens makes a case for synchronizing information and content across devices for a more seamless experience. This need is generally satisfied through consumer cloud services such as common storage for personal content, and synchronized agendas, calendars and bookmarks in web browsers. The adoption of such services grows with the number of devices used.

The multiscreen trend is also impacting TV services. The advent of capable mobile platforms, the growing availability of quality on-demand content, as well as the growth of high performing broadband networks is leading to changes in user behavior, as they broaden their viewing habits beyond TV screens. The graph below exemplifies this trend, and shows that users that watch video on their smartphones have increased their weekly consumption.

Viewing on mobile platforms is not limited to short video clips. In fact, in France and Spain, close to 50 percent of smartphone video viewers consume traditional TV content on their mobile on a weekly basis. For smartphones, the percentage of consumption away from home is particularly relevant: smartphone viewers consume more than four hours of video content on a weekly basis, almost half of which they view on-the-go.

Average hours spent watching video on each device per week (those who have used each device)

● At home ● Away from home



Four hours of video content consumed on smartphones weekly

Almost half the time spent watching video on smartphones happens while on-the-go

Source: Ericsson ConsumerLab (2014)

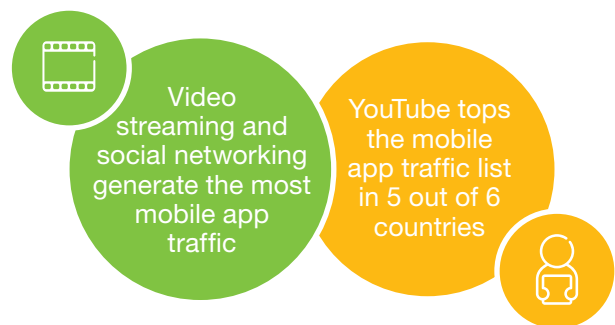
Base: Users of respective devices, nine European markets

² Ericsson ConsumerLab (2014)

Top five apps by mobile app traffic

	UK	Poland	France	Italy
1	YouTube	YouTube	YouTube	Facebook
2	Facebook	Chrome	Facebook	YouTube
3	Chrome	Facebook	Chrome	Chrome
4	Snapchat	Android browser	Snapchat	Snapchat
5	Instagram	Google Maps	Email	WhatsApp

	Sweden	Russian Federation
1	YouTube	YouTube
2	Chrome	Chrome
3	Facebook	Vkontakte
4	Spotify	Odnoklassniki
5	Instagram	Android browser



Note: Based on the top 25 Android apps in each country
 Source: Ericsson analysis based on Mobidia data, February 2015

App traffic is dominated by video streaming and social networking

Mobidia data for the 25 most popular Android apps in 6 European countries during February 2015 was studied to determine the proportions of mobile traffic generated by the top 5 apps.

In each country, the top 5 apps out of the 25 generated a large portion of the mobile app traffic. This illustrates how the changing behavior seen in the growth of smartphone usage for viewing TV and video content outside the home has an impact on the traffic in mobile networks. The six countries that were studied included the UK, Italy, France, Sweden, Poland and Russia. In each country, social networking and video apps were among the most popular, with some local variations. For example, in Sweden, streaming music using Spotify is very popular. In Russia, local social networking services such as Vkontakte – which also features a large amount of video and TV content, some of which is peer-to-peer content – are popular.



Ericsson is the driving force behind the Networked Society – a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, business and society to fulfill their potential and create a more sustainable future.

Our services, software and infrastructure – especially in mobility, broadband and the cloud – are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities.

With approximately 115,000 professionals and customers in 180 countries, we combine global scale with technology and services leadership. We support networks that connect more than 2.5 billion subscribers. Forty percent of the world's mobile traffic is carried over Ericsson networks. And our investments in research and development ensure that our solutions – and our customers – stay in front.

Founded in 1876, Ericsson has its headquarters in Stockholm, Sweden. Net sales in 2014 were SEK 228.0 billion (USD 33.1 billion). Ericsson is listed on NASDAQ OMX stock exchange in Stockholm and the NASDAQ in New York.

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