Financial indicators, fixed and mobile telephony, broadcasting and bundled services indicators

Definitions

Revenues and investment

- **Electronic communications sector revenues**: All wholesale and retail revenues of electronic communications excluding VAT.

- **Electronic communications sector network investment**: All telecommunications network investment (both tangible and intangible) excluding license fees.

Fixed telephony

- **Fixed telephony market**: the market for publicly available telephone services and includes managed VoIP and calls made from public payphones; and should exclude 'peer-to-peer' VoIP services, simple reselling and calling cards.

- **National fixed calls**: all national public fixed voice telephony calls including local calls, long-distance calls and calls to internet (both to geographic and non-geographic numbers, excluding flat tariffs (FRIACO)).

- **Calls to mobile**: all calls in the fixed voice telephony market terminating on a mobile network, excluding calls to foreign mobiles.

- **International calls**: all calls in the fixed telephony market originating in the Member State and terminating abroad. International calls should include calls from fixed geographic numbers to foreign fixed and mobile numbers.

- **Managed VoIP (voice over broadband) operator**: an operator providing a publicly available telephone service (PATS) service using voice over internet protocol technology (VoIP), whereby the operator controls the quality of service provided though an IP network, at a speed over 128 kbit/sec. Unmanaged voice and 'peer to peer' services should not be included. The market share should be calculated based on outgoing minutes of fixed voice communications.

- **Direct access**: the provision of publicly available telephone services through LLU and/or proprietary infrastructure (excluding incumbents).

- **Full LLU**: full unbundled access to the local loop, the provision to a beneficiary of access to the local loop or local sub loop of the notified operator authorising the use of the full frequency spectrum of the twisted metallic pair.

- **Shared access**: the provision to a beneficiary of access to the local loop or local sub loop of the notified operator, authorising the use of the non-voice band frequency spectrum of the twisted metallic pair; the local loop continues to be used by the notified operator to provide the telephone service to the public.
Mobile market

- **Mobile subscriptions**: 2G, 3G and 4G subscriptions of a mobile network operator or Mobile Virtual Network Operators. Number of post-paid active subscribers means number of subscribers with a valid contract. Number of prepaid active subscribers means numbers of subscribers that have made or received a call, sent an SMS or MMS or used data services at least once in the last three months.

- **M2M SIMs**: "M2M is about enabling the flow of data between machines and machines and ultimately machines and people. Regardless of the type of machine or data, information usually flows in the same general way -- from a machine over a network, and then through a gateway to a system where it can be reviewed and acted on.” – [www.m2mcomm.com](http://www.m2mcomm.com).

- **MVNO**: Mobile Virtual Network operators with own SIM cards and own mobile network code. Operators that fulfil the above two conditions, but are majority owned (more than 50%) by any of the Mobile Network Operators operating in the same national market should not be included (e.g. operators being only a sub-brand of Mobile Network Operator should be excluded).

- **ARPU**: Average Revenue per User. Retail mobile revenues divided by the average number of subscriptions.

Broadcasting

- **Satellite TV**: analogue and digital transmission of TV signals to and/or receiving from satellites.

- **Cable TV**: a system of providing television to consumers via radio frequency signals transmitted to televisions through fixed optical fibres or coaxial cables.

- **IPTV**: a system whereby television programmes are delivered to subscribers using Internet Protocol over a broadband connection.

Number portability

- **Time needed for porting a number - regulatory framework**: The maximum time between the conclusion of the agreement to port a number (when the agreement takes into effect), and the activation of the number at the new operator (i.e. the end of the porting process). For fixed numbers, indicate the time needed for porting a number from the incumbent to the major alternative operator. For mobile numbers, indicate the time needed for porting a number from the major mobile operator (operator with the highest market share in terms of revenue) to the second largest operator. Those cases should be excluded, where (1) the customer requests to port a number later than the standard timing proposed by the operator, (2) the porting process is delayed purely due to the lack of cooperation of the customer, and (3) any unexpected event delays the process at the operator's side concerning maximum 5% of all the portings in the given period.

- **Time needed for porting a number – total time**: The maximum time between the first action of the customer (e.g. the submission of the request to port a number or the request to terminate the old contract with the intention to port a number to a new operator including the notice period) and the activation of the number at the new operator. Those cases should be excluded, where (1) the customer requests to port a number later than the standard timing proposed by the operator, (2) the porting process is delayed purely due to the lack
of cooperation of the customer, and (3) any unexpected event delays the process at the operator's side concerning maximum 5% of all the portings in the given period.

Methodology

The data (except for interconnection charges and roaming prices) have been collected by the European Commission, Communications Networks, Content and Technology Directorate General, from national ministries and regulatory authorities except when noted. The definitions have been agreed in the Communications Committee (COCOM).

In some cases, information for some types of access is not available. In a number of countries certain figures are estimates, as the National Regulatory Authorities had not received consolidated data from operators. It should also be noted that in some cases information only refers to major broadband access providers and that broadband access lines provided by small operators are not included.

This report includes information from all 28 Member States.

Data should be interpreted taking the below comments of Member States into consideration:

Bulgaria

*Revenues and Investment:* Revenues from bundled services were distributed on the following principle - if the prices of the different components are not available, the relative value of the different components of bundle should be estimated based on the similar stand-alone products. Data for 2015 were updated.

*Fixed telephony:* The data for 2015 and 2016 are as of 1st of July of the relevant year.

*Broadcasting:* Data for 2016 is as of 31 December 2015. Data for 2015 is as of 31 December 2014. Data for cable TV were updated.

Denmark

*Fixed telephony:* Data for 2015 is as of 31 Dec 2015. Data for 2016 is as of 30 June 2016.

*Broadcasting:* Source - Danish Statistics (Kantar Gallup, Annual Survey). Up until 2014 IPTV was only via fiber-based broadband. From 2015 IPTV is via all broadband distribution types.

Germany

*Revenues and Investment:* Fixed revenues include IPTV. Pay TV includes only cable revenues. Intangible investments are not included.

*Fixed telephony choice:* Data for international calls is based on estimates.

*Fixed telephony market shares:* National fixed calls exclude calls to internet. Data for 2015 is based on estimates.

*Traffic:* Fixed traffic data excludes calls to the internet. Data for 2015 is based on estimates.

*Broadcasting:* Data is as of end 2015. Source: ASTRA TV-Monitor, TNS Infratest. IPTV: Source BNetzA
LLU: shared access is no longer regulated.

**Estonia**

*Number portability:* the ratio of ported numbers and reserved numbers that are issued for operator use is an estimated value. The time needed for porting a number – at regulatory level - starts when the communication contract with new operator has been entered into force and the activation of the number is being taken place at the new operator. Total time depends on customer and recipient operator when both are ready (legally and technically) to carry out the portability. Generally, the number porting takes place at the earliest possible time. In practice, it takes from the first action of the customer to the activation of the number at the new operator max 5-6 working days for mobile numbers and max 7 working days for fixed numbers. According to regulation it is allowed min/max 3-25 working days for mobile numbers and min/max 3-39 working days for fixed number.

**Ireland**

*Traffic:* Mobile telephony traffic includes outbound roaming minutes.

*Broadcasting:* Data is sourced from Nielsen TV Audience Measurement Establishment Survey on behalf of TAM Ireland.

**Greece**

*VoIP:* The figure for 2016 is slightly underestimated.

LLU: The disconnection fees are defined separately and are the following: €9.18 for full LLU and €18.45 for shared LLU.

*Number portability:* Number of days is average values, counted in calendar days.

**Spain**

*Fixed telephony choice:* 2015 data is as of 30th September 2015 and 2016 data is as of 30th September 2016.

*Broadcasting:* As of 1st July 2016 the number of Online TV subscribers is 187,253.

**Croatia**

*ARPU:* Only mobile voice related revenues were included. The number of subscribers is as of the end of the year.

LLU: Data are as of 1st January 2017. Full LLU Connection fee: for already activated local loop costs 45 HRK and for new local loop, 147 HRK. Full ULL monthly rental is 49,53 HRK.

*Number portability:* the number of transactions reported is for the whole year. Accurate overall time can take from 5 up to 45 days. In case of indisputable contractual obligation the donor operator can postpone the ported request for a maximum of 10 working days from the requested date of number porting. Non-geographic numbers are included but their weight is not significant.
Mobile subscribers: Prepaid and postpaid data for M2M are not available. M2M subscribers are not included in the total. Data refers only to mobile voice subscribers.

Lithuania

Revenues and Investment: Device revenues are not included.

Mobile operators: 3 network operators and 2 other operators (UAB, Mediafon Carrier Services, UAB "CSC Teteom") provided call termination services.

Broadcasting: Cable TV includes MMDS.

LLU: Connection fee is 12.89 Eur. From March 2016 there is no one-off test to access fee.

Mobile subscribers: 5 service operators without an own network code provide mobile services through the Bite Lietuva. These subscribers are accounted for Bite Lietuva.

Luxembourg

Fixed telephony: % of subscribers actually using a provider other than the incumbent operator is not relevant in Luxembourg.

VoIP: No separate volumes are collected for managed VoIP fixed calls.

Broadcasting: Satellite TV subscriptions are estimations. Almost all cable TV is digital. IPTV includes only IPTV on xDSL and Fibre.

LLU: Shared access is no longer available.

Mobile subscribers: Data is as of 1 July 2016.

Malta

Revenues and investment: Other refers to Leased Lines revenue. Mobile implies Mobile Telephony and Mobile Broadband. Fixed implies Fixed Telephony and Fixed Broadband.

Fixed telephony: 2015 figures as of end of year. For 2016, the position reflects as of Q3 2016.

Austria

Mobile operators: "Full MVNOs" also include large resellers who are not owned by MNOs.

Portugal

Revenues and investment: Investment data is estimated.

Romania

Revenues and investment: Common investments in both fixed and mobile networks are considered once in the total network investment. Intangible investments other than license fees are not available. However, the corresponding value is marginal.

Fixed telephony: Data is as of 1 July each year.
Fixed market shares: Data also include the traffic through 0808 prepaid cards. However, the volume of this traffic is very low.

Mobile subscribers: Data is as of 1 July each year. The total for full MVNOs refers to both MVNOs: full (Lycamobile S.R.L.) and light (Telekom Romania Communications S.A.).

Finland
LLU: Prices are (simple) average prices. Prices vary significantly from operator to operator.
Number portability: The 'time needed for porting a number - regulatory framework' reflects the maximum time set by FICORA’s regulation. A number has to be ported in 5 working days from the porting request sent by the recipient operator. Total time for porting a number is not measured, but there is no reason for the recipient operator to delay its porting request after making a contract with the customer.

Sweden
Fixed telephony shares: Values for December 2016 are not available.
Broadcasting: Cable TV is understood as analogue or digital subscriptions.

Slovenia
Fixed telephony: International calls include calls from fixed geographical and non-geographical numbers to foreign fixed and mobile numbers.

United Kingdom
Revenues and investment: Wholesale pay-TV revenue data is not available.
Broadcasting: IPTV data is not available.
Mobile subscribers: It is assumed that all M2M connections are post-pay. MVNO data relates to all MVNOs and resellers.