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From: Secretary-General of the European Commission,  
signed by Mr Jordi AYET PUIGARNAU, Director

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To: Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of  
the European Union

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**COMMISSION STAFF WORKING DOCUMENT**

**Europe's Digital Progress Report 2017**

# Europe's Digital Progress Report - 2017

## Telecoms chapter

### GREECE

#### 1.

#### Competitive environment

Coverage	EL-2015	EL-2016	EU-2016
Fixed broadband coverage (total)	99%	99%	98%
Fixed broadband coverage (rural)	96%	97%	93%
Fixed NGA coverage (total)	36%	44%	76%
Fixed NGA coverage (rural)	0%	1%	40%
4G coverage (average over all operators)	no data	80%	84%

Source: Broadband Coverage Study (IHS and Point Topic). Data as of October 2015 and October 2016.

#### Fixed broadband market

99% of Greek households enjoyed basic fixed-line broadband in 2016. Despite its challenging geography, Greece managed to increase its coverage of rural areas by one percentage point to 97%, which was above the EU average (93%). Its coverage of households with next-generation access (NGA) networks increased by 8 percentage points to 44%, but was still very low compared to the EU average (76%). Only 1 % of households in rural areas had access to NGA networks (EU average 40%). This further emphasises the importance of 4G deployment, where Greece fared well with 80% coverage of households, which was very close to the EU average of 84%.

Lack of NGA coverage only partly explained the low NGA take-up, which was the second lowest in the EU. Only 7% of current subscriptions were between 30 Mbps and 100 Mbps. The lowest fixed-line broadband price (12-30 Mbps or higher) was €21.69 compared to €21.33 across the EU.<sup>1</sup>

However, it is reasonable to assume that positive developments in NGA network deployment are on the horizon. The market is expected to enter a phase of deployment thanks to the new regulatory measures adopted in the markets for wholesale local access and wholesale central access for mass-market products. The new remedies could lead to DSL speeds being upgraded (vectoring) and help with the deployment of NGA networks in general, protecting investors from overbuild. Correct implementation of the remedies, which is expected to take 31 months until August 2019, would present the regulator with a real challenge. The fact that there was no-one in charge of EETT (the national regulatory authority) for over a year adversely affected both market regulation and spectrum policy. This was evidenced by a 3 percentage point regression in achieving the spectrum target. A new Head was appointed in mid-2016.

Fixed broadband market shares	EL-2015	EL-2016	EU-2016
Incumbent market share in fixed broadband	42.6%	44.3%	40.7%
Technology market shares			
DSL	99.7%	99.7%	66.8%
Cable	-	-	19.1%
FTTH/B	-	-	10.7%

<sup>1</sup> Source: Fixed broadband prices in Europe in 2016 (Empirica). Prices expressed in EUR/PPP, VAT included. Data as of autumn 2016.

Other	0.3%	0.3%	3.4%
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Source: Communications Committee. Data as of July 2015 and July 2016

As the incumbent OTE is the only provider so far to invest in VDSL networks, its market share increased by almost two percentage points from July 2015 to July 2016 to 44.3%, well above the EU average of 40.7%.

New entrants' DSL subscriptions by type of access (VDSL excluded)	EL-2015	EL-2016	EU-2016
Own network	-	-	0.7%
Full LLU	98.8%	99.2%	75.3%
Shared Access	0.3%	0.2%	4.1%
Bitstream	0.8%	0.6%	13.4%
Resale	-	-	6.6%

Source: Communications Committee. Data as of July 2015 and July 2016

Mobile broadband prices	EL-2015	EL-2016	EU-2016
Least expensive offer for handset (1 GB + 300 calls basket)	81	61	30
Least expensive offer for tablet and laptop (5 GB basket)	21	22	18

Source: Mobile Broadband Price Study (Van Dijk). Prices expressed in EUR/PPP, VAT included. Data as of February 2015 and February 2016.

Alternative operators continued to rely heavily on local loop unbundling (LLU) at the main distribution frame (MDF).

In terms of competitive dynamics, Vodafone Greece completed the acquisition of Hellas On Line in April. As a result, all three mobile network operators (MNO) now have a fixed-line footprint. This is important given the clear trend towards bundled services, especially 'triple play'. According to the 2015 Eurobarometer survey,<sup>2</sup> 60% of Greek households subscribed to a bundled offer (EU 50%), with 56% of households having internet as part of the bundle (EU 40%) and 23 % having mobile in the bundle (EU 23%). On the contrary, given the high penetration rate of digital terrestrial television (DTT) in Greece (82% versus EU average of 43%) and the lack of NGA networks, only 9% of households subscribed to a bundle that included TV (EU 27%). According to data from EETT, the trend towards bundles seemed to continue apace in 2016, with 'quad' and 'triple play services' being the main drivers<sup>3</sup>. In readiness for a phase of NGA deployment, the major alternative operators were exploring strategic co-investment agreements, although they had not ruled out a new round of consolidation.

Mobile broadband prices	EL-2015	EL-2016	EU-2016
Least expensive offer for handset (1 GB + 300 calls basket)	81	61	30
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Source: Mobile Broadband Price Study (Van Dijk). Prices expressed in EUR/PPP<sup>4</sup>, VAT included. Data as of February 2015 and February 2016.

While there was an increase in 4G coverage in Greece, the country still had the second lowest mobile broadband penetration rate for all active users in the EU. This was probably because

<sup>2</sup> Special Eurobarometer 438, E-Communications and the Digital Single Market, October 2015.

<sup>3</sup> Circa 74% of total fixed voice subscriptions are provided as part of a bundle; circa 39% of bundles are triple or quad-play.

<sup>4</sup> Purchasing power parity.

mobile broadband prices are much higher than the EU average (mobile take-up 49.8%, EU average 84%).<sup>5</sup>

<b>Mobile Market</b>	EL-2015	EL-2016	EU-2016
Market share of market leader	N/A	N/A	N/A
Market share of second largest operator	N/A	N/A	N/A
Number of MNOs	3	3	-
Number of MVNOs	1	1	-
Market share of MVNO (SIM cards)	N/A	N/A	N/A

Cyta is the only mobile virtual network operator (MVNO) currently active in the market. Forthnet also expressed an interest in providing MVNO services, but failed to conclude an agreement with one of the MNOs. However, it filed a request for dispute resolution with EETT.

## 2. **Supporting measures for deployment and investment in high-speed networks**

### a. **Spectrum**

Harmonised band	MHz spectrum assigned <sup>6</sup>	% of the harmonised band assigned
700 MHz	0	0
800 MHz	60	100
900 MHz	70	100
1500 MHz	0	0
1800 MHz	150	100
2000 MHz paired	90	75
2600 MHz	180	94.7
3400-3600 MHz	186	93
3600-3800 MHz	0	0

Greece has assigned 68 % of the EU harmonised spectrum available for wireless broadband.

<sup>5</sup> Statistical evidence indicates a negative correlation between high prices and mobile take-up.

<sup>6</sup> Including guard bands.

While no spectrum was assigned for wireless broadband during the reporting year, Greece did extend the rights of two providers to use frequencies in the 1800 MHz band for a period of 18 months following a public consultation. This was because the tender procedure could not be held, owing to delays in appointing a new Head of EETT. Greece extended the rights of use in the 26 GHz band by law. However, no public consultation was ever conducted.<sup>7</sup>

EETT is currently implementing Commission Implementing Decision (EU) 2016/339 harmonising the 2010-2025 MHz frequency band for portable or mobile wireless video links and cordless cameras used for programme making and special events.

Whilst the Ministry of Digital Policy, Telecommunications and Information has not yet unveiled its future plans for the 700 MHz band,<sup>8</sup> Greece is working with neighbouring Mediterranean countries to provide new channels in lower bands in order to be able to migrate its military systems and DTT services (two multiplexers) that currently occupy the band. In 2016, the State Council found that parts of the legislation which Greece intended to use to grant only four nationwide TV licences for general content for broadcasting in DTT violated the constitution.

#### b. **EU and national investments in broadband**

Greece restructured its administration in 2016, bringing all digital policy departments under one ministry (Ministry of Digital Policy, Telecommunications and Information).

A public consultation on a new Digital Strategy for 2016-2021 was launched and completed. The strategy relies on seven priority actions, with the deployment of NGA network infrastructure being the first. The Digital Strategy refers to the National Next Generation Broadband Access Plan for 2014-2020, drawn up in June 2015, and updates it with the new Gigabit targets. It reaffirms Greece's intention to finance NGA infrastructure in areas where there is not already any infrastructure with such NGA capacity.

The broadband strategy is based on the assumption that the private sector will fund most such investments, with public intervention focusing mostly on areas plagued by market failure (required funding is expected to be between €1.36 billion and €4.53 billion). Greece is allotting EUR 304 million of ESI Funds to the deployment of broadband infrastructure, specifically to high-speed networks (access/local loop  $\geq$  30 Mbps). At present, only 8.6% of these funds have been used. There are currently no plans for other financial instruments to be used in broadband deployment.

The strategy reaffirms Greece's intention to focus on two projects: *the rural extension project (an extension of the rural broadband project)*, necessary for the country to achieve the target of 30 Mbps coverage; and *superfast broadband*, which aims to boost the take-up of ultra-fast broadband. This will help Greece hit the 100 Mbps target.

According to the NGA plan, required funding is expected to total between €1.36 billion and €4.53 billion. Greece has no regional broadband plans. However, the plan states that

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<sup>7</sup> EETT was unable to extend the rights because it was unable to legally adopt decisions when the rights expired. The expired rights of use in the 26 GHz band were successfully put out to tender at the beginning of 2017.

<sup>8</sup> Following Commission Implementation Decision (EU) 2016/687 on the harmonisation of the 694-790 MHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services and for flexible national use in the Union.

regional/trans-regional projects have been put in place. Some public financing resources are being earmarked for the deployment of NGA networks. The operational programme ‘Competitiveness, Entrepreneurship and Innovation’ includes €2.54 billion of funding for broadband.

The Rural Broadband Project was due to be completed and entered the implementation phase in 2016. The three contractors requested an extension, which was granted until mid-2017. As the competent authority responsible for monitoring and enforcing access, transparency, non-discrimination and price control obligations laid down by the tender, EETT approved the reference offers. One of the operators has already provided wholesale access.

EETT’s one-stop shop for antenna licensing greatly helped reduce the backlog of unlicensed antennas and base stations.<sup>9</sup> However, the main problem lies with town planning authorities, which are not connected online to the one-stop shop. Licensing of the radio network remains one of the challenges facing providers to complete 4G deployment and fully exploit the assigned spectrum.

c. **State of transposition of the  
Broadband Cost Reduction Directive**

Greece had not transposed the Broadband Cost Reduction Directive 2014/61/EU in 2016<sup>10</sup>, and the only draft available was an early one that was put up for public consultation in spring 2016. The providers expressed concerns that this early draft did not sufficiently exploit the cross-sector cost reduction potential offered by the Directive. After the deadline for transposing the Directive expired on 1 January 2016, the Commission opened infringement proceedings against Greece for failure to notify it about transposition measures.

**3. Regulatory function**

In 2016, the Commission launched infringement proceedings against Greece on account of recent legislation that reduced the independence of EETT and provided disproportionate penalties for the non-use of spectrum. These proceedings are still ongoing.

Since there was a 16-month delay in appointing a new chief executive and EETT was therefore unable to legally take decisions for a whole year, there were long delays in completing the review of the relevant markets within the 3-year deadline provided by EU law, which prompted the Commission to investigate. Following the appointment of a new chief executive, the EETT started addressing the delays and published its analysis of the following markets at the end of 2016: a) access to the public telephone network at a fixed location for residential and non-residential customers (market 1 of the 2007 Commission Recommendation on relevant markets susceptible to ex ante market regulation); and b) wholesale local access provided at a fixed location and wholesale central access provided at a fixed location for mass-market products (markets 3a and 3b respectively of the 2014 Recommendation).

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<sup>9</sup> This long-standing problem has still not been resolved, and a new extension of the validity of unlicensed antennas was established by law.

<sup>10</sup> In the meantime, Greece notified the complete transposition of the Directive on 31 March 2017.

Following the adoption of the decision, EETT also approved OTE's new wholesale product Virtual Partial Unbundled Loop (VPU light) at the end of 2016, although it was published only in 2017.

In its decision on the retail access market, on which the Commission had no comments, EETT proposed deregulating the market. Although there are barriers to market entry, the structure of the market is conducive to genuine competition and hence the market fails to pass one of the three criteria test to warrant *ex ante* market regulation. EETT still regulates two markets which, though included in the 2003 Recommendation, were removed after the 2007 Recommendation came into force: the market for the minimum set of leased lines (market 7); and the market for wholesale trunk segments of leased lines.

It also maintains *ex ante* market regulation of the market for call origination on the public telephone network provided at a fixed location (market 2 of the 2007 Recommendation, not included in the 2014 Recommendation). EETT was late in analysing all these markets and has not requested an extension of the 3-year deadline for completing the review.

Finally, EETT was still late in analysing the following markets of the 2014 Recommendation, with delays ranging from days to years: wholesale voice call termination on individual public telephone networks provided at a fixed location (market 1); wholesale voice call termination on mobile networks (market 2); and wholesale high-quality access provided at a fixed location.

EETT's decision on markets 3a and 3b is expected to shape the NGA broadband market for years to come. In its decision, EETT is trying to strike a balance between the potential risks to competition inherent in its proposal to grant exclusive rights for a certain area and time and the current situation affecting the Greek market with no deployment of alternative infrastructure. It does so by awarding the exclusive right to use vectoring technology in street cabinets balanced against an obligation to deploy NGA technology capable of delivering at least 100 Mbps to retail users (VDSL vectoring or FTTB/H). The assignment does not prevent operators from deploying technology that is compatible with vectoring in any MDF allocated to another operator at any time in the process.<sup>11</sup>

In its comments, the Commission invited EETT to further substantiate the scope of the exclusivity; closely monitor and enforce OTE's compliance with information requirements; ensure that the technical specifications and prices of the Virtual Unbundled Local Access (VULA) product allow alternative operators to compete effectively on the relevant retail markets; and bring its bottom-up costing model into line with the Commission Recommendation on non-discrimination and costing methodologies.

On the remedies imposed in market 3b, the Commission asked EETT to calculate the prices for the bitstream products based on its BU LRIC+ cost model instead of the proposed top-down LRAIC+/CCA model.

Bottom-up pure LRIC models were used to set both mobile and fixed-line termination rates.<sup>12</sup> OTE's fixed-line termination rate (€0.0665) was the fifth lowest in the EU. The mobile

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<sup>11</sup> A description of the scheme is available in C(2016) 8300 final.

<sup>12</sup> Cf. BEREC Report on Termination rates at European level, July 2016, BoR(16) 218, Annexes 3 and 8.



termination rate of €0.0010810 euro cents was very close to but still below the EU average of €0.0010836.<sup>13</sup>

#### 4.

#### Consumer issues

Number portability		EL-2015	EL-2016
Fixed	Number of transactions [1]	403,459	305,882
	Transactions as a % of total numbers [1]	8.5%	6.5%
	Maximum wholesale price [2]	1	1
	Maximum time under regulation (number of working days) [2]	3	2
Mobile	Number of transactions [1]	341,039	294,402
	Transactions as a % of total numbers [1]	2.6%	2.3%
	Maximum wholesale price [2]	1	1
	Maximum time under regulation (number of working days) [2]	3	2

[3] Source: Communications Committee. Data as of January to September 2015 and January to September 2016.

[2] Source: Communications Committee. Data as of October 2015 and October 2016.

Based on the 2016 Consumer Markets Scoreboard,<sup>14</sup> overall consumer satisfaction on electronic communications services decreased between 2013 and 2015 (e.g. electronic products (-0.2%), TV subscription (-3.4%), Internet provision (-1.5%), fixed telephony services (-0.4%), mobile telephony services (-5.8%).)

#### Bundles

According to the latest Eurobarometer survey, Greek consumers could easily compare bundles (84%, second only to Italy), with households the most likely to have changed bundles at least once (80%). It was easier for them to monitor mobile usage (77%, EU average 69%) rather than fixed-line usage (61%, EU average 71%), and they were largely satisfied with the clarity of their contract (78%, EU average 68%).

#### Transparency

EETT developed an online tariff comparison and observation tool called *Pricescope*, which aims to increase tariff transparency.

#### Universal service

The scope of universal service currently includes access to a network at a fixed location, comprehensive directory and directory enquiry services, and public payphones. In 2016, an alternative operator (Forthnet) was designated for the first time to provide access at a fixed location for at least 3 years starting from 2017, with maximum compensation of €4.93 million.

#### Roaming

The average retail Eurotariff price for roaming was €0.160 per minute for outgoing calls (EEA average €0.112) and €0.048 (EEA average €0.026) per minute for incoming calls (with alternative tariffs more expensive both for outgoing and incoming calls), €0.054 per text

<sup>13</sup> Ibid. figures 1 and 2. The mobile termination rate for 2017 is expected to fall further to 1.072 euro cents.

<sup>14</sup> [http://ec.europa.eu/consumers/consumer\\_evidence/consumer\\_scoreboards/12\\_edition/index\\_en.htm.2016](http://ec.europa.eu/consumers/consumer_evidence/consumer_scoreboards/12_edition/index_en.htm.2016)

message (EEA average €0.047) and €0.166 per MB, which was more than three times the EEA average (€0.048).<sup>15</sup>

Greek law provides for no particular penalties for breaching the roaming regulation. However, general penalties do apply and allow EETT to impose fines of up to €3 million and, in the case of serious and recurrent infringements, suspend or withdraw the general authorisation.

EETT is currently investigating possible infringements of the regulation, in particular the alleged practice of certain MNOs of excluding some tariffs from the RLAH+ pricing policy, and whether a perceived increase in domestic retail prices is related to the entry into force of the roaming regulation.

### **Net neutrality**

EETT introduced an additional monitoring mechanism to register and classify consumer complaints on net neutrality. There were no breaches of Regulation (EU) No. 2120/2015 documented in 2016.

Article 6 of Regulation (EU) 2015/2120 states that 'Member States shall lay down the rules on penalties applicable to infringements of Articles 3, 4 and 5.' The deadline to notify the Commission of these rules and measures was 30 April 2016. Greece failed to notify the Commission of the penalties referred to in Article 6. The Commission is looking into the matter. General penalties still apply, as explained in the sub-section on roaming.

### **112 and access for disabled end-users to emergency services**

The Commission is looking into reports of very long times (28 mins 58 secs) to receive caller location information for calls to the single European emergency number<sup>16</sup>. Greece also reported an abnormally high ratio of false calls (96.93%) and is currently investigating the reasons for this. Awareness among Greek consumers of 112 remained fairly low (13% knew that they could use 112 in the EU compared to 48% across the EU, while only 6% knew they could use it in Greece, compared to 61% in the EU).

## **5.**

## **Conclusion**

Greece lags considerably in relation to the Digital Agenda for Europe targets established in the Broadband Strategy. To make up for lost time, it would benefit from creating the right conditions for private investment, which depend on the timely adoption and correct implementation of regulatory decisions; the timely release of spectrum necessary for high-speed broadband deployment; and the transposition and smooth implementation of the Broadband Cost Reduction Directive.

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<sup>15</sup> International Roaming BEREC Benchmark Data Report October 2015 — March 2016, BoR (16) 160.

<sup>16</sup> At the end of 2016, Greece managed to improve the procedures relevant for caller location information and notified significantly reduced deadlines (5 mins and 7 secs), confirmed in February 2017.