Memorandum

To: The Executive Committee

From: [redacted]

Subject: Five Forces Analysis for Broadband Industry in Greece

Date: January 2, 2009

The Telecommunications Industry in Greece had until recently a slow rate development. The Hellenic Telecommunications Organization (OTE) was the incumbent monopolist until 2001, where Greek Government, complying with the EU regulations, opened the Telecommunications market, attracting new entrants. The growth of the internet and telephony market was slow at the beginning, but with the arrival of broadband networks the rate of development has increased sensibly. Today there are seven telecom companies competing for larger market shares.

Market Definition

The product market of this analysis is broadband services - fast internet / telephony / digital TV and combinations. The development of this market is considered as a priority issue for all developed countries and the prospects are high. The geographic scope is the Greek market, since telecommunication companies serve customers all over Greece (even though in some cases network coverage limitations exist).

Internal Rivalry

There are seven telecommunication companies that offer broadband services in Greece today: OTE (Hellenic Telecommunications Organization), Forthnet, Tellas, Hellas on Line, Vodafone Greece, Vivodi and On Telecoms. OTE, partly privatized

today[1] (state owns 25% of shares), was the incumbent monopolist until 2001, since it was the only company to provide fixed-line telephony and other telecommunication services. After the implementation of the EU regulations for communication practices, the market opened but due to legislation obstacles it was only after 2004 that new companies begun to enter the market. The main problem faced by the entrants was OTE's reluctance to offer Local loop unbundling (LLU)[2] to other telecom providers and its practice to overcharge these services. In an attempt to solve the problem, National Committee of Telecommunications and Posts (EETT) issued regulatory rules in 2006 and 2008, limiting this kind of practices by OTE[3].

According to statistics from the Organization for Economic Cooperation and Development (OECD)[4] and EETT[5], the total number of active broadband connections in June 2008 was 1.245.974 (11,2% population penetration) presenting a 61,57% increase since June 2007 and a 23,16% increase since December 2007. Based on these facts, OTE owns 58% of market share, followed by the other alternative providers. 13,4% of the total connections is owned by the other providers that use the current OTE infrastructure (APYΣ network)[6] and only 28,6% are LLU connections. Forthnet is considered as the larger alternative provider in Greece today, holding 42.5% of the alternatives providers' market share in 2007[7].

The competition in broadband market has been heavy for the last 2 years. The main reason for that is the small number of available LLUs (at least since 2008). Telecom companies couldn't expand without acquiring customers from other companies or from OTE, and that was a practice widely used. Companies accused each other for defamation and unfair competition and in some cases they where punished with fines. OTE for example was accused for delaying the development of the market on purpose so as to prevent the other telecom companies from expanding. On the other

hand, some alternative providers accused OTE for all the technical problems or the delays in activation their customers experienced, something that was far from truth.

The entrance of other telecommunication companies, like Hellas on Line and Vodafone Greece, has sharpened even more the competition. Companies compete both in price and non-price dimension. On a price point of view, a continuous price decline takes place the last 6 years according to the Observatory for the Greek Information Society[8], though the average price still remains high. Today the monthly cost for a home double-play connection (24Mb internet speed and telephony) varies from 24€ to 59€ per month (based on the prices announced in the companies' websites)[9], with OTE being the most expensive choice. For corporate customers the cost is higher. All providers usually announce offers to attract new customers. For example, most of them offer connection and setup of the new service for free (it usually costs 32€ - 50€), free equipment or a discount in the monthly charge for the first 3 to 6 months of service. This intense rivalry led three companies that offered broadband services, ALTEC Telecoms, Teledome and Lannet, to bankruptcy in the second half of 2008[10].

The competition is also intense in non-price level. Broadband companies offer a variety of products today (combination of internet in different speeds, telephony and in some cases TV) that a customer may choose and since the basic service is almost the same for all companies, they compete in quality and other added-value services. The penetration of triple-play is still small (1,3% according to research by Focus-Bari[11]) but for the other services the rivalry leads to continuous improvements. For example, most providers now offer for the basic double-play pack unlimited calls to local and long-distance calls, plus one hour free talk time to mobile phones and

free calls to more abroad destinations. Also, companies engage large advertising campaigns, attempting to attract new customers.

Another factor that affects internal rivalry is the strong exit barriers for the telecommunication companies. All of them have made huge investments in network infrastructure and wiring, and the cost of exiting the market is high. Although the market prospects are good, with the broadband penetration to increase in an increasing rate, the costs for a new company to enter (buying another company's infrastructure) is high. Thus, most of the telecommunication companies are "here to stay".

Nevertheless, OTE still has the advantage in broadband for distant locations. The alternative telecommunication companies have invested heavily in building their own network infrastructure, but they are still in the phase of expansion, and none of them has a fully developed network that can cover the whole Greek dominion. To serve customers in such locations, they use OTE's network (they lease lines in wholesale). The penetration in distant locations and in some province towns is still small, and the rivalry there is not that intense (and in some cases is non-exist). Additionally, as mentioned above, currently only three companies offer triple-play; Vivodi, On Telecoms and Tellas, while Forthnet has currently redeemed NOVA, a Digital TV platform, planning to offer triple-play soon.

Barriers to Enter

The entry barriers for the broadband market are high. The most significant entry barrier is the high investment costs an entrant must undertake for installing the necessary infrastructure. Vivodi for example has invested 90M€ so far, Forthnet has redeemed NOVA for 500M€, while Hellas Online plans to increase its capital by

150M€. To be able to offer broadband services, the potential entrant should be capable to deal with such high investments.

Another deterring factor is that the incumbents have advantages both from experience point of view and from location point of view. The two major incumbents (OTE and Forthnet) exist in the market many years and have experience, and the others have already begun to expand. In addition, all alternative providers have expanded their infrastructure and it will be difficult for the potential entrant to catch up and obtain a market before them.

Incumbents are also protected because the available capacity isn't infinite. The rate of increase in LLUs isn't high[12] and the demand from the incumbents is high. The last two years have shown that there is strong competition between the existing telecom companies, and the incumbents, especially OTE, don't welcome entrants.

The potential entrant must obtain a license from the National Committee of Telecommunications and Posts (EETT) but that isn't considered as a deterring factor, since it isn't difficult for a company to obtain this licence. In addition, Government doesn't favour incumbents, but reversely protects the entrants.

Substitutes and Complements

For the broadband products there isn't a substitute for the whole service (triple-play – telephony, fast internet and digital TV together). If we examine the single services, there are some substitutes. For the fast internet the substitutes in Greece are low-speed dial-up Internet connections, low speed ADSL connections and satellite Internet. Since the speed of broadband Internet is much higher than the first two types of connection and the service is more advanced technologically, these aren't considered as close substitutes. Satellite Internet isn't widespread in Greece, the

speed is much lower than the high-speed broadband Internet and the cost of equipment is high (it varies from 399€ to 1800€), making it a solution mainly for distant locations, where broadband internet isn't available.

The substitutes for telephony offered by broadband companies are mobile telephony and traditional wired telephony (provided only from OTE). These substitutes are considered close substitutes since the price of telephony is the main criterion for the customer choice. As for the digital TV, there are three substitutes, pay satellite platforms, free satellite channels and free private and public channels. The only pay satellite platform in Greece is NOVA, recently redeemed by Forthnet. Free private and public channels and free satellite channels are very close substitutes for broadband TV, since they are free, and this is the main reason for the broadband TV's small penetration.

The complements for broadband services are computers and network equipment (routers). The price of network equipment is low (from 30€ to 60€ based on the prices announced in their websites) and sometimes it is offered for free by the telecom companies. So this complement isn't considered as deterring factor. The price of computers declines continuously and the cost of purchasing a personal computer varies from 400€ to 1500€. The price isn't considered high and this complements supports the penetration of broadband services in Greece. But the limited use of computers and internet is a limiting factor for the broadband penetration (according to a 2007 study, only 45,1% of men and 32.8% of women use a personal computer while only 30,2% of households have internet access at home[13]).

Supplier Power

There are two types of suppliers for broadband companies. The first type is suppliers of network hardware/ infrastructure/services that have limited power. There are many suppliers of this type globally, so broadband companies can negotiate prices and accept the best offers. On the other hand there is a specific supplier, OTE, with whom the case is completely different.

OTE, as is the only supplier of LLUs in Greece, has significant power over the other telecom providers. In the past, OTE used his power to prevent new companies from entering the market, by high prices and slow rate of development in LLUs. After National Committee of Telecommunications and Posts (EETT) posed regulations for the market, this practice was confined. But from time to time OTE uses his power to delay the plans of the other companies. For example, EETT posed a 9M€ fine to OTE in July 2008 for putting a series of obstacles in Tellas' attempt to introduce a new double-play product on the market[14]. In 2009 Deutche Telecomm will enter in OTE (in 2008 Deutche Telecomm aquired 25% of OTE's shares), and the other providers wait the next moves and the new strategy of OTE.

Buyer Power

There are two categories of buyers, residential and soho (small office / home office) customers and corporate customers. The first category has limited power since there are relatively many buyers, the service isn't expensive and they cannot negotiate for individual transactions. The customers are also tied up in yearly contracts and the terms of these contracts include return of the equipment and compensation to the broadband provider in case the customer disconnects from the network before the end of the year(the average compensation is around 70€).

Only the large corporate customers have some power over the telecom providers, since they can achieve (to a point) better prices or different contract conditions than other customers (for example different type of support).

Specifically for OTE, customers like the other telecom companies have power, since they buy wholesale LLUs and network connections (ΑΡΥΣ network) but since OTE is their only supplier for these services, their power is reduced.

Conclusion

The broadband market in Greece appears to be a dynamic market but is not fully developed yet. Companies are competing for market share and the last year was a year of reorganization and clean-up. The interest for broadband services is increasing and the use of technology is expanding, so further growth is expected. The stake for telecom companies is to find the necessary capital for the growth of their infrastructure and services, especially today when financial crisis intensifies.

TABLE 1
Five Forces Analysis of Broadband Market in Greece

Force	*Threat to Profits*
Internal Rivalry	High
Entry	Medium but decreasing
Substitutes and Complements	Medium
Supplier Power	High
Buyer Power	Low

excellent paper.
good research yields good analysis!

A

APPENDIX: Sources and References

1. "*OTE sale deal clinched*", Kathimerini(http://www.ekathimerini.com), May 15, 2008
2. "*Local loop unbundling (LLU or LLUB) is the regulatory process of allowing multiple telecommunications operators to use connections from the telephone exchange's central office to the customer's premises. The physical wire connection between customer and company is known as a "local loop," and it is owned by the incumbent local exchange carrier.*"
   (http://en.wikipedia.org/wiki/Local_loop_unbundling)
3. "Two *Years from the Enactment of the New Telecommunications Law*", Hellenic Telecommunications and Post Commission (EETT), March 2008, p. 1-3
4. Organization for Economic Cooperation and Development (OECD), Directorate for Science, Technology and Industry OECD Broadband Portal
5. "*Course of Broadband in Greece, 2nd quarter 2008*", Hellenic Telecommunications and Post Commision(EETT) , June 2008, p. 4,6
6. ΑΡΥΣ is the Greek definition for ADSL and is about the broadband technology that uses the existing telephone lines' copper cables in order to succeed in achieving higher data transmission speed (along with the simultaneous voice transmission).
7. AtKearney, Planning SA,*"Developing the Hellenic Ministry of Transport and Communications 5-year broadband strategy for Greece"*, Hellenic Ministry of Transport & Communications, May 2008.

8. *"7th Six-Month Report of the Observatory for the Greek Information Society regarding broadband development in Greece"*, Observatory for the Greek Information Society, June 2008, pages 10,11.
9. Current prices information as announced on these websites: www.forthnet.gr, www.ontelecoms.gr, www.vivodi.gr, www.tellas.gr, www.ote.gr, www.hol.gr, www.vodafone.gr.
10. Costas Troulos, "*Greece's Telecom Market: A Reality Check (part I)*", posted on Broadband Prime, October 30, 2008.
11. Focus – Bari research, "*Focus Double - Triple Play*", Federation of Hellenic Information Technology and Communication Enterprises(SEPE), March 2008
12. "*Fostering competition in network industries*", **OECD Economic Surveys**. Apr 2007, Vol. 2007, Iss. 5.
13. Elli Pagourtzi, Maria Mavri, "*Measuring Greek Information Society*", Observatory for the Greek Information Society, May 2008 , pages 7,8
14. "*Economy in Brief*", Kathimerini, July 29, 2008.

Other general resources

1. Viviane Reding, "*Why Greece needs broadband and why it needs it now – a European perspective*", The International Conference "Exploring the Global Dynamics of Broadband Internet" , June 2007.
2. "*Development of the Broadband Market in Greece*", Hellenic Telecommunications and Post Commision(EETT) Newsletter, April 2007, Iss.12.
3. "Broadband connections & penetration in Greece", Observatory for the Greek Information Society, July 2008.

4. "*Broadband Year: Broadband Promotion Actions: The Broadband Progress in Greece* ", Hellenic Telecommunications and Post Commision(EETT) , Annual Report 2007.

Print article

OTE sale deal clinched

Gov't to share ownership, management of incumbent with D. Telekom

The government agreed yesterday to sell part of its stake in OTE telecom to Deutsche Telekom and will share management of the former state monopoly in one of the largest foreign investments to take place in Greece in recent years.

Finance Minister Giorgos Alogoskoufis said the Greek state and Deutsche Telekom would each control 25 percent plus one share of OTE while the German company could raise its holding.

"The agreement with one of the largest and most reliable telecoms organizations in Europe and the world, opens a new chapter not only for OTE but for the whole of the Greek economy," he said.

The German group agreed to pay 29.75 euros for each OTE share, about 45 percent above current prices, for 3 percent of the government's holding in the company.

The minister said each side would control five seats on OTE's 10-member board.

In March, Deutsche Telekom had agreed to buy a 20 percent stake in OTE from Marfin Investment Group.

Greece has been struggling to attract foreign investors since French lender Credit Agricole bought a majority stake in Emporiki Bank back in 2006. The OTE deal will also earn the government 442 million euros which will go toward paying off the country's large public debt.

The sale will only come into effect after it is approved by Parliament, where the conservatives have a slim one-seat majority in the 300-member house.

The agreement has faced strong opposition from labor unions and opposition parties.

"The government's sell-off of OTE to Deutsche Telekom, despite opposition from the majority of society, is like putting up a 'for sale' sign on the future of the country," said Dimitris Stratoulis of Synaspismos Left Coalition.

Meanwhile, PASOK said it will exhaust all of its legal means to regain control of OTE from the German operator if it returns to power at the next elections.

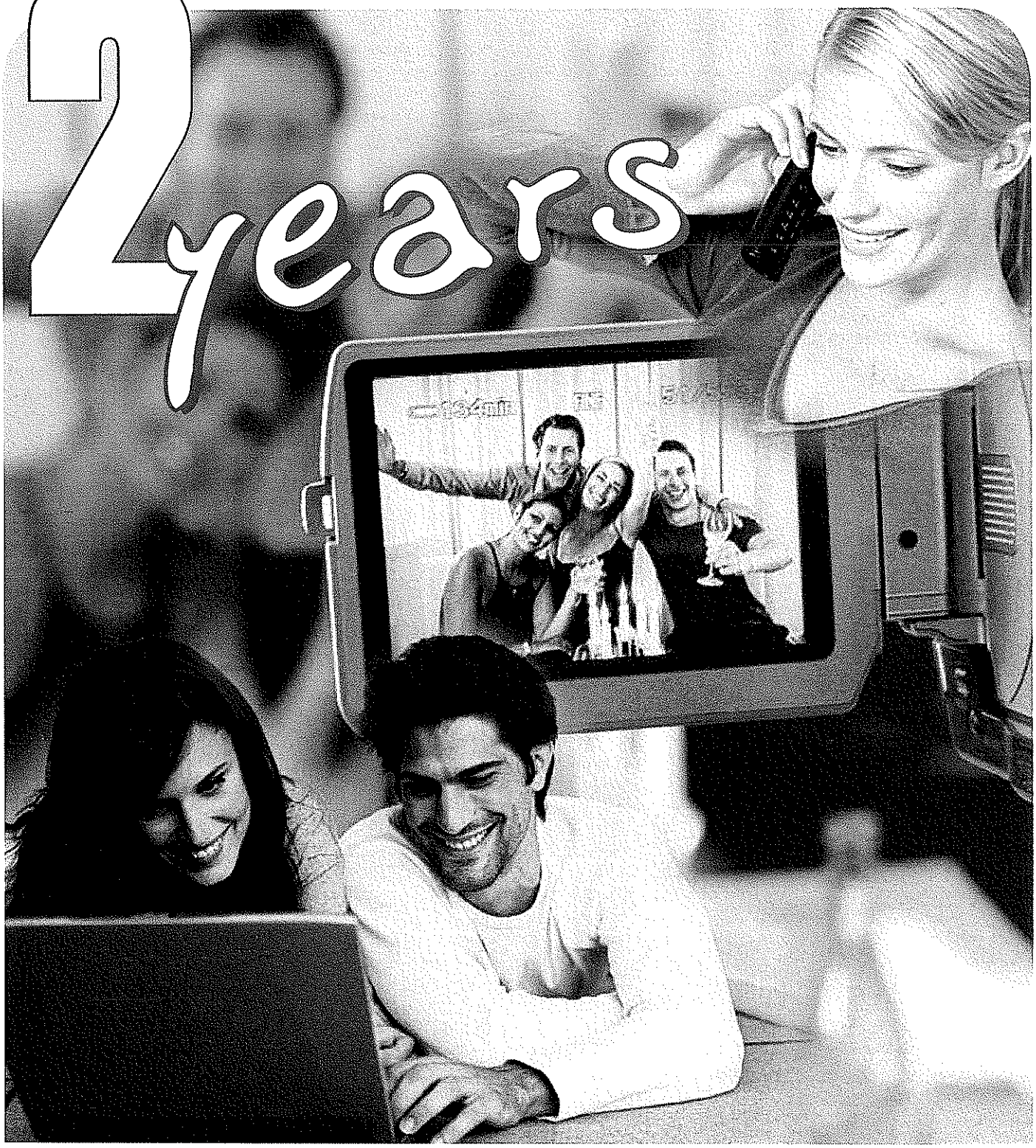
PASOK leader George Papandreou said he objected to the deal because Greece should not be handing over control of companies that are of "strategic importance" as they should operate "for the benefit of citizens and consumers."

OTE employees have called a 24-hour strike for today.

Date : *15/5/08*

Close

2 years



from the Enactment of the New Telecommunications Law

ΕΕΤΤ

HELLENIC TELECOMMUNICATIONS AND POST COMMISSION

Introduction by the President

Two years from the enactment of the new Electronic Communications Law, the results of the regulatory policy are evident, both in the market as well as in the benefits reaped by the consumers.

The coordinated actions by the Hellenic Telecommunications and Post Commission (EETT) for the collocation and the unbundling of the local loop have increased competition and have given impetus to the broadband development, with significant benefits for the consumer (new, innovative products and services, with higher broadband speeds at lower prices).

Our first year (2006) was the "year of preparation" (adaptation of the Community Law for Electronic Communications in the National Law, completion of the market analysis by EETT and issuance of the necessary regulatory acts). Our second year (2007) was the "year of application" (strict application of the regulatory acts by EETT), which has caused the operation model of the telecommunications market to change from reselling to investing on infrastructure networks, opened the market to competition and enabled alternative providers to offer new, innovative products -such as convergence of fixed - mobile telephony and combination of telephony, Internet and TV/Video- at higher speeds and lower prices. I am confident that our third year (2008) will constitute a landmark towards realizing our vision, which is the creation of a fully liberalized and competitive market of electronic communications that will focus on providing the best services to the consumer.

During this two-year period, the new regulatory environment, and especially the strict application by EETT of the regulations for the actual unbundling of the local loop, have encouraged alternative operators to invest in infrastructure networks, thus reducing their dependence on the Hellenic Telecommunications Organization (OTE). As a consequence, alternative operators have been able to promote new products on the market, which combine fixed and mobile telephony or broadband Internet access and fixed telephony services and television and/or video on demand over the Internet.

Access speeds to the Internet increased tremendously, while prices dropped significantly. This boom gradually spreads from Athens to the rest of the country, enabling an ever-increasing number of consumers to select the operator or the service, which best suits their needs. At the same time, the public gets more and more acquainted with broadband, leading to an "avalanche" of broadband development. As a result, in 2007, Local Loop Unbundling (LLU) increased more than tenfold (!), and Greece emerged as one of the most rapidly developing broadband markets in the EU. At the same time, the deregulation of Wi-Fi networks, in conjunction with the emergence of (reasonably priced) mobile broadband services based on third-generation mobile communications networks, have freed broadband users from all restrictions.

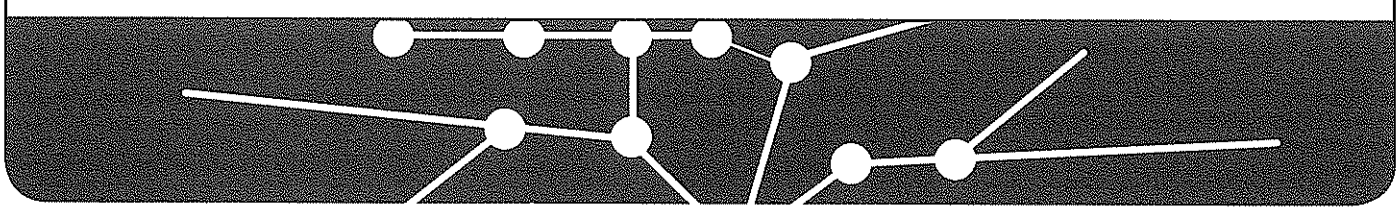
This issue briefly presents the ten most significant developments in the sector during the first two years of our term of office and of the enforcement of the new Electronic Communications Law (the "top 10" during the two-year period).

So far, the conclusion drawn from the application by EETT of the new Law on Electronic Communications over the past two years is the following: "As long as the State empowers us with the appropriate legislative tools, we are able to produce remarkable results".

However, since Greece has been late in incorporating the Community Directives into the national legislation, it has fallen behind compared to the other EU member states. In order to bridge this gap, it is necessary (a) to remove the structural competition problems, which have existed in the market for a long time (for instance, by improving the buy-sell relation between OTE S.A. and the alternative operators, which does not work effectively) and (b) that all related organizations intensify their efforts. Furthermore, if we want to have a leading role in Europe, the rest of the State must adopt a more ambitious and aggressive policy, with well-informed and coordinated, groundbreaking and innovative actions. We believe that the new strategy of the Ministry of Transport and Communications for the development of fiber-to-the-home networks will contribute substantially in this direction.

Maroussi, March 2008

Professor Nikitas Alexandridis
EETT President



Reinforcement of competition, development of broadband, significant benefits for the consumer

(Top 10 for the two-year period)

1. **The only market with reducing prices**
   The only market where prices drop each year, in contrast to all other markets, where prices rise (4.2% reduction in prices for the period December 2005 - December 2007, according to the Consumer Price Index and a drop of 80%-90% in broadband access costs per Mbps for the same period).

2. **Change of market operation model**
   Alternative operators invest in developing privately owned infrastructures and climb the ladder of investment, thus taking full advantage of the unbundling of the Local Loop.

3. **Consumers are becoming more familiar with broadband services**
   The term "broadband" –which was unknown to most of the people two years ago– is now becoming part of our language and everyday life.

4. **Rapid development of Unbundled Access to the Local Loop**
   The consumers that have been connected to alternative operators by using LLU Lines have increased over the past year from 20,000 to 274,000 (an increase of nearly 1300%), which corresponds to over 20% of broadband lines.

5. **Skyrocketing increase of Internet access speeds**
   With the unbundling of the Local Loop, Internet access packages are offered today at speeds up to 24Mbps, whereas only two years ago they did not exceed 1Mbps.

6. **Wide selection of innovative services for consumers**
   Over the past year, consumers have been able to choose among providers and innovative electronic communications services that combine telephony, broadband Internet access and television or video through the Internet (IPTV/ Video on Demand).

7. **Broadband connections have exceeded one million**
   Broadband connections have increased within the past two years from 160,000 to over 1,000,000 (an increase of over 500%). In 2006, Greece ranked first worldwide with an annual increase rate of 215%.

8. **Wireless broadband**
   Fixed Wireless Access (FWA) networks offer significant alternative possibilities for providing broadband services, especially in inaccessible regions. At the same time, licensing exemptions for Wi-Fi networks released broadband users of territorial restrictions, thus contributing in this way to the reduction of the digital gap.

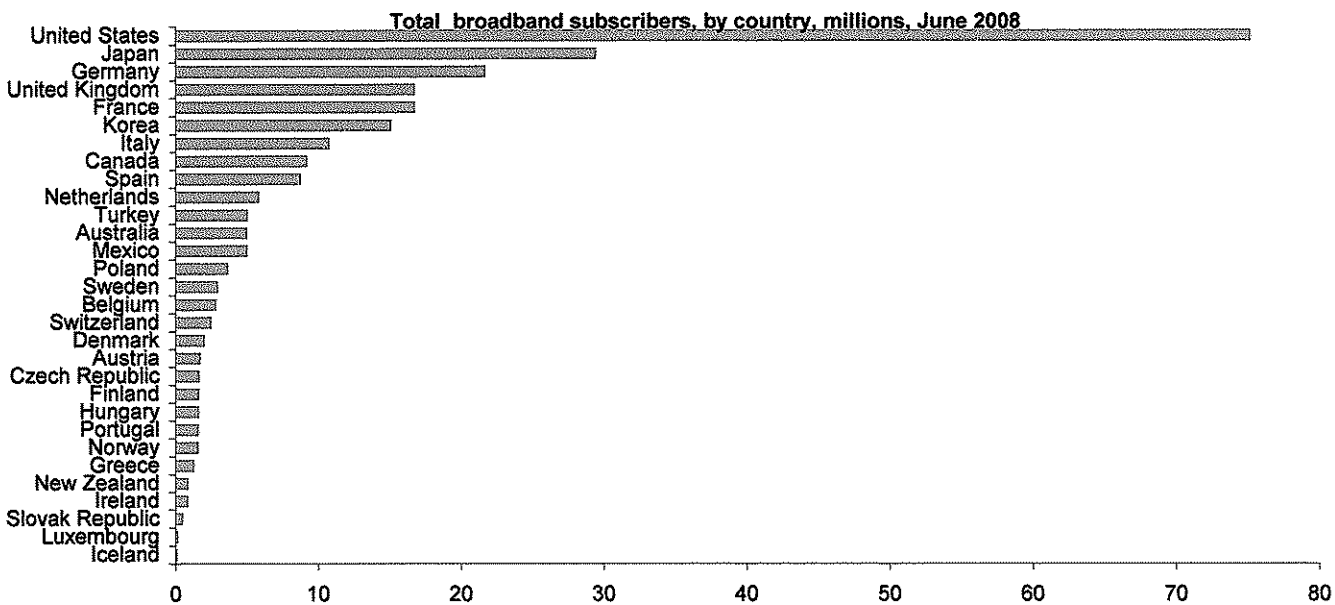
9. **Mobile broadband**
   Third-generation (3G) mobile communications networks have brought about their own revolution as they enable users with high mobility demands, to have broadband Internet access at any given time and from any given place (within the network's zone of coverage).

10. **Increased Investments**
    Almost 4 billion Euros have flowed into the country through the buyouts of telecommunications companies. At the same time, investments in telecommunications infrastructures by alternative operatos are increasing. More specifically, the investments made by alternative operatos during the first two quarters of 2007 surpassed the total number of investments in 2006.

OECD Broadband statistics [oecd.org/sti/ict/broadband]

1c. Total number of broadband subscribers, by country, millions, June 2008

Rank	Broadband subscribers, total,	
30	Iceland	98.361
29	Luxembourg	133.736
28	Slovak Republic	480.375
27	Ireland	832.590
26	New Zealand	853.020
25	Greece	1.245.974
24	Norway	1.554.993
23	Portugal	1.568.247
22	Hungary	1.583.102
21	Finland	1.616.200
20	Czech Republic	1.626.000
19	Austria	1.704.769
18	Denmark	1.996.408
17	Switzerland	2.471.592
16	Belgium	2.789.579
15	Sweden	2.933.014
14	Poland	3.650.000
13	Mexico	4.980.184
12	Australia	4.981.656
11	Turkey	5.012.999
10	Netherlands	5.806.595
9	Spain	8.738.793
8	Canada	9.201.998
7	Italy	10.727.651
6	Korea	15.059.029
5	France	16.700.000
4	United Kingdom	16.710.169
3	Germany	21.618.300
2	Japan	29.341.909
1	United States	75.009.521



Source: OECD

Note: See the OECD broadband portal for information on data sources and notes

OECD Broadband statistics [oecd.org/sti/ict/broadband]

1g. OECD historical broadband penetration rates

	2002-Q2	2002-Q4	2003-Q2	2003-Q4	2004-Q2	2004-Q4	2005-Q2	2005-Q4	2006-Q2	2006-Q4	2007-Q2	2007-Q4	2008-Q2
Australia	1,31	1,84	2,58	3,49	5,19	7,66	10,66	13,60	16,90	18,92	22,21	22,83	23,54
Austria	4,57	5,61	6,48	7,64	8,65	10,59	12,38	14,33	15,66	17,24	18,64	19,59	20,58
Belgium	6,24	8,67	10,23	11,70	14,18	15,54	17,35	18,17	19,21	22,33	23,82	25,74	26,45
Canada	10,25	12,11	13,14	15,06	16,39	17,60	18,97	20,73	21,87	23,55	24,67	26,29	27,89
Czech Republic	0,12	0,17	0,28	0,48	0,75	2,50	4,12	6,35	9,37	10,58	12,16	14,58	15,79
Denmark	6,64	8,25	11,05	13,10	16,90	18,96	21,71	24,92	29,25	31,79	34,33	35,07	36,72
Finland	3,49	5,45	5,34	9,48	10,93	14,92	18,66	22,39	24,87	27,12	28,84	30,71	30,69
France	1,57	2,76	3,97	5,94	7,87	10,46	12,63	15,07	17,57	20,12	22,40	24,61	26,43
Germany	3,20	3,95	4,83	5,59	6,56	8,37	10,24	12,98	15,11	17,10	21,21	23,77	26,25
Greece	**0,00**	**0,02**	**0,02**	**0,10**	**0,23**	**0,47**	**0,84**	**1,41**	**2,69**	**4,59**	**7,07**	**9,15**	**11,20**
Hungary	0,43	0,65	1,15	1,99	2,52	3,57	4,68	6,34	9,73	10,01	11,62	13,56	15,72
Iceland	5,29	8,45	10,82	14,26	15,19	18,20	21,48	26,37	26,51	28,83	29,78	32,18	32,32
Ireland	0,05	0,27	0,39	0,83	1,61	3,32	4,23	6,52	8,75	12,16	14,98	17,62	19,11
Italy	1,19	1,68	2,80	4,13	6,02	8,08	9,70	11,77	13,06	14,24	15,81	17,20	18,22
Japan	3,93	6,13	8,57	10,69	12,67	14,95	16,40	17,62	18,96	20,16	21,26	22,16	22,97
Korea	20,26	21,83	22,89	24,22	24,18	24,82	25,47	25,32	26,44	29,08	29,90	30,46	31,18
Luxembourg	0,61	1,54	2,27	3,46	5,57	9,64	11,38	14,48	17,20	19,72	22,24	26,73	28,29
Mexico	0,16	0,25	0,31	0,42	0,74	1,01	1,67	2,22	2,82	3,56	3,89	4,30	4,71
Netherlands	4,93	7,04	9,07	11,79	15,43	18,96	22,32	25,22	28,80	31,77	33,47	34,92	35,53
New Zealand	1,09	1,61	2,08	2,57	3,48	4,72	6,96	9,12	11,56	13,91	16,34	18,10	20,39
Norway	2,99	4,20	6,15	7,98	11,26	14,81	18,09	21,78	24,41	27,43	30,32	31,22	33,36
Poland	0,15	0,30	0,45	0,78	1,19	2,14	2,19	2,41	5,33	6,92	7,97	8,76	9,57
Portugal	1,48	2,51	3,54	4,81	6,27	7,89	9,71	11,05	12,28	13,45	14,28	14,29	14,82
Slovak Republic	0,01	0,01	0,01	0,35	0,62	0,96	1,61	2,49	4,02	5,08	6,83	7,64	8,90
Spain	2,07	2,98	4,18	5,41	6,46	8,06	9,10	11,51	13,31	15,10	16,98	18,04	19,83
Sweden	6,75	8,16	9,17	10,95	12,34	14,92	16,93	20,70	23,37	26,40	28,89	30,35	32,30
Switzerland	3,83	5,64	9,17	10,51	14,55	17,62	20,20	23,80	26,54	28,69	30,73	30,97	32,70
Turkey	0,02	0,04	0,06	0,28	0,29	0,71	1,20	2,12	2,92	3,80	5,10	5,95	6,79
United Kingdom	1,27	2,32	3,67	5,39	7,36	10,36	13,25	16,32	19,18	21,45	23,73	25,78	27,61
United States	5,49	6,67	7,90	9,53	10,86	12,70	14,16	16,17	17,91	20,27	21,88	23,56	25,02
OECD	3,82	4,84	5,93	7,23	8,48	10,18	11,64	13,39	15,12	16,95	18,60	19,98	21,26

Note: See the OECD broadband portal for data on sources and estimations

Course of Broadband in Greece, 2nd quarter 2008
Hellenic Telecommunications and Post Commision(EETT) , June 2008

Summary

Page 4
The total number of active broadband connections in June 2008 was 1.245.974 (11,2% population penetration) presenting a 61,57% increase since June 2007 and a 23,16% increase since December 2007. The ranking of Greece among the other European countries remains the same (sixth bottom-up).

Page 6
58% of broadband lines are owned by OTE. 12,9% of the total connections is owned by the other providers that use the current OTE infrastructure (APYΣ network) and only 28,6% are LLU connections. The penetration of other technologies is very small (1%)

The original source text(greek) follows in the next three pages

ΕΘΝΙΚΗ ΕΠΙΤΡΟΠΗ ΤΗΛΕΠΙΚΟΙΝΩΝΙΩΝ & ΤΑΧΥΔΡΟΜΕΙΩΝ

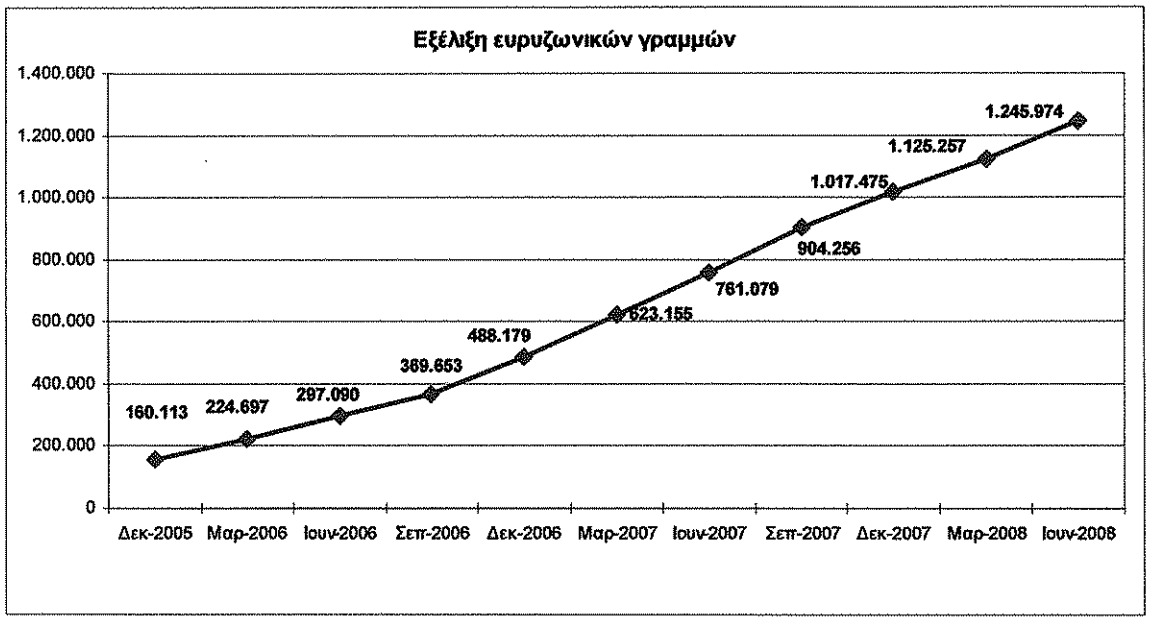
ΠΟΡΕΙΑ ΤΗΣ ΕΥΡΥΖΩΝΙΚΟΤΗΤΑΣ ΣΤΗΝ ΕΛΛΑΔΑ
Β΄ ΤΡΙΜΗΝΟ 2008

ΙΟΥΝΙΟΣ 2008

2. Ευρυζωνική πρόσβαση

Όπως παρουσιάζεται στο παρακάτω διάγραμμα, οι ευρυζωνικές συνδέσεις της χώρας στα μέσα του 2008 έφτασαν τις 1.245.974, σημειώνοντας αύξηση 61,57% σε σχέση με τον Ιούνιο του 2007 και 23,16% σε σχέση με το Δεκέμβριο του 2007.

Διάγραμμα 1. Εξέλιξη των ευρυζωνικών γραμμών στην Ελλάδα



Πηγή: ΕΕΤΤ βάσει στοιχείων αδειοδοτημένων παρόχων)

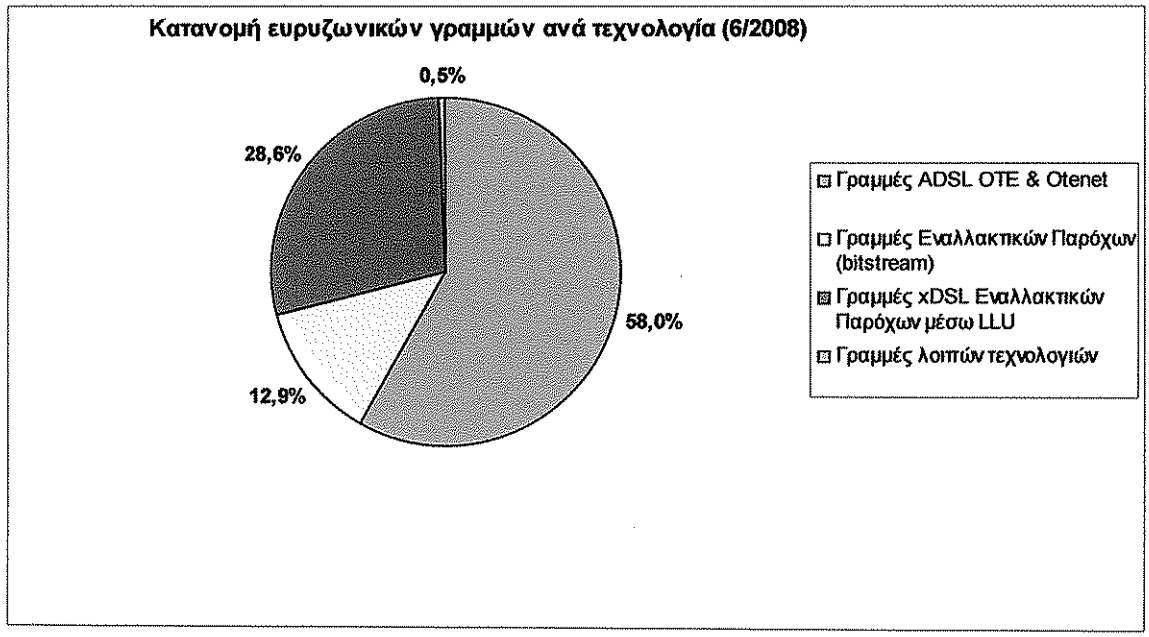
Η νέα αύξηση των ευρυζωνικών γραμμών οδήγησε σε άνοδο της ευρυζωνικής διείσδυσης σε 11,2% έναντι 9,1% στο τέλος του Δεκεμβρίου 2007.
Η νέα αυτή τιμή της ευρυζωνικής διείσδυσης, ακόμα και αν συγκριθεί με τις τελευταίες διαθέσιμες ευρωπαϊκές τιμές του Δεκεμβρίου, δεν αλλάζει την σειρά κατάταξης της Ελλάδας μεταξύ των κρατών μελών της Ε.Ε. (Διάγραμμα 2). Η Ελλάδα εξακολουθεί να παραμένει στην ομάδα των ουραγών, μαζί με τις Σλοβακία, Πολωνία, Ρουμανία και Βουλγαρία.

Το Διάγραμμα 2 παρουσιάζει την ευρυζωνική διείσδυση στα κράτη μέλη της Ε.Ε., ως είχε στις 1/1/2008 (13η Έκθεση της Ευρωπαϊκής Επιτροπής για την πορεία της αγοράς Ηλεκτρονικών Επικοινωνιών στην Ε.Ε.) και την ευρυζωνική διείσδυση στην Ελλάδα, ως είχε στις 1/1/2008 και στις 30/6/2008.

3. Πρόσβαση xDSL

Όπως προκύπτει από τα Διαγράμματα 3 και 4, το ποσοστό των γραμμών πρόσβασης μέσω ADSL μέσω ΑΡΥΣ (χονδρικής ή λιανικής), αν και εξακολουθεί να είναι ο κυρίαρχος τρόπος παροχής ευρυζωνικής πρόσβασης, βαίνει συνεχώς μειούμενο, φτάνοντας τον Ιούνιο 2008 το 71% του συνόλου των γραμμών, έναντι 86,9% τον Ιούνιο 2007.
Σε αντίθεση, η πρόσβαση xDSL μέσω ΑΠΤΒ ακολουθεί συνεχώς αυξανόμενη πορεία και έχει φτάσει το 28,6% των ευρυζωνικών γραμμών (έναντι 12,5% τον Ιούνιο 2007). Παρατηρείται ωστόσο (διάγραμμα 4) ότι η αύξηση των γραμμών πρόσβασης ΑΠΤΒ των Εναλλακτικών παρόχων, γίνεται σε βάρος των γραμμών ΑΡΥΣ (bitstream), γεγονός που καταδεικνύει την στροφή των Εναλλακτικών Παρόχων σε υψηλότερα στάδια επενδύσεων και πολύ λιγότερο σε προϊόντα χονδρικής ευρυζωνικής πρόσβασης.
Η πρόσβαση μέσω λοιπών τεχνολογιών εξακολουθεί να παραμένει σε χαμηλό επίπεδο με ποσοστό κάτω του 1%, γεγονός που καταδεικνύει την απουσία εναλλακτικών δικτύων στη χώρα.

Διάγραμμα 3: Εξέλιξη ευρυζωνικών γραμμών ανά τεχνολογία / τύπο πρόσβασης.



(Πηγή: ΕΕΤΤ βάσει στοιχείων αδειοδοτημένων παρόχων)

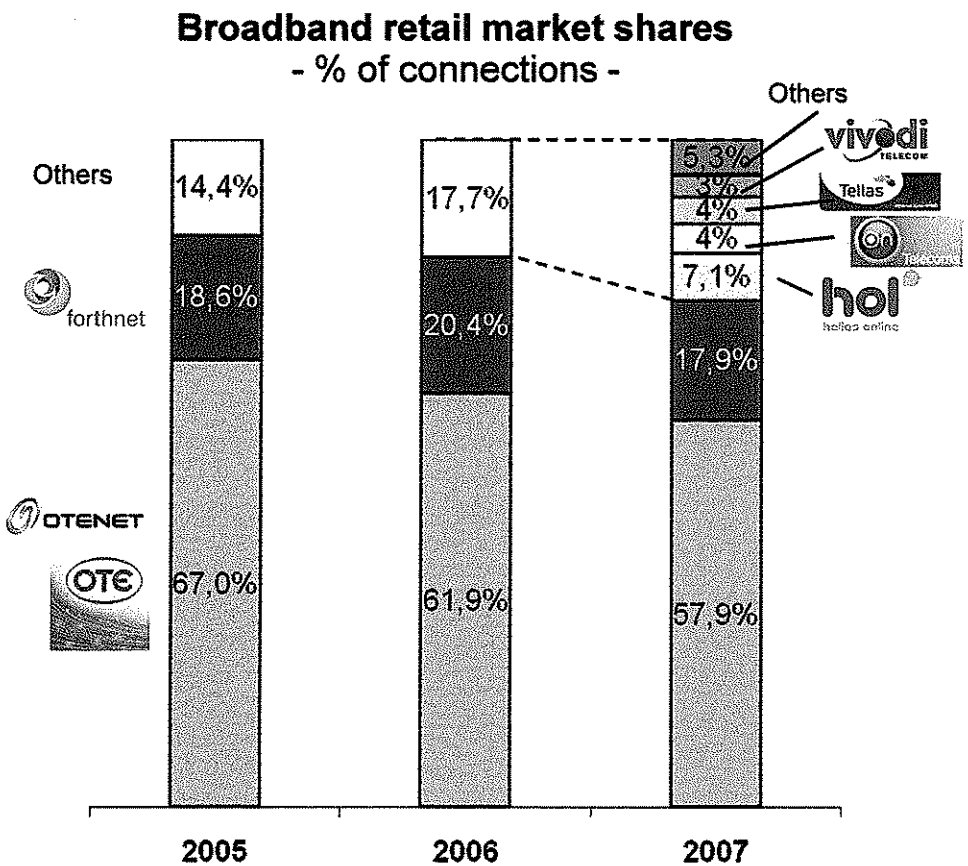
"Developing the Hellenic Ministry of Transport and Communications 5-year broadband strategy for Greece"

Preliminary results on development of strategy for Electronic Communications industry in Greece

Athens
May, 2008

ATKEARNEY PLANNING S.A. Management Consultants

Also in terms of service competition, there is a presence of many medium-small operators



- Incumbent broadband market share although has decreased significantly in the last two years is still among the highest in Europe
- Greek market is still characterized by presence of many alternative operators with limited market share
- The limited financial resources also hinder possibility of operators to more aggressively deploy infrastructure

It's unlikely that alternative operators would develop an extensive FTTx network given the limited market share

Sources: Company Reports, EETT, A.T. Kearney-Planning analysis

7th Six-Month Report of the Observatory for the Greek Information Society regarding broadband development in Greece

Observatory for the Greek Information Society

Summary

The prices of broadband services in Greece have been decreasing for the last four years. For the past 1,5 year the decline was around 16,2% for basic access, 17% for medium access and 22,1% for high access. It is predicted that the prices will converge soon with the average price in EU-15

The original source text(greek) follows in the next three pages

ΠΑΡΑΤΗΡΗΤΗΡΙΟ

για την κοινωνία της πληροφορίας

7η Εξαμηνιαία Αναφορά για την Ευρυζωνικότητα

Ιούλιος 2008

Εξέλιξη Κόστους Ευρυζωνικής Πρόσβασης

Εδώ και τουλάχιστον 1,5 χρόνο οι σχετικές με την ευρυζωνική διαδικτυακή πρόσβαση προϊοντικές προσφορές εντάσσονταν σε τρεις κύριες κατηγορίες. Στην πρώτη κατηγορία εντάσσονται εκείνες οι προσφορές που αφορούν μόνο σε παροχή ευρυζωνικής διαδικτυακής πρόσβασης. Στη δεύτερη κατηγορία εντοπίζονται εκείνες που συνδυάζουν ευρυζωνική σύνδεση και υπηρεσίες σταθερής τηλεφωνίας (double play) ενώ στην τρίτη κατηγορία εντοπίζονται αυτές που συνδυάζουν και υπηρεσίες ψυχαγωγίας, κυρίως τηλεοπτικής. Οι προσφορές της τελευταίας κατηγορίας είναι ακόμη μικρές σε αριθμό και δεν μπορούν να διατεθούν ισότιμα σε όλους τους πελάτες ευρυζωνικών συνδέσεων λόγω ελλείψεων σε σχετικές υποδομές.

Στην παρούσα αναφορά το ενδιαφέρον επικεντρώνεται στην πρώτη κατηγορία προϊοντικών προσφορών για λόγους σύγκρισης στοιχείων με τις προηγούμενες αναφορές. Ακόμη, τα όσα αναφέρονται σε σχέση με τις κόστος ανά kbps πρόσβασης αφορούν στην καταβίβαση (downloading) επί ονομαστικών ταχυτήτων πρόσβασης και το πεδίο εφαρμογής τους είναι οι οικιακοί πελάτες.

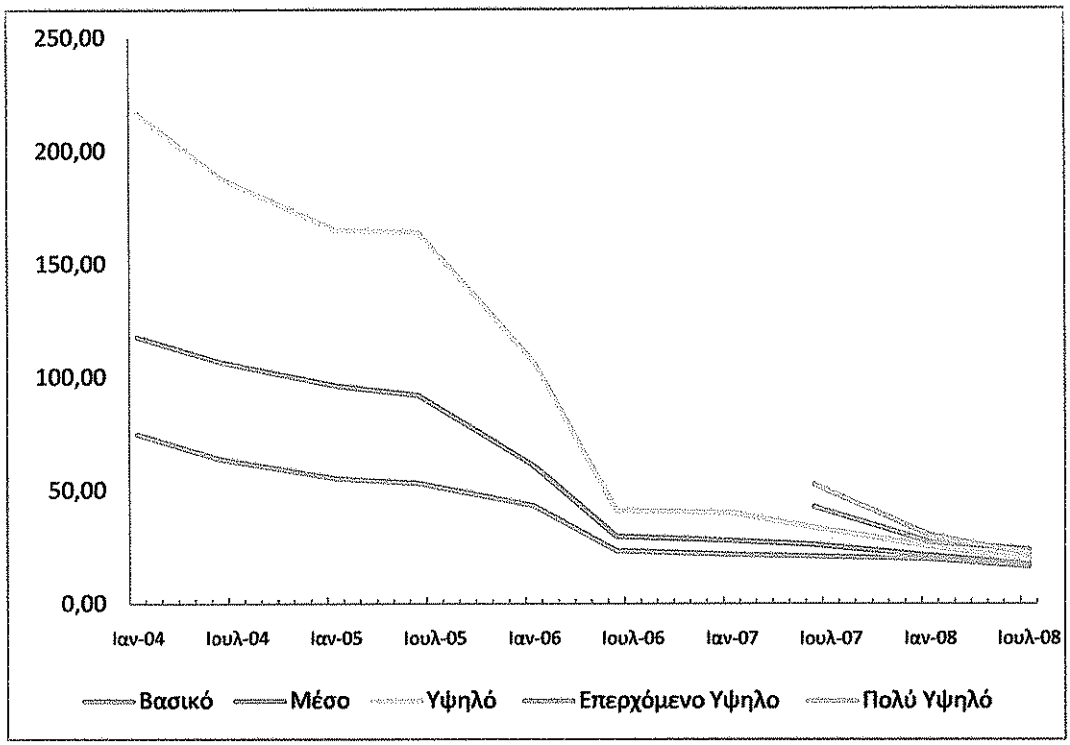
Στο εξάμηνο αναφοράς **συνεχίστηκε, η πτωτική τάση των τιμών**. Η πτωτική τάση είναι μεγαλύτερη σε προσβάσεις υψηλότερης ταχύτητας. Τούτο αποτυπώνεται στο διάγραμμα 6. Με βάση τις μέσες τιμές παρόμοιων προϊοντικών προσφορών διαπιστώνεται ότι οι πτωτικές τάσεις στους αντίστοιχους τύπους πρόσβασης ήταν:

- Περί του 16,2% σε εξαμηνιαία βάση για τη βασική πρόσβαση.
- Περί του 17% σε εξαμηνιαία βάση για τη μέση πρόσβαση.
- Περί του 22,1% σε εξαμηνιαία βάση για την υψηλή πρόσβαση.

Θα πρέπει να σημειωθεί ότι **επιβεβαιώνεται η εκτίμηση του Παρατηρητηρίου στην προηγούμενη εξαμηνιαία αναφορά περί μετακίνησης σε ένα νέο «μπουκέτο» βασικής, μέσης και υψηλής πρόσβασης με υψηλότερες ονομαστικές ταχύτητες** από αυτές που εξετάζονταν καθ' όλη τη διάρκεια του 2007. Συγκεκριμένα, το πακέτο της βασικής πρόσβασης αφορά πλέον στα 1Mbps καταβίβασης, της μέσης πρόσβασης στα 2Mbps καταβίβασης και της υψηλής πρόσβασης στα 4Mbps καταβίβασης δεδομένων.

Ακόμη, **σε πακέτα συνδέσεων υψηλότερης ονομαστικής ταχύτητας καταβίβασης διαπιστώθηκαν εξίσου σημαντικές μειώσεις τιμών**. Ιδιαίτερα ανταγωνιστικό είναι το περιβάλλον στα πακέτα ονομαστικής ταχύτητας έως 24 Mbps όπου το μέσο επίπεδο τιμών μπορεί να χαρακτηριστεί πιο ελκυστικό τιμολογιακά από το αντίστοιχο στα 8Mbps ενώ εκτιμάται ότι σύντομα θα κινηθεί σε ακόμη χαμηλότερα επίπεδα.

Διάγραμμα 6: Εξέλιξη Μέσου Κόστους Ευρυζωνικής Σύνδεσης (Ιανουάριος 2004-Ιούνιος 2008) σε σχετικά μεγέθη



Τα διαθέσιμα στοιχεία προέρχονται από σχετική έρευνα του Παρατηρητηρίου εκτός από τον Ιανουάριο 2006, όπου το μέσο μέγεθος προέρχεται από μετα-ανάλυση δεδομένων από τον ιστότοπο telecompare.gr.

[Πηγή: Παρατηρητήριο για την ΚτΠ]

Τεχνικά από το διάγραμμα 6 συνάγεται ότι στην ερχόμενη περίοδο είναι ιδιαίτερα πιθανό να μετακινηθούμε εκ νέου σε ένα νέο «μπουκέτο» βασικής, μέσης και υψηλής πρόσβασης με υψηλότερες ονομαστικές ταχύτητες κατά μια τάξη μεγέθους από τις υφιστάμενες για κάθε ένα τύπο από τους παραπάνω. Επίσης **από το ίδιο διάγραμμα συνάγεται ότι η εγχώρια αγορά θα συγκλίνει σε βραχυπρόθεσμο ορίζοντα με την ΕΕ-15 σε όρους λιανικού κόστους πρόσβασης.**

Σημειώνεται επίσης, ότι ο ανταγωνισμός μεταξύ των παρόχων για την προσέλκυση νέων πελατών ευρυζωνικών συνδέσεων παρουσιάζει ενδείξεις όξυνσης μετά και την είσοδο προσφορών πακέτων κινητής ευρυζωνικότητας καθώς και σταθερών ευρυζωνικών συνδέσεων σε συνδυαστικά πακέτα από παρόχους κινητής τηλεφωνίας. Πλέον, με δεδομένο τον πλουραλισμό στα προϊοντικά πακέτα αναμένεται η διαμόρφωση δυο ανταγωνιστικών στρατηγικών, στο επίπεδο της τιμής και στο επίπεδο της ποιότητας των προσφερόμενων υπηρεσιών.

FORTHnet Εκτυπώστε την σελίδα

Forthnet 2play

Forthnet 2play:free!

New Feature!

Forthnet 2play

Unlimited local and national phone calls
Unlimited international phone calls
to fixed lines in 40 countries
60 minutes free calls from fixed to mobiles
&
Unlimited broadband ADSL access of up to 24Mbps

for only 39.90/month

With Forthnet 2play you can call :

- for free to **local and national** fixed lines
- for free to fixed lines in 40 **international destinations**
- **60 minutes per month** for free calls fixed to mobiles
- Without time charges, 24/7

With Forthnet 2play you enjoy:

- for free broadband internet **up to 24Mbps** (Dynamic, upload up to 1Mbps).
- With stable monthly fee, **only 39.90€**
- Without changing your current phone number.
- Free equipment and activation fee.
- Free wireless access at Forthnet HotSpot!
- With the possibility of acquiring a second telephone line.
- 24/7 technical support and the quality of Forthnet services.

The service offers to all users everywhere in Greece broadband internet access of up to 4 Mbps speed. Especially, in areas where Forthnet's network is available, the internet access reaches up to 24Mbps without any additional cost and without OTE fixed monthly charges. See coverage of areas, here.

Service is available only for domestic users.

How to apply:

1. **Download** the application form (pdf).
*(Please use the english **SAMPLE** in order to fill. Only Greek application forms are valid.)*

2. Visit the closest to you **Forthnet point of sales** or send your application **by post** at Forthnet, Broadband Services Sales Department, 4 Athidon Str., GR 176 71, Athens

For the application you will also need:
1. a copy of a recent Telephone Bill (OTE) of the line where the Forthnet 2play service will be activated.
2. a copy (2sides) of the ID card of the telephone line owner.

Notes:

1. Prices include VAT 19%.
2. The internet speed is upgraded up to 24Mbps (Dynamic, upload up to 1Mbps) without any charges, when Forthnet's network is available.
3. The offer of free equipment (ADSL modem)and activation fee (34.90€) is valid until 30/11/08.
4. Unlimited national and local phone calls include calls towards OTE phone numbers and alternative telecommunication carriers. Pricelist for international phone calls and mobile telephony networks, you can see **here**.
5. Unlimited international calls apply to all fixed lines in: Andorra, Australia, Austria, Belgium, Boulgaria, Brazil, Canada (fixed lines & mobiles), China, Cyprus, Denmark, Finland, France, Fyrom, Germany, Hong Kong, Iceland, Ireland, Italy, Japan, Liechtenstein, Luxembourg, New Zealand, Netherlands, Norway, Peru, Philippines, Portugal, Romania, Russia, Serbia, Singapore, Spain, Sweden, Switzerland, S.Africa, S.Korea, Taiwan, Turkey, UK, USA (fixed lines & mobiles). For the rest international destinations, charges according to pricelist are applied.

Location: http://www.forthnet.gr/templates/corporateProductsDetails2.aspx?c=10009586
last news:

http://www.ontelecoms.com/on/pricing.jsp?category=on2play&main_category=residential

ON TELECOMS

Pricing

Monthly Fee

Telephony & TV		€27
Internet Plus		€23.9
Telephony & Internet		€32
All in One		€35

Call Charges

Destinations	Telephony & TV	Telephony & Internet	All in One	Internet Plus
Local Calls				
Long distance calls		Free		0,028(€/λεπτό)
International ON15*				
Greek Mobiles		0,17(€/min)		

Activation Fee (one off) €65.(This charge applies to the activation of an active telephone line. The activation fee for a new telephone line is 95€)

Calls are charged per second with a minimum charge of 60".

The call charges of the second line are: 0.028 €/min to local, national and ON15 destinations and 0.17 €/min to greek mobiles

**Australia, Austria, Belgium, Canada, Cyprus, France, Germany, Italy, Netherlands, Russia, Spain, Sweden, Switzerland, UK, USA

All prices are VAT included.

http://www.tellas.gr/default.asp?siteID=1&pageID=4&langID=1#

Tellas Double Play Unlimited

Απεριόριστη τηλεφωνία & απεριόριστο ADSL χωρίς πάγιο ΟΤΕ
μόνο με €19.90/μήνα* για έξι ολόκληρους μήνες.

- **Απεριόριστο ADSL Internet έως 24 Mbps/1Mbps.**
- **Απεριόριστες αστικές & υπεραστικές κλήσεις.**
- **Απεριόριστες διεθνείς κλήσεις σε σταθερά τηλέφωνα 38 χωρών**.**
- **60′ λεπτά δωρεάν το μήνα προς όλα τα ελληνικά κινητά.**

και ακόμα

- Δωρεάν ADSL router Ethernet-USB ή ασύρματο WiFi με ιδιαίτερα χαμηλή χρέωση.
- Τηλεφωνική γραμμή PSTN και ADSL χωρίς πάγιο ΟΤΕ.
- Διατήρηση υπάρχοντα τηλεφωνικού αριθμού
- Δωρεάν Ενεργοποίηση έως και 30/01/2009

	Tellas Double Play Unlimited
Μηνιαία Συνδρομή	€ 19,90*
Αστικές κλήσεις	Δωρεάν
Υπεραστικές κλήσεις	Δωρεάν
Κλήσεις προς κινητά Χρέωση μετά τον δωρεάν χρόνο ομιλίας	60′ Δωρεάν
Cosmote	€ 0,165
Vodafone	€ 0,165
Wind	€ 0,179
Διεθνείς κλήσεις σε σταθερά 38 χωρών* (Ζώνη Α)	Δωρεάν

* 1. Η χρέωση ισχύει για **6 ολόκληρους μήνες** από την ενεργοποίηση της σύνδεσης και για όλες τις νέες **αιτήσεις Tellas Double Play Unlimited** που θα πραγματοποιηθούν έως και τις 17 Ιανουαρίου 2009. Μετά τους πρώτους 6 μήνες η χρέωση είναι 39,90/μήνα σύμφωνα με τον τιμοκατάλογο της υπηρεσίας Tellas Double Play Unlimited.

** 2. Οι δωρεάν απεριόριστες διεθνείς κλήσεις παρέχονται για τα σταθερά δίκτυα των παρακάτω χωρών:
Ηνωμένο Βασίλειο, Γαλλία, Γερμανία, Αυστραλία, Καναδάς, Βέλγιο, Ισπανία, Ιταλία, ΗΠΑ, Αυστρία, Ολλανδία, Κύπρος, Ελβετία, Χονγκ Κονγκ, Ιαπωνία, Σουηδία, Σιγκαπούρη, Δανία, Ιρλανδία, Νορβηγία, Πορτογαλία, Σαν Μαρίνο, Ανδόρα, Λουξεμβούργο, Ισλανδία, Λιχτενστάιν, Βουλγαρία, Τουρκία, Σερβία, Φιλιππίνες, Ταϊβάν, Φινλανδία, ΠΓΔΜ (Fyrom), Ρουμανία, Νέα Ζηλανδία, Βατικανό, Νότια Κορέα, Πουέρτο Ρίκο.

3. Η καταμέτρηση του δωρεάν χρόνου προς κινητά (ελληνικών δικτύων) καθώς επίσης και η χρέωσή τους μετά τα δωρεάν λεπτά γίνεται ανά δευτερόλεπτο με ελάχιστη χρέωση το 1 λεπτό

4. Ο εξοπλισμός χρεώνεται μόνο για τους πρώτους 12 μήνες του συμβολαίου. Μετά περνάει στην κατοχή του πελάτη

(The cost for Tellas double play is 19.90€ per month for the first 6 months. After the first six months the cost is 39,90€. It offers , 24Mbps internet, unlimited Local Calls and Long distance calls, inlimited international calls to 38 countries and one hour free talk time to mobile phones)

http://www.vivodi.gr/site/content.php?artid=440

TELEFONET DOUBLE PLAY
Telefonet

Πόσα πάγια πληρώνατε έως σήμερα και πόσους λογαριασμούς σε διαφορετικές εταιρείες;

Πόσο κόστιζε κάθε τηλεφωνική σας κλήση;

Σκεφτήκατε ποτέ να διακόψετε την σταθερή τηλεφωνική σας γραμμή;

Ήρθε η ώρα να αλλάξετε γραμμή χωρίς να αλλάξετε τον αριθμό σας, με την υπηρεσία **Telefonet** της **Vivodi Telecom**.

Ξεχάστε οριστικά το πάγιο που πληρώνατε κάθε μήνα και ελάτε με τον αριθμό σας στο ιδιόκτητο τηλεπικοινωνιακό δίκτυο της Vivodi εξασφαλίζοντας :

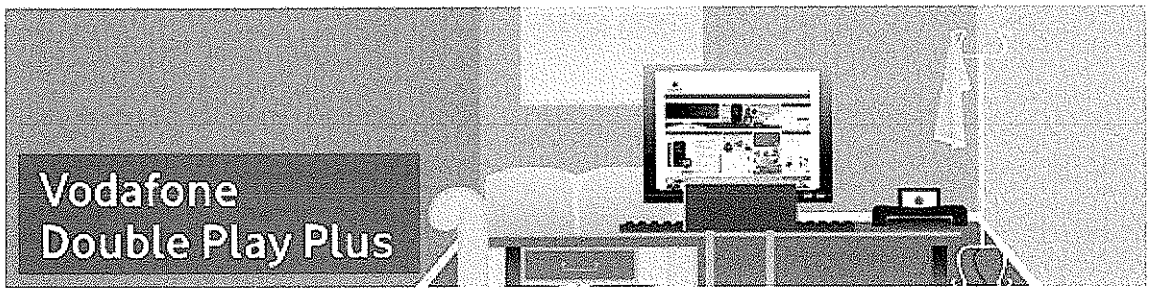
- Ένα και μόνο μηνιαίο λογαριασμό για τις υπηρεσίες σταθερής τηλεφωνίας και Internet
- **2 (δύο)** τηλεφωνικές γραμμές **χωρίς επιπλέον χρέωση**
- Δωρεάν κλήσεις προς όλα τα σταθερά τηλέφωνα και 21 Διεθνείς προορισμούς
- Δωρεάν 24ωρη σύνδεση στο Internet (ADSL), χωρίς χρονοχρέωση & περιορισμούς στη διακίνηση δεδομένων
- **Δωρεάν ψηφιακές ευκολίες** όπως απόκρυψη/αναγνώριση κλήσης, προσωπικό τηλεφωνητή με επιλεγόμενη προώθηση μηνυμάτων και στο e-mail σας, αναμονή κλήσης κ.α
- **Δωρεάν χρήση εξοπλισμού**

Καλέστε στο 13880 και συνδεθείτε σήμερα!

Vivodi Telecom
Τώρα, έχεις τη δική σου γραμμή!

(The cost for double play in Vivodi is € 32.90 , 24Mbps internet, unlimited Local Calls and Long distance calls

http://www.vodafone.gr/portal/client/cms/viewCmsPage.action?pageId=2453



Thanks to Vodafone Double Play Plus you can be anywhere without leaving your home!

Vodafone Double Play Plus, offers you the ideal combination of ADSL Internet at speeds up to 24 Mbps and fixed telephone number with 1200 inclusive minutes to call Greece, abroad*, as well as to Vodafone mobile numbers. For only € 35/month, with no additional OTE monthly access fee.

Vodafone Double Play Plus with no additional OTE monthly access fee, offers you:

- Unlimited ADSL at speeds up to 24 Mbps (Downloading, up to 1Mbps uploading)*
- Fixed telephone number (new* or preserving your old number)
- 1000' to fixed numbers (national & international**)
- 200' to Vodafone subscribers
- No OTE access fees
- For only € 35/month

I wish to be informed about Vodafone Double Play Plus

Vodafone Double Play Plus voice service charges

Check ADSL availability

* In cooperation with a broadband service provider. Service available in areas covered by provider's own network
** 17 selected international destinations: Australia, Austria, Belgium, Canada, Cyprus, Denmark, France, Germany, Ireland, Italy, New Zealand, Netherlands, Portugal, Spain, Sweden, United Kingdom, U.S.A.

How can I get it?

1. Check online for ADSL availability in your area, or by calling 13830. Alternatively, you can visit a Vodafone store.
2. Visit a Vodafone store to fill the application, based on network availability in your area.

Monthly bill of voice services includes special mobile usage tax.
All prices include VAT 19%.

http://english.oteshop.gr/page_content.asp?wid=456&hop=h&scid=139
http://english.oteshop.gr/page_content.asp?wid=456&hop=h&scid=250

OTE

In two simple steps you can make conn-x the way you want to:

ΒΗΜΑ 1 **Choose the access speed that best suits you**

conn-x access speed

- conn-x 1024/ 256 Kbps with OnDSL Home Unlimited Duration

  Monthly Fee € 16,5

- conn-x 2048 /256 Kbps with OnDSL Home Unlimited Duration

  Monthly Fee € 19,5

- conn-x 4096 /256 Kbps with OnDSL Home Unlimited Duration

  Monthly Fee € 22,5

- conn-x 8192/ 384 Kbps with OnDSL Home Unlimited Duration

  Monthly Fee € 26,9

- (•) conn-x 24576/ 1024 Kbps με OnDSL Home Αορίστου

  Monthly Fee € 29,9

next

In three easy steps you can make conn-x TALK the way you want it

ΒΗΜΑ
3

Choose the unlimited call zone that best suits you. Additionally, select a
Flat Rate Prepaid Packet for Residential Customers plan

✓ Weekdays Nights (20:00 - 08:00)
› Unlimited calls
›All night

✓ Every Day, All Day 24/7
› Unlimited calls (through all fixed network)
›All night

✓Weekdays Nights (20:00 - 08:00) & Weekends
› Unlimited Calls (through all fixed network)
›All Night and all Weekend

unlimited calls zone & Prepaid Packets

conn-x TALK unlimited calls zone

- 24/ 7 unlimited local & domestic-long distance calls Zone all day, every day — € 14,9 /month
- Weekdays & Weekend unlimited local & domestic-long distance calls Zone from 20:00 to 08:00 — € 6,5 /month

conn-x TALK Flat Rate
Prepaid Packets

- OTE 120 — € 3,57 /month
- OTE 240 — € 6,95 /month

http://www.hol.gr/default.asp?pID=23&ct=3&itmID=50

hol double-play

Απεριόριστο ADSL Internet και απεριόριστη σταθερή τηλεφωνία
προς όλους, με 39,90 € /μήνα, χωρίς πάγιο ΟΤΕ

Χαρακτηριστικά

- Απεριόριστο ADSL Internet με ταχύτητα 24 Mbps*, χωρίς χρονοχρέωση ή ογκοχρέωση
- Απεριόριστες αστικές και υπεραστικές κλήσεις
- 60' δωρεάν κάθε μήνα για εθνικές κλήσεις προς όλα τα κινητά
- Απεριόριστες διεθνείς κλήσεις σε σταθερά σε 26 δημοφιλείς προορισμούς
- Διατήρηση του τηλεφωνικού σας αριθμού
- Δωρεάν φορητότητα επιπλέον αριθμών
- Δωρεάν Ψηφιακές Ευκολίες
- Online παρακολούθηση του λογαριασμού σας μέσω του myholaccount
- Προσωπικό e-mail της μορφής user@hol.gr με 1GB χώρο
- Παροχή δωρεάν WiFi εξοπλισμού με δυνατότητες:
  - Ενσύρματης σύνδεσης μέχρι και 4 υπολογιστών (με Ethernet)
  - Ασύρματης σύνδεσης

- Δωρεάν Τέλος ενεργοποίησης (για νέες αιτήσεις έως 31/01/2009)

Σημείωση: Η υπηρεσία απευθύνεται μόνο σε οικιακούς πελάτες.

Επιπλέον δυνατότητες

- Προστασία του υπολογιστή σας από ιούς με τις υπηρεσίες hol pc security, μόνο από € 2,5 /μήνα και τον 1ο μήνα δωρεάν.
- Στατική IP διεύθυνση (Static IP)

Σε περίπτωση που προσωρινά το δίκτυο της hellas online δεν έχει διαθεσιμότητα στην περιοχή σας, μπορείτε να επωφεληθείτε από τα μοναδικά προνόμια της υπηρεσίας hol double-play με:

- ADSL σύνδεση στο internet μέσω δικτύου ΟΤΕ με ταχύτητα 4Mbps
- Απεριόριστες αστικές και υπεραστικές κλήσεις
- Απεριόριστες διεθνείς κλήσεις σε σταθερά σε 26 δημοφιλείς προορισμούς
- 60' δωρεάν κάθε μήνα για κλήσεις προς όλα τα εθνικά κινητά
- Άμεση μεταφορά στο δίκτυο της hellas online μόλις υπάρξει κάλυψη, χωρίς χρέωση

Hol double play coste 39,90€ per month. It offers 24Mbps internet, unlimited Local Calls and Long distance calls, inlimited international calls to 38 countries and one hour free talk time to mobile phones)

Broadband Prime

Thursday, October 30, 2008

Greece's Telecom Market: A Reality Check (part I)

The Greek telecommunications market was liberated by EETT , the National Regulatory Authority in 2001 . Strong optimism on market's prospects and the stock market prosperity of the time led many (far more than the local market could sustain) entrepreneurs to try their chances in telecommunications. Two years later, in 2003 the rumor had it that the time was up for the weaker (in a very subjective interpretation of the term) telecom operators to withdraw and clear the field for those with better business models and deeper pockets. And in fact, in 2003 three minor operators shutdown operations and anxiety for the next day inspired local press and marketing plans. Next year, the anticipation for a market clean-up remained high, yet, "expectations" didn't materialize. And so happen the years after.

Since then, plenty of water ran under the bridge to get us where we are today. Recent market developments are truly significant and radically change the industry landscape. Year 2008 might eventually mark the greatest changes in the market since 2001. At least so far as it has been a full and exciting year of thunderous operations shutdown, bankruptcies, mergers and the advent of a new comer. This post is the first of a series of short reviews to elaborate on market structure changes in Greek telecommunications industry. Opinions and interpretations expressed here are my own alone. I'd welcome any comment or disagreement (or truth re-instament!) from you that would complement this and/or future posts.

Market

Exits

Teledome was a strong telephony operator although relations with OTE never seemed to work out smoothly. OTE has

blocked in the past the electronic circuits of the company due to overdue payments and only with EETT's intervention did the re-instatement of the circuits become possible. In July 2007 Int racom Holdings had initially agreed to buy 100% shares of Teledome to merge its operations with Hellas Online and Unibrain. In November of the same year these plans were abandoned. Teledome was then preparing for an IPO. Early in 2008 OTE has once again stopped circuit services to Teledome. This time it was fo good and the company filled some time later for bankruptcy (chapter 99 of law 3588/07 - similar to the US' Chapter 11). The debt of the company is estimated at around 20M euros the great majority of which is owned to OTE.

Lannet has been one of the most successful competitors to OTE in telephony services. Very soon, it lined up at the top of call minutes volume and revenues (at the great times of selection/preselection services). In recent years it acquired Columbia Telecom , the most successful VNO in Greece and merged with Telepassport, another operator with high telephony rankings. Especially the acquisition of Columbia marked a significant strategic advantage as in the long-term all customers of the acquired company could be taken from competition and transfered to Lannet's network. However, Lannet has never performed well in broadband neither in unbundling business. Earlier this year OTE shutdown around 90% of the circuits that the company leased and hasn't put them in operation ever since. October 30th (that is today), Lannet's board of directors is in session to evaluate future actions but from the meeting's agenda it is evident that efforts currently concentrate on saving as much financial assets of the company as possible without considering operations issues.

Altec Telecoms was the greatest bust of the year for many reasons. First, it was part of a well connected Group of Companies with almost two decades of presence in IT and Telecommunications industry (and Media earlier this decade). Second, the company was about to implement an ambitious marketing plan, high rank senior executives have been hired from the competition and according to the company's executives plans to secure additional funding were closing to a successful end. Third, Altec Telecoms served zone 1 of " SYZEFXIS " project. "SYZEFXIS" is a project of Greek Ministry of the Interior, Public Administration and Decentralization, which aims at the development and updating of Public Sector's telecom infrastructure. It's about a core and access network for the Public Sector's organizations aiming to satisfy all their needs for electronic communication. Zone 1 was considered *le fillet* of the project covering all major governmental buildings and services in the greater Athens metropolitan area. Altec Telecoms filled for bankruptcy on the 17th of October . This enabled runner-up (Hellas Online) for zone 1 of SYZEFXIS project to take in charge. (Note: after the circuits freeze by OTE and until the 17th of October fixed telephony and broadband services in ALL ministries and administration authorities was literally a joke! Public servants can now again pick up their handset and get a dial tone!).

Posted by Costas Troulos ShareThisShareThis
Labels: Market Review, Telecommunications in Greece

Focus Double - Triple Play

Focus – Bari research, March 2008

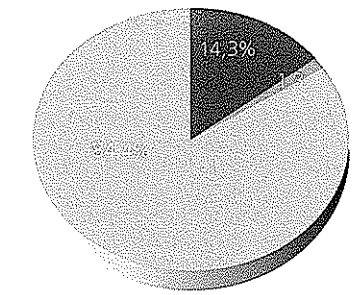
Summary

The dynamics of double – triplay play market in Greece is high. The research is based on a 5.381 population sample from all over Greece. 81,9 % of the participants own a fixed-line phone and 34,6% have an Internet subscription to a service provider, half of whom have a double-play or triple-play connection. From the questioned population, 14,3% have a double-play connection, while only 1,3% have a triple-play connection. The main reason for acquiring a double-play or triple-play connection is low cost of the service (83,6%), the high-speed internet connection(51,4%) and the independence from OTE(32,4%).

For new technologies to cover the whole Greek dominion, it is estimated that an investment of €3 billion to €5 billion must be performed.

The original source text(greek) follows in the next four pages

Δυναμική η αγορά double - triple play στην Ελλάδα



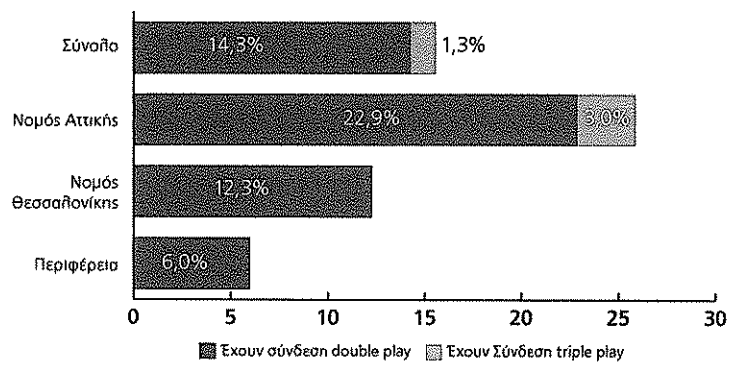
Διάγραμμα 5. Κατοχή Double - Triple Play, Πηγή: Focus Bari, 3-6/2008

υπηρεσίας που είναι χρήσιμη για τους πολίτες και θεωρείται περίπου πρώτης ανάγκης στις υπόλοιπες προηγμένες χώρες. Η έκδοση RUO αποτελεί θετικό βήμα προόδου. Για να μη μείνει όμως γράμμα κενό περιεχομένου, πρέπει να διασφαλιστεί η ορθή εφαρμογή του και η διαρκής αναθεώρησή του με βάση την εμπειρία που αποκτάται από τη λειτουργία της αγοράς. Αναφορικά με τα δικαιώματα διέλευσης είναι επιτακτική ανάγκη για επίσπευση των διαδικασιών θέσπισης της δευτερογενούς νομοθεσίας με στόχο την επιτάχυνση των επενδύσεων σε δίκτυα νέας γενιάς Next Generation

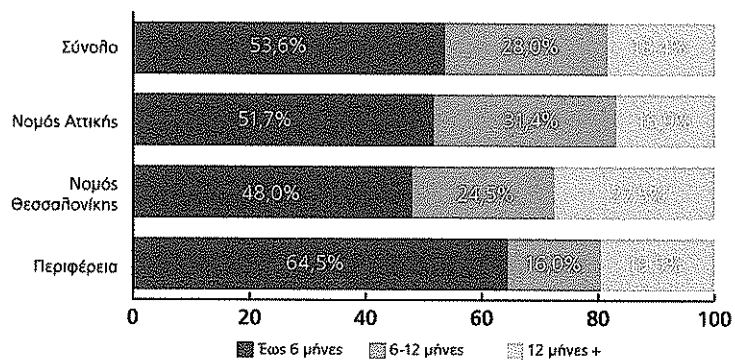
> Αναφορικά με τα δικαιώματα διέλευσης είναι επιτακτική ανάγκη για επίσπευση των διαδικασιών θέσπισης της δευτερογενούς νομοθεσίας

Networks (NGNs) - ορθολογική προσέγγιση αναφορικά με τις σχετικές χρεώσεις που θα προκύψουν.

Η πρόκληση των δικτύων νέας γενιάς είναι μπροστά. Η Ευρωπαϊκή Ένωση προκειμένου να αποκτήσει δίκτυα νέας γενιάς θα πρέπει να επενδύσει πάνω από €300 δις. Η Ελλάδα για να καλύψει το μεγαλύτερο μέρος της ηπειρωτικής και νησιωτικής χώρας πρέπει να επενδύσει από €3 δις έως €5 δις. Όπως τα δίκτυα κινητής τηλεφωνίας λειτούργησαν ως μοχλός ανάπτυξης στο παρελθόν, πρέπει να δοθεί η ευκαιρία στα δίκτυα επόμενης γενιάς (NGNs) να λειτουργήσουν ως καταλύτης για την οικονομική ανάπτυξη και την καινοτομία.



Διάγραμμα 6. Κατοχή Double - Triple Play ανά γεωγραφική περιοχή, Πηγή: Focus Bari, 2008

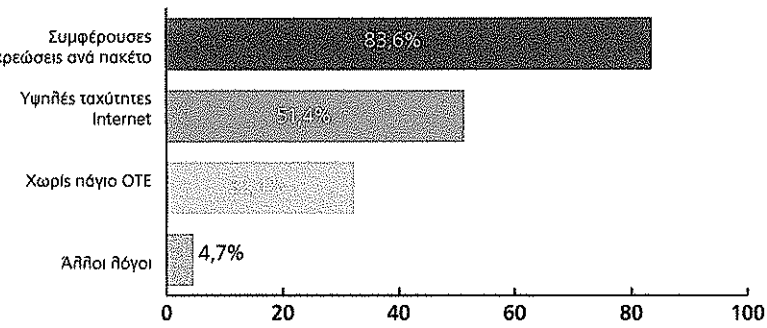


Διάγραμμα 7. Χρόνος κατοχής Double - Triple Play ανά γεωγραφική περιοχή, Πηγή: Focus Bari, 2008

FOCUS BARI

Δυναμική η αγορά double - triple play στην Ελλάδα

Βασικός λόγος για την απόκτηση ενός τέτοιου πακέτου είναι οι συμφέρουσες χρεώσεις αλλά και οι υψηλές ταχύτητες στο Internet

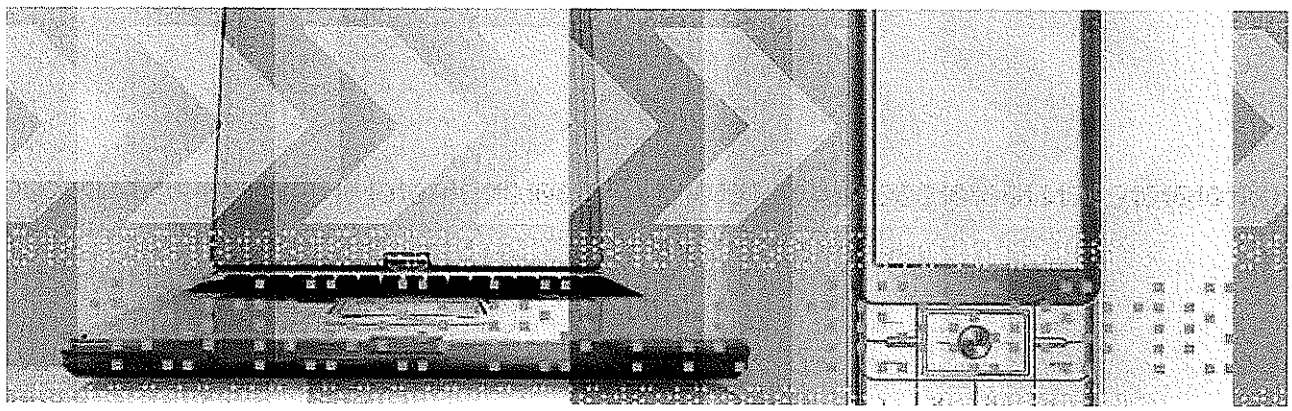


Διάγραμμα 8. Λόγοι απόκτησης σύνδεσης Double - Triple Play, Πηγή: Focus Bari, 2008

Ενθαρρυντικό για την πορεία, είναι το γεγονός ότι όσοι έχουν δοκιμάσει κάποια νέα υπηρεσία double - triple play σε μεγάλο ποσοστό την έχουν διατηρήσει για διάστημα πάνω από 12 μήνες, παρά το γεγονός ότι τα πρόσφατα προβλήματα των εταιριών του χώρου έχουν αποθαρρύνει και δυσκολέψει αρκετούς καταναλωτές στη χρήση συνδυαστικών τηλεπικοινωνιακών πακέτων. Όπως δείχνουν τα στοιχεία της Focus Bari, οι καταναλωτές ανταποκρίνονται θετικά στο κίνητρο του χαμηλού κόστους, ωστόσο χρειάζεται να δοθούν και άλλα κίνητρα από την πλευρά των service providers που θα τόνωναν ακόμη περισσότερο τη χρήση.

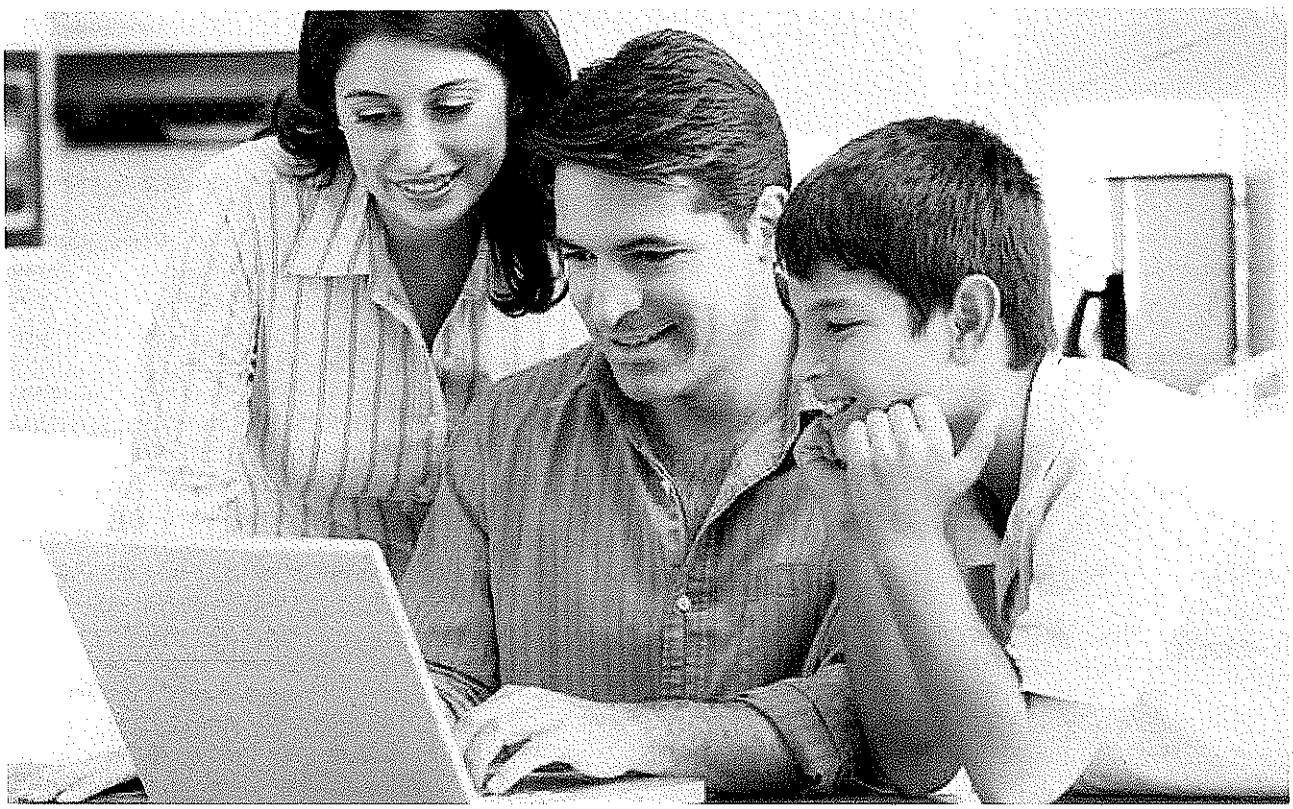
Σημείωση έρευνας

Η νέα συνδρομητική έρευνα της Focus Bari που εστιάζεται στην παρακολούθηση της εξέλιξης της ραγδαία αναπτυσσόμενης αγοράς των τηλεπικοινωνιών και των πακέτων Double Triple Play, παρουσιάστηκε στις αρχές Μαρτίου 2008 και αποτελεί ένα value for money συνεχές ερευνητικό εργαλείο που βοηθά το συνδρομητή/ χρήστη της έρευνας να εντοπίζει έγκαιρα ευκαιρίες, αλλά και απειλές και να αναδιαμορφώνει πλάνα και κινήσεις σύμφωνα με τις εξελισσόμενες τάσεις και τις συμπεριφορές του καταναλωτή. Η εξέλιξη των βασικών δεικτών παρακολούθησης της ανάπτυξης του Double - Triple Play και των βασικών "παικτών" της αγοράς εξάγονται από συνεχή ποσοτική μέτρηση σε Ετήσιο Πανελλαδικό δείγμα 20.000 καταναλωτών. Το νέο αυτό συνδρομητικό προϊόν υποστηρίζεται από ποιοτική έρευνα σε βάθος, η οποία διεξάγεται ετήσια. Στο βασικό πακέτο συνδρομής περιλαμβάνονται 12 μηνιαία report και 4 αναλυτικά τριμηνιαία, ενώ επιπλέον επιλογές για τους συνδρομητές αποτελούν η απόκτηση εξειδικευμένου λογισμικού για tailor - made αναλύσεις, καθώς και η δυνατότητα προσθήκης extra ερωτήσεων που δε συμπεριλαμβάνονται ήδη στην έρευνα.



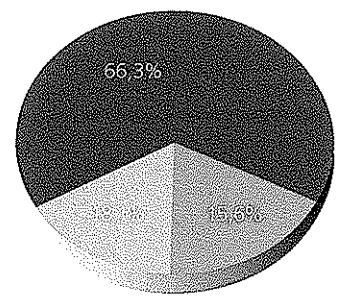
FOCUS BARI

Δυναμική η αγορά double - triple play

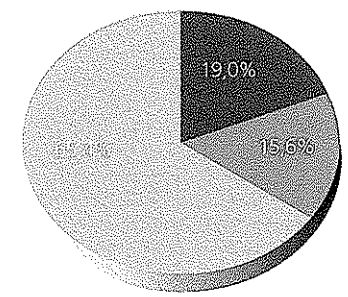


Τις προτιμήσεις των καταναλωτών έναντι των υπηρεσιών double - triple play, παρουσιάζει η εταιρία ερευνών Focus Bari. Σύμφωνα με τα αποτελέσματα της έρευνας που πραγματοποιήθηκε κατά το διάστημα 18 Μαρτίου - 23 Ιουνίου 2008, με τη συμμετοχή 5.381 ατόμων, ανδρών και γυναικών ηλικίας 13 - 70 ετών, στις περιοχές Αττικής, Θεσσαλονίκης, Ηπειρωτικής Ελλάδας και Κρήτης. Για την περιφέρεια η κάλυψη περιλαμβάνει την πρωτεύουσα, τα αστικά κέντρα με πληθυσμό > 10.000 κατοίκους και τα ημιαστικά/ αγροτικά κέντρα σε ακτίνα 25 χλμ. από αυτά. Σύμφωνα με την έρευνα, η κατοχή σταθερού τηλεφώνου σε πανελλαδικό επίπεδο είναι 81,9%, ενώ η κατοχή οικιακής σύνδεσης στο Διαδίκτυο με συνδρομή σε Service Provider είναι 34,6%, Διάγραμμα 1 & 2.

Από τους κατόχους σταθερού τηλεφώνου, ένας στους πέντε έχουν Double-Triple Play ενώ από τους κατόχους οικιακής σύνδεσης Internet με συνδρομή σε Service Provider σχεδόν οι μισοί είναι με σύνδεση Double-Triple Play γεγονός που δείχνει, ότι η νέα υπηρεσία προσέλκυσε καταρχήν νοικοκυριά με ενδιαφέρον για το Internet. Συνολικά, κατοχή της υπηρεσίας Double-Triple Play δηλώνει το 15,6%



Διάγραμμα 1. Οικιακή Σύνδεση με Σταθερό τηλέφωνο: 81,9%, Πηγή: Focus Bari, 2008



Διάγραμμα 2. Οικιακή Σύνδεση Internet με συνδρομή σε Service Provider: 34,6%, Πηγή: Focus Bari, 2008

στην Ελλάδα

- η αναλογία αυτή είναι σημαντικά υψηλότερη στο Νομό Αττικής, Διάγραμμα 3 & 4. Η πλειοψηφία έχει την υπηρεσία Double Play (πακέτο σταθερής τηλεφωνίας και internet), ενώ το Triple Play (σταθερή τηλεφωνία/ Internet/ IPTV) με περιορισμένη μέχρι στιγμής παρουσία, Διάγραμμα 5, εμφανίζει μικρή αναλογία και περιορίζεται στο Νομό Αττικής, Διάγραμμα 6. Ενδεικτικό της δυναμικής που παρουσιάζει η συγκεκριμένη αγορά είναι πως πάνω από τους μισούς κατόχους της υπηρεσίας δηλώνουν πως την απέκτησαν μέσα στους τελευταίους 6 μήνες, Διάγραμμα 7, τάση που είναι πολύ πιο έντονη στην Περιφέρεια. Βασικός λόγος για την απόκτηση ενός τέτοιου πακέτου είναι οι συμφέρουσες χρεώσεις, αλλά και οι υψηλές ταχύτητες στο Internet, Διάγραμμα 8.

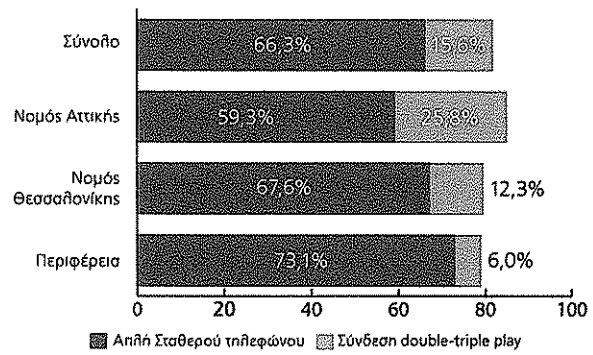
Κίνητρα για τη χρήση

Υπάρχει ακόμη πολύς δρόμος για την προσέλκυση καταναλωτών στις υπηρεσίες double - triple play, όπως φαίνεται από τα αποτελέσματα της Focus Bari. Συγκεκριμένα πανελλαδικά το 84,4% δεν έχει αντίστοιχες υπηρεσίες και triple play έχει μόλις το 1,3%. Μάλιστα, η περιφέρεια που έχει περισσότερο ανάγκη τις νέες τεχνολογίες, δείχνει αδύναμη να τις υιοθετήσει και να ακολουθήσει το ρεύμα των σύγχρονων λύσεων επικοινωνίας. Έπειτα από επτά χρόνια απελευθέρωσης της συγκεκριμένης αγοράς και κατόπιν των σφοδρών επισημάνσεων της Ευρωπαϊκής Επιτροπής στη σχετική έκθεση για τις ηλεκτρονικές επικοινωνίες, οι ελλείψεις στο δευτερογενές νομοθετικό πλαίσιο παραμένουν. Όπως επίσης, παραμένουν οι πολύπλοκες και οι ανομοιογενείς διαδικασίες χορήγησης δικαιωμάτων διέλευσης καθώς και η αναποτελεσματική διαδικασία προσφυγών και εκδίκασης εκκρεμών δικαστικών υποθέσεων, εμποδίζοντας τη σωστή λειτουργία της αγοράς.

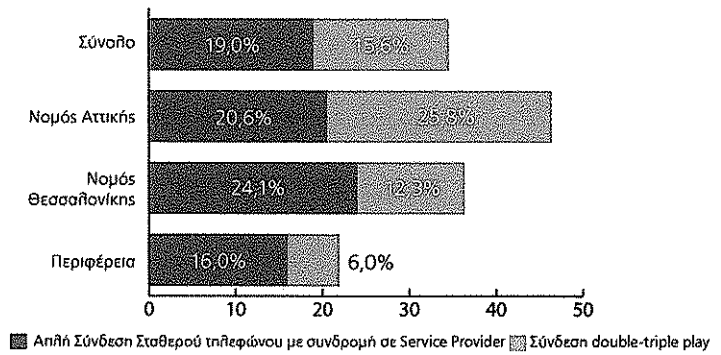
Είναι αρκετοί εκείνοι που κάνουν λόγο για το "ελληνικό παράδοξο", μιας που εκκρεμεί περισσότερο από ένα χρόνο η υπογραφή της κοινής υπουργικής απόφασης για τα δικαιώματα διέλευσης, ενώ πρόσφατα τέθηκε σε ισχύ ο κανονισμός συνεγκατάστασης. Παρά το γεγονός, ότι έχουν παρέλθει πάνω από τρία χρόνια από την έναρξη ισχύος του νόμου, δεν έχει εκδοθεί ακόμα η κοινή υπουργική απόφαση, ούτε είναι επισήμως γνωστό σε ποιο στάδιο βρίσκεται η εν λόγω διαδικασία. Η ΕΕΤΤ έχει ολοκληρώσει τις αντίστοιχες δημόσιες διαβουλεύσεις τόσο σχετικά με τους κανονισμούς για τα τέλη χρήσης και τα τέλη διέλευσης, η έκδοση των οποίων εμπίπτει στην αρμοδιότητά της, όσο και σχετικά με την εισήγηση προς τον υπουργό Μεταφορών και Επικοινωνιών των ειδικών διαδικασιών για την παραχώρηση δικαιωμάτων διέλευσης.

> Η κατοχή σταθερού τηλεφώνου σε πανελλαδικό επίπεδο είναι 81,9%, ενώ η κατοχή οικιακής σύνδεσης στο Διαδίκτυο με συνδρομή σε Service Provider είναι 34,6%

Για τους τοπικούς παράγοντες και τις διάφορες υπηρεσίες, η "χάρτα της ευρυζωνικότητας" είναι ακόμη και σήμερα tabula rasa, δηλαδή λευκό χαρτί όπου ο καθένας μπορεί αυθαίρετα να δημιουργεί το δικό του νόμο, να αυτοδικεί και ουσιαστικά να εμποδίζει την ορθολογική ανάπτυξη μιας



Διάγραμμα 3. Οικιακή Σύνδεση με Σταθερό τηλέφωνο ανά γεωγραφική περιοχή, Πηγή: Focus Bari, 3-6/2008



Διάγραμμα 4. Οικιακή Σύνδεση με Σταθερό τηλέφωνο με συνδρομή σε Service Provider ανά γεωγραφική περιοχή, Πηγή: Focus Bari, 2008

OBSERVATORY
for the greek
information society

Measuring Greek Information Society

Greek Information Society Observatory

Elli Pagourtzi, Chairwoman
Maria Mavri, Research Fellow

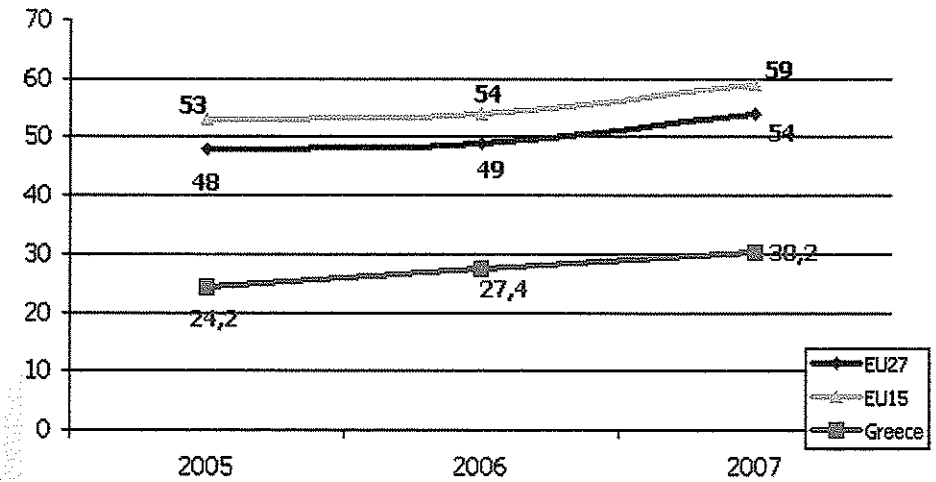
Geneve, 27-29 May 2008

2008 Global Event on Measuring the Information Society

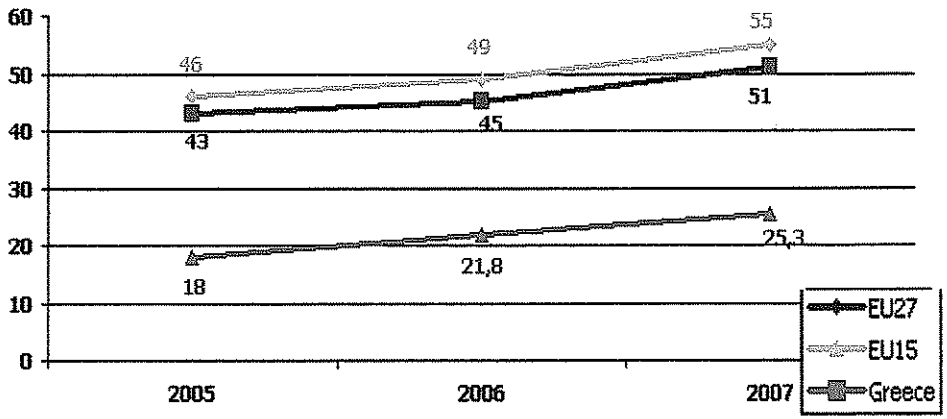
OBSERVATORY for the greek information society

Citizens access to and use of the Internet

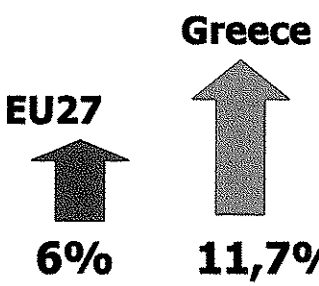
Percentage of households having access to the Internet at home



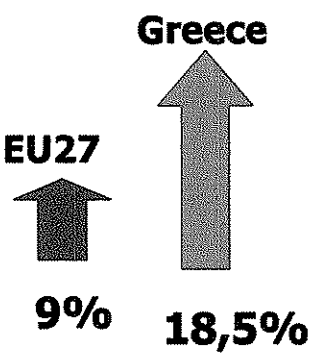
Percentage of individuals who accessed Internet on average, at least once a week



Sample n=8245



Households' having access to the Internet, Compound Annual Growth Rate (CAGR)for the last 3 years, is estimated to 11,7%

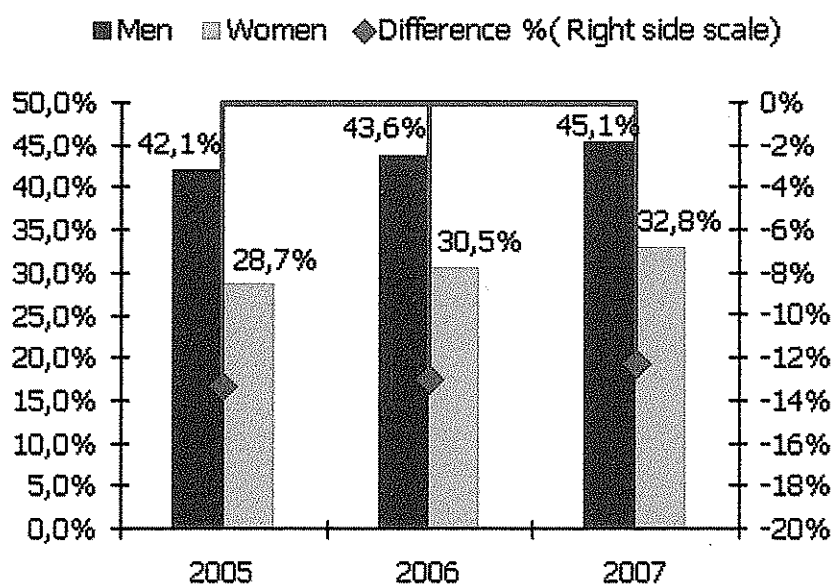


Greece's CAGR is estimated twofold EU27's CAGR

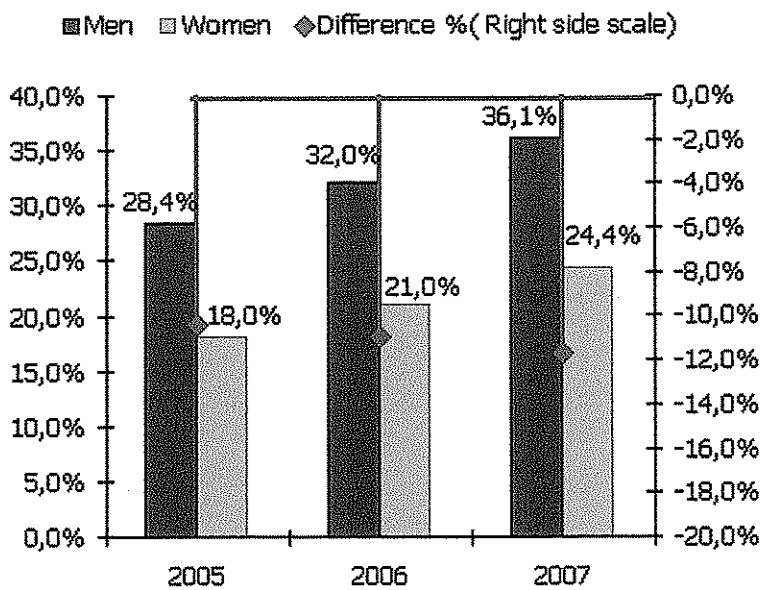
OBSERVATORY for the greek information society

Men and Women who use PC and access Internet

Percentage of men and women use PC



Percentage of men and women who accessed Internet



For third consecutive year, the rates of males that use pc and internet are higher than the rates of female users

The main reasons males use Internet are online orders, purchases of products or services, e-banking and software downloading. Internet usage for job hunting and CV submission is more common for females rather than male population.

Fostering competition in network industries

Anonymous. **OECD Economic Surveys**. Paris: Apr 2007. Vol. 2007, Iss. 5; pg. 115, 21 pgs

Abstract (Summary)

Effective competition in the network industries remains weak. While commendable progress was made in partly or fully privatising state-owned enterprises, the stake of the government in key public utilities remains high, and price regulation is still pervasive, especially in the transport sector. Substantial challenges exist in the energy sector, where vertical integration hampers the emergence of genuine competition, despite the legal opening of the market. In telecommunications, the unbundling of the local loop needs to be speeded up to facilitate access to broadband services and the rapid diffusion of information technologies. The postal services market is being liberalised gradually, in line with the relevant EU Directive. Important concerns arise, however, about the financing of a universal service. In the transport sector, the liberalisation of ferry economy class fares is expected to trigger competition, but the privatisation of the national airline is still pending. Regulation of the road freight sector has remained among the most restrictive in the OECD. In the railway industry, reforms need to continue to promote competition. Effective regulators are essential for ensuring non-discriminatory access to the network and fostering competition in all the newly liberalised sectors. [PUBLICATION ABSTRACT]

Full Text (7789 words)

[Headnote]

Effective competition in the network industries remains weak. While commendable progress was made in partly or fully privatising state-owned enterprises, the stake of the government in key public utilities remains high, and price regulation is still pervasive, especially in the transport sector. Substantial challenges exist in the energy sector, where vertical integration hampers the emergence of genuine competition, despite the legal opening of the market. In telecommunications, the unbundling of the local loop needs to be speeded up to facilitate access to broadband services and the rapid diffusion of information technologies. The postal services market is being liberalised gradually, in line with the relevant EU Directive. Important concerns arise, however, about the financing of a universal service. In the transport sector, the liberalisation of ferry economy class fares is expected to trigger competition, but the privatisation of the national airline is still pending. Regulation of the road freight sector has remained among the most restrictive in the OECD. In the railway industry, reforms need to continue to promote competition. Effective regulators are essential for ensuring non-discriminatory access to the network and fostering competition in all the newly liberalised sectors.

Telecommunications: allowing for more competition in broadband access

The Greek telecommunications market was liberalised in early 2001. Competition has evolved more favourably than in the energy sector with tangible benefits for consumers both in terms of services provided and lower telephone charges. The OECD's regulation indicator places Greece close to the OECD average with regard to the restrictiveness of the regulatory stance in the sector (Figure 6.6).19 Competition is particularly strong in the mobile telephony market, evidenced by the changes in market shares, the fact that none of the three mobile operators occupies a dominant position (the market shares ranged in 2005 between 25% and 38%), and the business strategies followed by the operators (Bank of Greece, 2005). Although Greece was the last country in the EU to grant licences to mobile phone operators, the penetration rate had reached 92.2% at the end of 2005.

The number of authorised public fixed voice telephony operators (including the incumbent) stood at 24 in 2005, around half of which were offering services over a leased or own network (European Commission, 2006). Though the incumbent - OTE - is still strong in the fixed telephony market, competition has intensified in recent years: the share of other providers in the call volume rose to 28.7% during the first six months of 2005, compared with 11.4% over the same period in 2003, with this share standing at 50.4% in the market for international calls (Ministry of Economy and Finance, 2006). Effective competition in the narrowband market has been facilitated by carrier selection, carrier preselection and number portability.

Greece, however, is well behind other OECD countries with respect to broadband access. The penetration rate remains the lowest in the OECD, though it had risen to 2.7% in June 2006 (Figure 6.7) increasing further to 4.5% by the end of the year. A major problem in the broadband market, according to the regulatory authority's 2005 Annual Report, is the lack of alternative technological platforms, as 99% of all broadband lines correspond to ADSL lines,20 reflecting the low competition by alternative infrastructures (EETT, 2006). In this environment, boosting broadband access will depend critically on a more rapid unbundling. After a slow start, owing to a large extent to the lack of a clear investment strategy by the new operators and lengthy delays in the provision of local loop unbundling by OTE, the number of unbundled lines (fully and shared) has been increasing since 2003, reaching 10 654 at mid-2006. The relatively high charges for shared access to networks and difficulties with colocation (i.e. the ability of a new entrant to put equipment in the incumbent's switching office) are important impediments to a faster unbundling (EETT, 2006; European Commission, 2006). Recent efforts towards stimulating unbundling include the halving of the monthly fees for shared-access lines and the establishment by the sector regulator, the National Telecommunications and Post Commission (EETT), of a Colocation Group, with the prerogative of resolving any conflict between OTE and the interested parties. Moreover, in response to the rising demand, a large programme for preparing colocation areas is underway, which should be completed by August 2007. These initiatives go in the right direction. Access to the local loop is essential for increasing broadband services and reducing prices, which are high in international comparison (Figure 6.7). Wide usage of broadband services will contribute to raising the penetration of the Internet, which is still well below the OECD average, despite its rapid expansion in recent years.

An important factor for the further development of the telecommunications markets is the rigorous implementation of the 2006 law on Electronic Communications. The law harmonises the Greek legislation with the regulatory framework of the European Union. The long delay in transposing the main provisions of the EU framework is seen by the European Commission as having had some serious consequences for the Greek electronic communications sector, especially in the area of broadband (European Commission, 2006). The 2006 law improves the regulatory framework to raise investment in electronic communications. It includes measures for the development of the market (such as the removal of obstacles in the licensing of electronic communications networks and services) and enhances the protection of consumers. The 2000 law had already granted the regulator the right to award licenses and impose fines. To date, it has taken action to increase competition and ensure that the appropriate regulatory safeguards are in place. The broadening and clear definition of its role and competencies, especially with regards to competition issues, and better staffing foreseen by the new law are welcome.

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Print article

In Brief

OTE fined for breaching competition rules

Greece's telecoms regulator (EETT) has fined the country's largest phone group OTE a total of 9 million euros ($14.2 million) for breaching competition rules, the watchdog said yesterday. OTE, which is partly owned by Deutsche Telekom, was fined after the former phone monopoly's main fixed-line competitor Tellas complained to the regulator it did not have fair access to the national network to provide its customers with new products. "EETT ruled that OTE, with its position as the exclusive network provider, violated open access laws," the regulator said in a statement on its website. "The result was that Tellas had to suspend its commercial promotion of its product." OTE officials were not immediately available for comment. Tellas, owned by Wind Telecoms, wanted to offer "double-play" packages, or combined fixed-line and Internet services, but delayed this after OTE put up obstacles to the immediate use of its network, EETT said. Meanwhile, OTE reached an agreement on wage increases for this year and 2009, the federation of the company's unions said. The collective labor agreement will provide increases of 3.5 percent and 3 percent this year and 3 percent and another 3 percent next year, OME-OTE, the federation of unions at the former phone monopoly, said. (Reuters, Bloomberg)

Hellenic Exchanges says H1 profit down 11 pct

Hellenic Exchanges Holdings, the operator of the Athens bourse, said first-half profit fell 11 percent on lower trading volumes. Net income dropped to 35.7 million euros ($56 million) from 40.2 million euros a year earlier, the exchange said yesterday on its website. That was higher than the 34.9-million-euro median estimate of seven analysts surveyed by Bloomberg. Revenue fell to 63.2 million euros from 72.1 million euros, more than the analysts' estimate of 62.2 million euros. "This reduction is due mainly to the overall reduction in transaction activity in the cash market of the Athens Exchange," the company said. "The average daily value of transactions in first-half 2008 was 414 million euros, versus 440 million euros in the corresponding period last year." (Bloomberg)

Turk acquisition

Russian oil major Lukoil agreed to buy Turkish fuel distributor Akpet for $500 million yesterday, securing 5 percent of Turkey's oil product retail market as it continues its downstream expansion. Lukoil, Russia's second-largest oil producer, plans to double its Turkish market share to 10 percent within a decade after acquiring eight oil product terminals with total capacity of 300,000 cubic meters, the company's president, Vagit Alekperov, said. "Lukoil bought Akpet for a little bit more than $500 million," Alekperov told a news conference in Istanbul after signing the deal with Akpet's owners. Lukoil last month took its first major step into the western European refining business with the $2.1 billion purchase of a 49 percent stake in Italian refiner ERG SpA's Isab di Priolo refinery on Sicily. (Reuters)

Date : *29/7/08*

Close

SPEECH/07/355

Viviane Reding

Member of the European Commission responsible for Information Society and Media

Why Greece needs broadband and why it needs it now – a European perspective

The International Conference "Exploring the Global Dynamics of Broadband Internet"

Athens, 1 June 2007

Mr Prime Minister, Mr President, Ladies and Gentlemen,

I am honoured to share today's session with such distinguished speakers. Your participation at this conference demonstrates how committed Greek Government is to broadband as a policy flagship. I fully share this goal. Broadband is critical if we want to boost the competitiveness and growth of Europe and of its Member States.

Greek position on broadband

As we have heard today, the **penetration of broadband lines** is increasing fast in Greece. In January 2007 there were 4.4 active broadband lines per 100 citizens, and of course this figure is higher this month. However, this compares to the European average of 16.9 per cent. Despite the significant increase in recent months and government initiatives such as the 'Year of Broadband', Greece is still trailing in last position in the recently enlarged European Union of 27 Member States. And the average speed of these broadband connections is well below what many other European consumers are used to.

Second, let's look at the **coverage of broadband** lines. Greece again holds the last place in Europe. Only 19% of Greek citizens could subscribe to broadband, compared to almost 90% across Europe as a whole.

I recognize that the topography of Greece does not help; all those beautiful islands and remote mountains. But, at present, **broadband availability** is still a dream even for the many Greek citizens living in sub-urban and rural areas.

Should we care? Why is it that I can claim that Greece needs broadband, and it needs it now. Let us look at what Greece is missing out on because it lacks broadband.

The economic argument for broadband

There is growing evidence that broadband boosts economic growth. An MIT study published last year showed that broadband boosted employment by almost 1.5% per year, as well significant increases in the setting up of new firms formation and a rising share of knowledge economy firms.

The Scottish Executive has recently estimated that the Scotland's private sector will grow by up to €10 billion until 2015 due to broadband take-up. Also a recent OECD study shows that firms that adopt e-business techniques using broadband can raise productivity by 31%.

The lessons are clear: broadband makes good economic sense for the business community, and the more intensively you use it the more productivity gains you will make. That is one reason why Greece needs broadband and it needs it now.

Broadband and Public services

Some say Greek citizens are not interested in fast internet access. Well as citizens, Greeks should be interested and they should be calling on the government to set the lead.

Broadband means better, more efficient and effective services to their citizens. And the fact that Greece has this special, wonderful, geography of mountains and islands makes this even more important.

Let me give you the example of healthcare. Broadband means bringing the best standards of care to the remotest locations. It can offer life-saving clinical applications such as remote surgery and remote diagnosis. Imagine you have a heart complaint and you are away in your island retreat, can you afford to wait until you are back in the city if you feel chest pains coming on?

Perhaps the local doctor will be able to help, but will he have access to your history of electro-cardiogram to see if you have suffered an new attack? Will he know or have access to all your treatment records? Suppose there is something wrong, and you need treatment in a local hospital. Would you not feel better if your cardio-specialist could sit in on the intervention?

This may seem an exceptional case. It is not the benefits are big. Clinical ehealth applications mean faster and more accurate treatments, reduced costs from referrals, reduced travel costs, earlier return to the community and of course better access. Remote treatment means access to top specialists, local treatment of minor surgeries and effective treatment of trauma where time delays and risks are extremely important. Remote monitoring means that people can go home earlier after treatment or allowing people to stay in their communities even if they have a delicate medical condition: very important for elderly people. Remote consultation means patients don't always have to travel long distances to see the specialists. Training and diagnosis support can increase certainty for doctors and patients. Electronic health systems can reduce errors in prescriptions, improve the coordination of multidisciplinary care needs, avoid expensive and necessary duplicate tests, get results to doctors more quickly, facilitate electronic prescription at the pharmacist and reduce risks of mistreatment. Remember more people are killed in Europe each year by preventable medical errors than are killed in traffic accidents.

The list could go on. But I hope you are by now convinced of the potential benefits. Why don't we see actual benefits? Well in some cases we do see this happening. That is why I am so happy to applaud the HYGEIANET in CRETE as an example of how health networks can be put into practice. But, there are many factors that hold us back: notably administrative factors (budgets and uncertainty about how to handle reimbursements for treatment); technical factors especially a lack of interoperability of systems; human factors, especially resistance to change from health care professionals and administrations!

The latest survey data from the Observatory on the Greek Information Society indicates that still only around one half of doctors are on the Internet, only one quarter keep patient records electronically and only one third of General Practitioners that are on line use broadband. On the other hand, 83% of Greek GPs that have taken the ICT plunge up say it adds considerable value to their work!

What's the problem? Our studies show that unless doctors, nurses and pharmacists have systems that give them the information they need instantly they will not use eHealth services. If they don't have access to fast, always on communication GPs cannot and will not take up these life saving, budget reducing, care enhancing services. We need to get beyond the stage of pilot and programmes. Greece needs a fully operational knowledge web for health care based on a developed broadband network. Greeks doctors and patients need this broadband web and they need it now.

The eHealth story is quite graphic. We can add to it **eGovernment** services. It is not enough that the main offices are wired up to the internet. If we want the benefits of low cost and efficient services must be available to everyone, including the less well-off, the less able and those living in remote areas. All our citizens and companies should be able to access government information and services at any time, anywhere. This is another reason why Greeks need broadband connections are available to all.

Let me take a third example: emergency services. Public safety and emergency services are under increasing pressure from: population ageing, hyper-mobility, rising crime and other security concerns such as terrorist threats and environmental challenges such as climate change. This is a critical area where high speed communications count, yet the technical architectures of most existing emergency access systems were designed more than 20 years ago. The communications systems are often out of date – often based on analogue equipment – and fragmented into a patchwork of different sub-systems. There is no harmonised radio spectrum for emergency communication purposes of the EU and interoperability problems are rife. This means lower efficiency and slower emergency responses, especially in large scale cross-border disasters when international coordination is required.

The key to successful emergency response is swift, accurate and timely information. Authorities and field teams must know what has happened, who is responding and how, and what the next moves should be. Complex emergencies require access to, and sharing of, large amounts of information between public authorities and operating teams in the field as well as rapid access to specific expertise for victims that are suffering and in need of immediate care. This calls for removal of technical barriers to access information and services.

But that is not all. We also need affordable and secure high-bandwidth communications, both fixed and mobile and terrestrial and satellite. When a major disaster occurs, the required information, be it medical records, details of dangerous substances or maps and pictures, must first be made available, usually from different locations, and then distributed. Yet today our "first on scene" response teams only have access to "drip-by-drip" narrowband communication. Is this good enough when "broadband for all" is within grasp. Should we accept the existence of a digital divide in the safety of Europeans? No! Greece's safety services need broadband and they need it now.

Broadband policies make a difference: the Greek action plan

What can we do to make things move? I believe that policy actions can make a difference.

The Greek Digital strategy has set concrete targets: population coverage to reach 90% of population by 2008; to cover 60% of the land surface. These targets are backed up by substantial budget commitments: €210 million until 2013 (50% from the European Community) of which 160m€ will be put into new local access infrastructure and 50m€ for demand stimulation.

Two weeks ago in Brussels, at the "Bridging the Broadband Gap" conference, the "Greek Broadband Action Plan to 2008" was presented with its aims to implement Metropolitan Area Networks in 75 municipalities, wireless broadband in 120 towns and communities, 770 wireless hotspots in 400 firms and use of broadband by satellite. All this supported by fiscal incentives for broadband rollout, broadband services.

Greece has committed to arriving at the EU average penetration rate over the next two years until 2009.

Broadband through competition

These are very substantial ambitions and I applaud the government's aims and actions. But there are some further policy steps that are crucial to make sure that Greece not only catches up but that it moves itself to the forefront of broadband innovation.

Remember, however, that the targets for broadband performance are moving all the time. The headline penetration rates that we cite today are based on a very basic concept of "broadband," anything above 144 kilobit per second. But what we are seeing these days is that broadband services today need not just to be "always on" but capable of 2 Megabits to support basic Web 2.0 and IPTV type services. In rural areas in Europe as a whole, the most common speed is 512 kilobit per second, many go much slower. In a few years time - before 2010 - the minimum acceptable speed will be around 20Mbs in both directions and rising. This will be driven by demands for full-length video services, high definition images, interactive environments. People also will not accept latency – that is to say services that are slow to respond.

Greece needs today's broadband today, but it also needs a dynamic competitive environment to deliver tomorrow's broadband tomorrow. Government subsidies can trigger the evolution, but they cannot deliver the long term solution: this needs a market-led response.

Broadband policies: regulation for competition

That is why Greece has to have a regulatory approach that stimulates innovation, competition and investment on a sustainable basis. All our experience confirms that countries apply the regulatory framework correctly and effectively are leading broadband take-up.

I therefore welcome the progress in Greek market developments as a result of the transposition of the regulatory framework: the 80% price reductions in broadband services, the 600,000 new broadband lines that have been installed, the 250% increase in unbundled local loops since the beginning of this year.

This is good progress, but high rates of change are not surprising when Greece was so far behind to begin with. It is not necessary to keep in mind that Greece is significantly behind, the pressure must be kept up to achieve the target of parity by 2009.

I am happy also to see further initiatives from the Greek Regulator a very fast analysis and imposition of remedies on 17 markets, publication of the reference unbundling offer; information campaigns such as the 'Week of Broadband' to raise public awareness of broadband, and a proactive approach to the licensing of Wireless Broadband. I know there have been some complaints about the rush of work that transposition has unleashed In the Greek marketplace, but I am supportive of the work of Mr Alexandridis and his team.

However, I am still worried by the fact that the Council of State has still not made a single decision since 2001. One of the leading unresolved questions in Greece is how to streamline and modernise these procedures for the high paced-high tech economy. These delays and doubts create legal uncertainty which is the enemy of investment and innovation in the move to broadband.

Non-discrimination in the absence of infrastructural competition

As we look to the future, in the coming months I will propose a reform of the electronic communications framework. **One of the changes I am looking at in the context of this year's reform of the EU Telecom rules is to give regulators a mandatory power to impose functional separation on telecom companies with significant market power.** That is to say to force a separation within such a dominant company of the network access division from the services divisions.

For alternative network operators and regulators this measure has attractions from a regulatory perspective where there are continuing difficulties in establishing non-discrimination. For incumbents we have seen that it can offer legal certainty – which is crucial to the long term investments that are now needed to move to next generation networks. However, due to its intrusive nature, this should be an exceptional remedy, and its possibly negative effect on the emergence of infrastructural competition is of concern. However, given the almost non-existent level of infrastructural competition on the local loop in Greece I will be watching with interest to see who well the EETT's remedies to achieve non-discrimination are working.

The need for wireless

Let me end by talking about a key aspect of "broadband for all" in the context of a country with the difficult – if magnificent – geography of Greece. **Wireless broadband will be a key component of overcoming the digital divide in remote and rural settlements. We need a policy framework for spectrum that unleashes this potential.** Wireless is the future especially for your Greek islands.

The Commission's **spectrum policy** aims to make spectrum usage flexible and market driven. Today the process for allocating spectrum is slow, bureaucratic and rigid, attaching technology and service constraints to spectrum usage rights.

In the reform of the electronic communications framework, I will propose a change of approach: let's make flexibility the default, not command and control.

I am already working with Member States to open up the **2.6 Giga Hertz band** for innovative fixed wireless access applications, such as WiMax in addition to 3G. But if we want significant wireless broadband speeds at a low price we will need more frequency in spectrum ranges that have high propagation characteristics. In short, policy makers need to look at the digital dividend created by the switch over from analogue to digital TV very closely to see if they can carve out space for wireless broadband in the UHF space. We have to think how we can use this-once-in-a-generation opportunity, to make the best out these very valuable spectrum bands. Even a relatively small part of this spectrum range could provide the basis, bridging the digital divide in rural areas in a scaleable and cost effective manner, as well as providing the basis for an alternative infrastructure competition in both urban and rural communities.

This would mean more competition, more services and more choice. But this would have to be done on the basis of the public interest. I do not believe that high stakes auctions in which only those with the deepest pockets can take part would be effective. We need to encourage investment and competition – we need cheap, wide band services for all.

Prospects for Greece

Ladies and gentlemen,

In the Twenty-First century, broadband is not an optional extra – it is the rail track of the information revolution. Regions and nations that have embraced broadband are showing better growth, those that have not are seeing their economies fall behind.

Greece with its massively talented population can only benefit from a neural system that wires together its brainpower.

I applaud your efforts – those of the Government and the Regulator - to move things forward. These efforts are paying off. But this is not a sprint, it's a Marathon. That has to be run at sprint speeds. It's tough, but Greece badly needs to keep going to catch up in that race.

Greece needs broadband and it needs it now.

The future regulatory framework of Europe's telecom markets: More Europe is needed

Let me add a last word on how Europe could help Greece to strengthen competition in the Greek telecom markets and to speed up further the take-up of broadband: **The Commission is currently in the final stage of its work on concrete proposals for a new regulatory framework for Europe's Telecom sector.**

The Commission services will **this summer** work intensively on a detailed economic impact assessment to ensure that our proposals will strengthen competition, growth and consumer benefits in Europe's telecom markets.

At the end of October, I will publish concrete legislative proposals that will then go into co-decision with the European Parliament and Council. These proposals have two main pillars:

- First of all, ensure that competition in the telecom markets, and in particular in the broadband sector, is strengthened, also by making available radio spectrum for wireless broadband services.
- Secondly, to complete Europe's internal market for telecommunications.

Telecommunications is clearly a field where we need more Europe, not less. In many EU countries I see that national telecom regulators are prevented from doing the best possible job, either because they are not sufficiently independent or lack the required resources and instruments – it is here, where Europe can help. In many cases, I see that cooperation among national regulators is not sufficiently developed to deal, in a consistent way, with cross-border issues or issues which have an impact on competition in the internal market – it is here where Europe has to come in, as we just did on the problem of mobile roaming charges.

I know that many here in Greece favour the idea of **a single European telecom regulator**.

Ladies and gentleman, the roaming story should have shown you that **we have a European telecom regulator already – it is the European Commission, which is a truly independent and supranational European institution.** If we really believe in an internal market for telecom companies and users, the reform of the EU Telecom rules will thus have to strengthen the oversight of the European Commission over the national telecom markets.

In addition, we are currently working on how to improve also the work of national regulators and how to combine their work in a new European logic. The current framework of loose cooperation among national regulators is clearly insufficient for the challenges of the digital age. **In this respect, our work over the next weeks will have to carefully balance the need for federal solutions where necessary and the potential of decentralisation where possible.**

The details of my proposals will be made public in October – and I sincerely hope that these proposals will help Greece to become a stronger performer in Europe's telecom markets.

Development of the Broadband Market in Greece

The development of the broadband market constitutes a priority issue for all developed nations. The European Union (EU) has declared it as one of its main goals pursuant to the Lisbon Strategy. According to Michael Copps, Federal Communications Commission Commissioner in the USA «Broadband networks are as important nowadays as roads, channels and railways were equally important in the 19th century and highways and telephone in the 20th century».

For a country having the geographic characteristics of Greece, the exploitation of broadband applications is the vehicle for the development of remote regions. However, a series of factors such as the delayed opening of the broadband market and the lack of alternative infrastructure, have demoted Greece among the last EU member states regarding broadband penetration. Reversal of this situation is a priority and commitment for the Hellenic State, a fact evident both in the 2007 Digital Strategy and in the proclamation of 2007, by the Prime Minister himself as the year dedicated to the promotion of broadband services.

EETT within the framework of its responsibilities, has declared broadband connectivity development as a core target, so that all citizens of Greece can gain access to the «society of knowledge», in order to bridge the digital gap between Greece and Europe as well as among the individual population segments of the country.

A reasonable question asked is where the Hellenic broadband market stands today and which are the evident prospects, based on its current developments.

According to Diagram 1, in 2006, broadband connections in our country exhibit an accelerated growth, that exceeds a three - fold, approaching 500.000 by the end of year, compared to 160.000 by the end of 2005. In fact, according to Point Topic company, Greece presented for 2006 the greatest percentile increase worldwide in terms of number of broadband lines. Data available so far (Diagram 1), indicate that broadband penetration can exceed the 10% limit by the end of 2007.

This rapid increase of broadband lines can be attributed to the significant reductions of ADSL tariffs during 2006, the doubling of the nominal speeds of ADSL packages and the launching of new and competitive packages by broadband operators.

Despite this important development, Greece remains the EU member state with the lowest broadband penetration (3,3% at the end of September 2006 - Diagram 2), compared to the average EU broadband penetration at 15,7% and Slovakia - penultimate in the list - at 4,3%. Due to even more rapid development during the latest months, broadband penetration has reached 5,6% at the end of March 2007, thus reducing the gap between our country and the remaining EU member states.

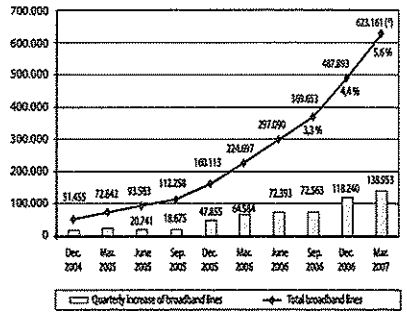
Comparative figures already indicate that broadband penetration in Greece is developing at a pace comparable to - or even faster than - the other EU member states, when these were at a similar broadband penetration level, as shown by way of example in Diagrams 3 and 4 for the cases of Italy and Great Britain.

From a technological view point, the predominant means for the provision of broadband access in Greece is the use of OTE's copper network (DSL access) and most specifically the use of OTE's ADSL offering. This fact is evident of the low level of infrastructure based competition which has constituted a main vehicle for development in all advanced broadband markets.

EETT, recognising the need to promptly address this issue, culminated its actions in 2006 in the direction of developing Local Loop Unbundling (LLU). To this end, a working group has been established with the aim to promote co-location, which is a prerequisite for LLU development, and particularly physical co-location, which had exhibited significant retardation until the end of 2005.

Such activities resulted in the invigoration of the specific market. The number of physical co-locations increased rapidly from a mere single site in September 2005 to 42 in March 2007, with the aim of exceeding 150 by year-end. Alternative providers having expressed a marked interest for moving to higher levels on the «ladder of investment», took advantage of this facility and exploited the possibilities afforded by LLU, thus launching new plans combining broadband Internet access with fixed telephony services and/or subscriber TV and video-on-demand. These developments were evident in the break-through in LLU lines (Diagram 5), increasing from approximately 7.000 at the end of 2005 to 19.500 at the end of 2006 and 39.000 the next quarter (end of March 2007).

Diagram 1. Evolution of Broadband Lines in Greece



(*) according to initial quarterly results; error estimated < 0,2%

Diagram 2. Broadband Penetration (lines per capita) in EU Member States on 01/10/2006

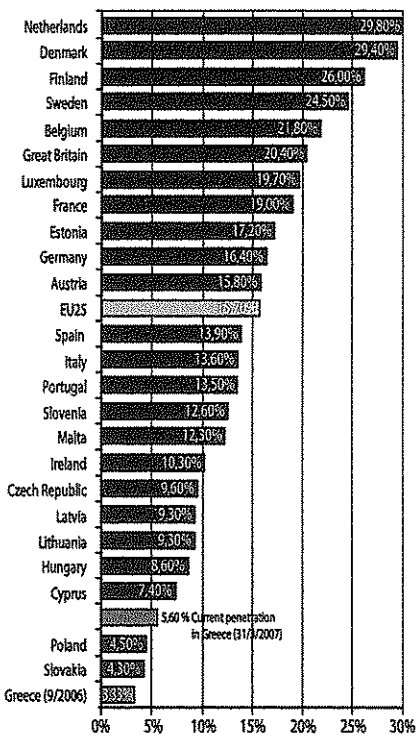


Diagram 3. Comparison of Broadband Market Trends between Greece - Italy

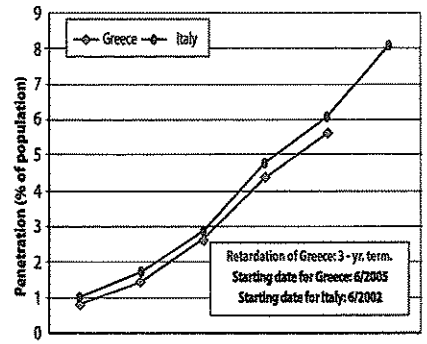


Diagram 4. Comparison of Broadband Market Trends between Greece - Great Britain

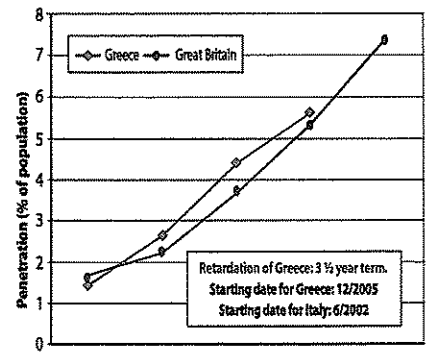
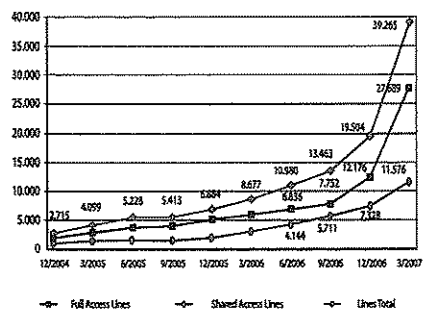
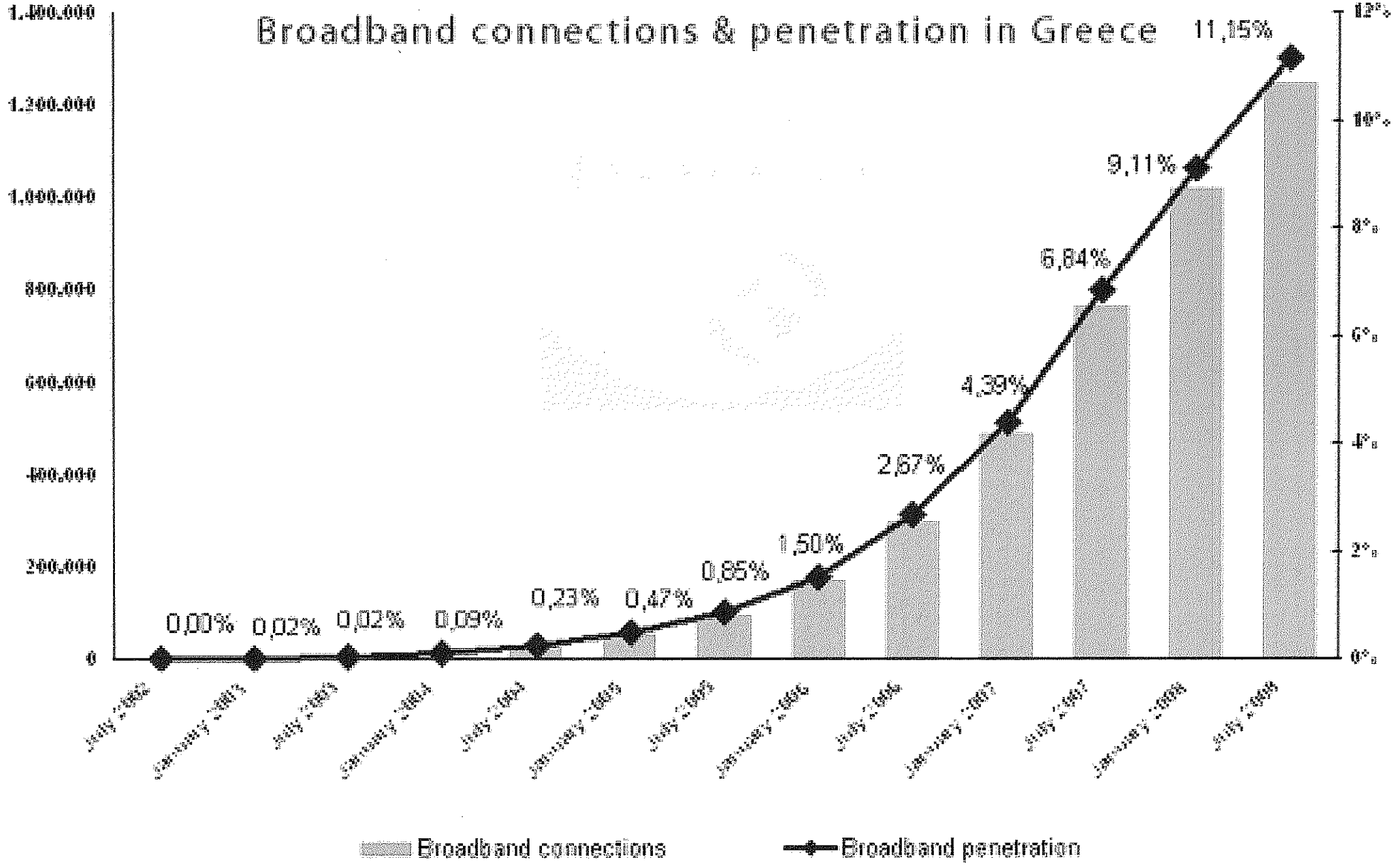
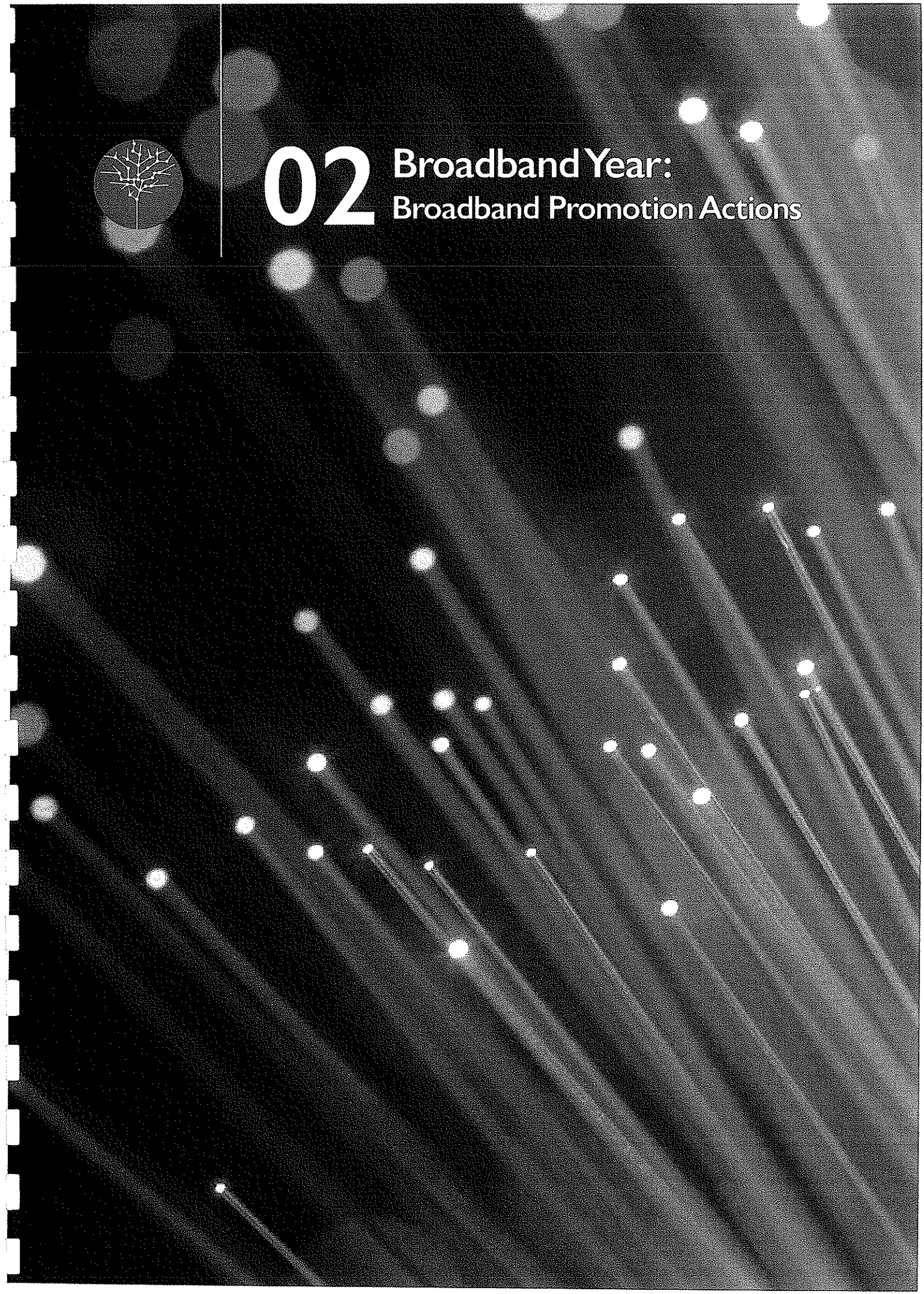


Diagram 5. Development of ADSL Lines




Broadband connections & penetration in Greece
1.400.000
1.200.000
1.000.000
800.000
600.000
400.000
200.000
0
12%
10%
8%
6%
4%
2%
0%
0,00%
0,02%
0,02%
0,09%
0,23%
0,47%
0,85%
1,50%
2,67%
4,39%
6,84%
9,11%
11,15%
Broadband connections
Broadband penetration



02 Broadband Year: Broadband Promotion Actions

The nomination of 2007 as Broadband Year by the Greek Prime Minister, Mr. Konstantinos Karamanlis exhibits fully the significance that is rendered to broadband growth by the Greek state.

From the regulatory side, the enactment of Law 3431/2006 provided EETT with the necessary tools for the substantial unbundling of Local Loop. This fact resulted in the strengthening of competition and the increase in the investments made by the alternative operators in order to provide innovative services.

At the same time, EETT proceeded to certain broadband information campaigns, in order to ensure that the consumers march along with the market developments and utilize the resulting benefits.

2.1. The Broadband Progress in Greece

2007 was a landmark year for the broadband progress in Greece. The broadband connections exceeded 1,000,000 at the end of the year (population penetration rate 9.1%). At the same time Local Loop Unbundling (LLU) demonstrated a rapid growth.

According to the data of the 13th Annual Report of the European Commission on the progress of the European Electronic Communications market, Greece for the first time entered into a convergence orbit with the European Union (EU), since its annual broadband growth rate (annual increase of the broadband lines per inhabitant) was bigger than the average European one. Specifically, the broadband growth rate in Greece for 2007 ranged to 4.7 lines per 100 residents compared to the European 3.8 lines per 100 residents. The result of this growth for 2007 was that Greece no longer occupied the last position of the EU classification regarding the broadband penetration.

The rapid increase of the LLU lines was a catalytic factor for the broadband growth, since at the end of the year it constituted 20% of the total broadband lines and respectively, over the 5% of the main telephone connections of the country.

The LLU growth is directly connected to the Physical Collocations that were carried out in Greece during 2007. Specifically, at the end of the year a Physical Collocation was provided to 70 OTE's Local Exchanges in Attica and in 49 in the rest of Greece. The increase of the physically collocated areas provided the alternative operators with the capacity to access a percentage larger that 60% of the country's total subscribers.

It is noted that, the basic mean for broadband access still remains the xDSL access via ARYS lines[17]. However, the increase rate of that specific access declines constantly in relation to the respective rate of access via LLU that increases. This progress shows on the one hand that the alternative operators climb up the ladder of investment and on the other hand the consumers' interest for innovative products of Electronic Communications.

2.2. Regulatory Interventions of EETT

Issue and Amendment of the Reference Unbundling Offer

EETT approved[18], after certain amendments, OTE's Reference Unbundling Offer (RUO). The obligation for the submission of this specific Offer was imposed to OTE by a former EETT's Decision[19], due to the lack of competition that existed in the wholesale LLU market.

The new Reference Offer defines the prerequisites and the procedures according to which OTE provides the necessary services and access conveniences to the operators (primarily the collocation rights to its Local Exchanges), in order for the latter to be able to provide competitive LLU services to the consumers. It is noted that OTE's RUO does not regulate the conventional retail relationships among the operators and the subscribers.

17. ARYS is the Greek definition for ADSL and is about the broadband technology that uses the existing telephone lines' copper cables in order to succeed in achieving higher data transmission speed (along with the simultaneous voice transmission).
18. EETT Decision 429/15/04-04-2007, GG Issue 620/B/25-04-2007.
19. EETT Decision 388/012/31-05-2006, GG Issue 932/B/2006/18-07-2006.