



Broadband Penetration in Greece: Current Situation and Major Trends

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**BReATH Workshop
AIT, 4 September 2006**

A small presentation of the Greek I.S. Observatory.

What is the broadband diffusion pattern in Greece?

Which are the main trends in terms of penetration, prices and services?

What policies/services would contribute to the broadband take up?

The Greek IS Observatory is a non-profit organization under the supervision of the Ministry of National Economy and the Ministry of Interior, Public Administration & Decentralization

The vision of the Greek IS Observatory is to become:

- ✓ the central point of reference for accurate and up-to-date information on IS figures
- ✓ one of the main institutional bodies that recommends ICT actions and policies

The mission of the Greek IS Observatory is:

- ✓ to measure and evaluate the national progress towards the Information Society
- ✓ to contribute to the national effort to accomplish the IS strategic goals

Accordingly, its Strategic Objectives are:

- Reliable and on time validation of the quantitative and qualitative data as regards the progress made towards the Information Society
- Improvement of the level of information on which the national strategy and actions are based as regards the Information Society
- Transfer and diffusion of best practices and assistance in the exchange of experience, technical expertise and information among agencies in Greece and abroad
- Relation of the provided services with the guarantee of respective resources

In order to accomplish its strategic objectives, the Greek IS Observatory proceeds to the following activities:

- ✓ Collection, analysis and evaluation of quantitative and qualitative data
- ✓ Data comparison and assessment of the national progress made towards the Information Society
- ✓ Analysis of data collected by the Observatory for the Greek IS or made available by cooperating parties
- ✓ Formulation of recommendations to the public sector and local ICT market
- ✓ Continuous monitoring and support of the ICT sector progress
- ✓ Setting-up of working groups with public and private institutions, social partners, scientists and other interested parties with a view to promoting dialogue and exchange of ideas
- ✓ Collection of Best Practices from Greece and abroad, especially from countries with significant progress towards the Information Society
- ✓ Information & knowledge diffusion to the public
- ✓ National representation in relevant European and international fora
- ✓ Supporting the work of the Greek ICT Committee or the body responsible for the national ICT strategy

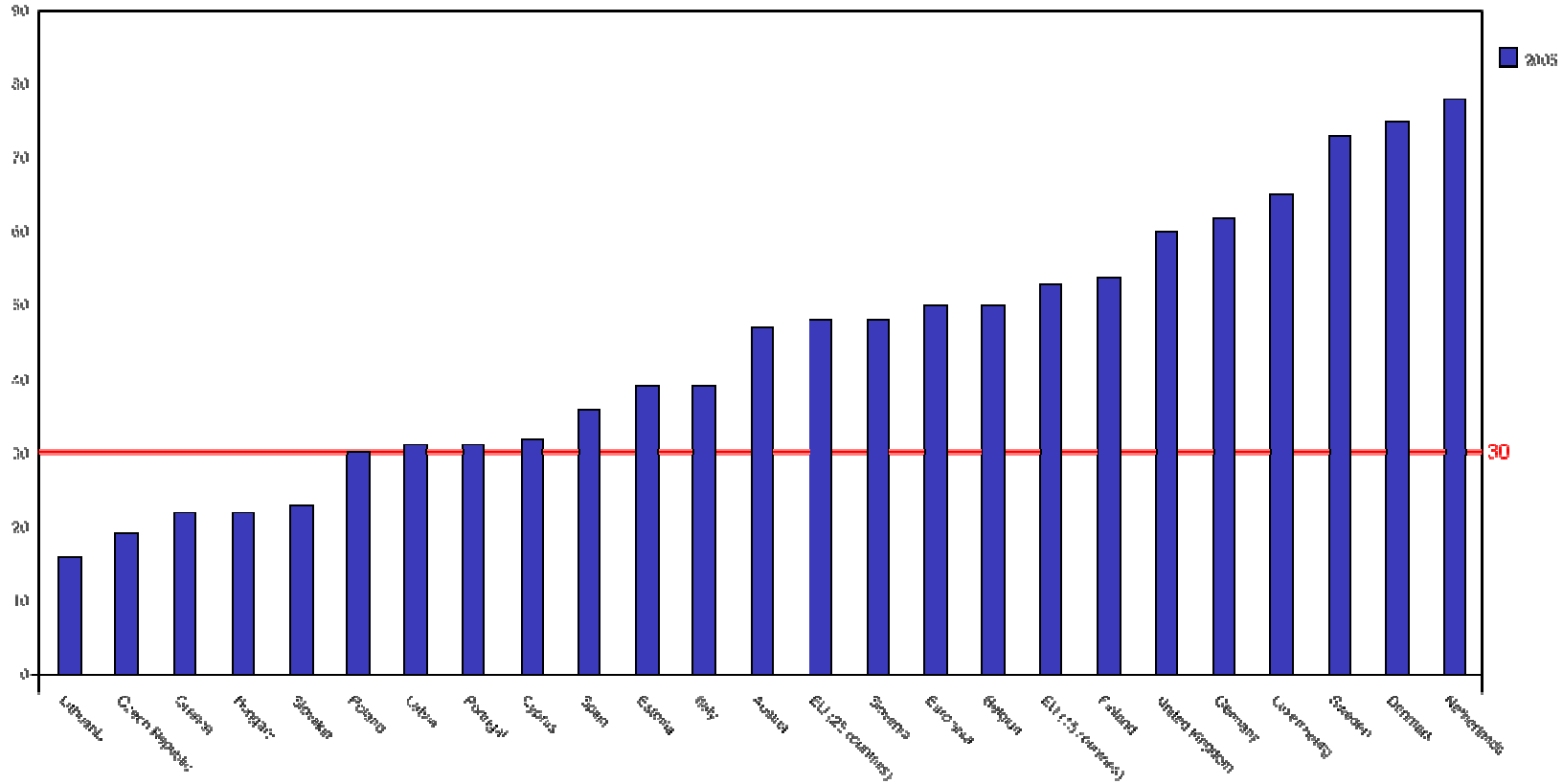
The Observatory's main **areas of interest** are aligned to those of the European initiatives (eEurope - i2010) and the Operational Programme for the Greek Information Society.

| | | | |
|----------------------------|-------------|-----------|-----------|
| Broadband | eGovernment | eBusiness | eLearning |
| Greek ICT Sector Evolution | eHealth | eSkills | eSecurity |

Current internet penetration in Greece compared to EU countries

Level of Internet access - households

Percentage of households with home Internet access at home

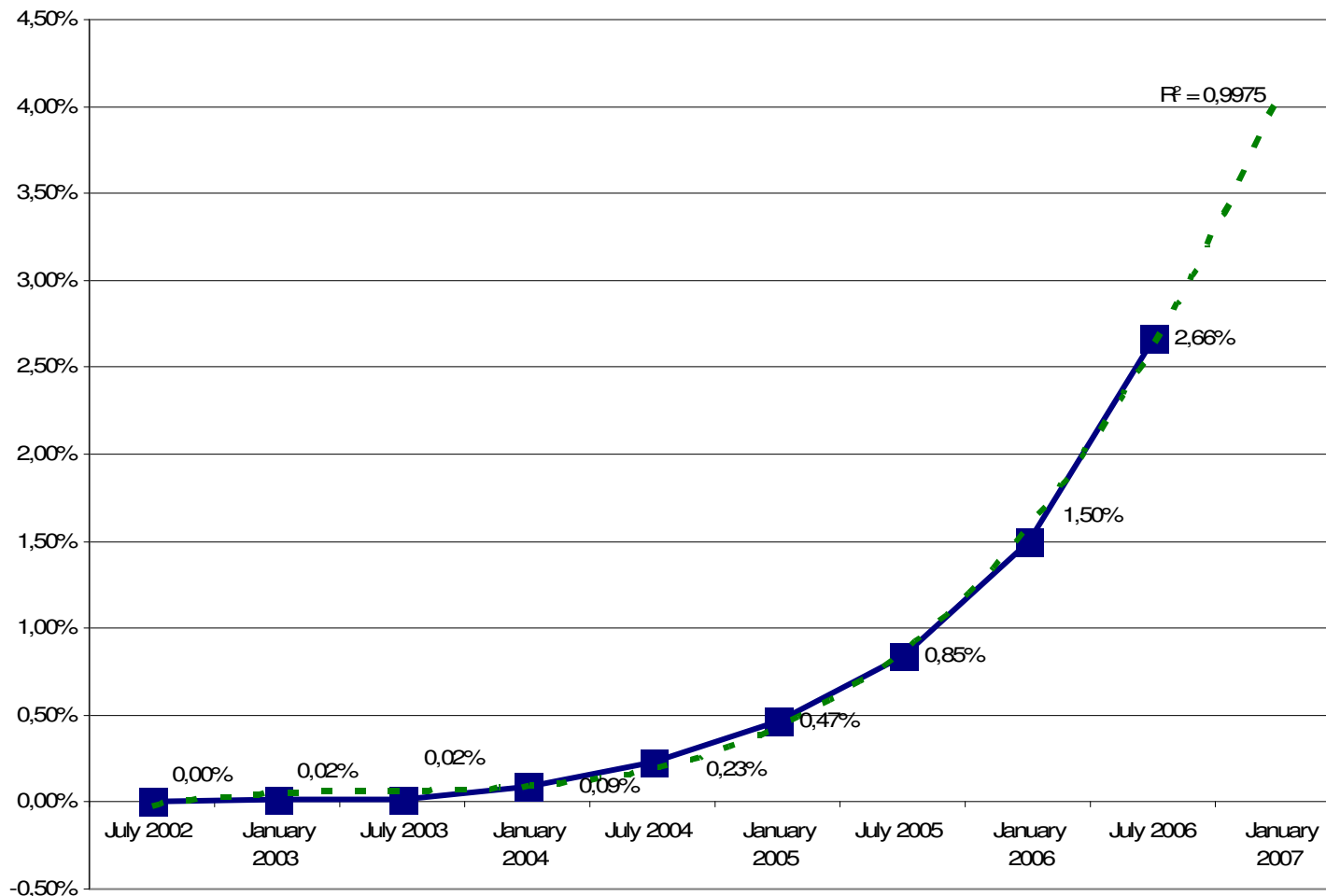


Source: Eurostat

Notes

The above percentages are up to the third quarter of 2005. Internet penetration in Greece amounts to 22% which corresponds to a 30% increase from 2004. The red line represent the Lisbon Agenda targets: "aimed at making the region the world's most dynamic and competitive knowledge based economy by 2010".

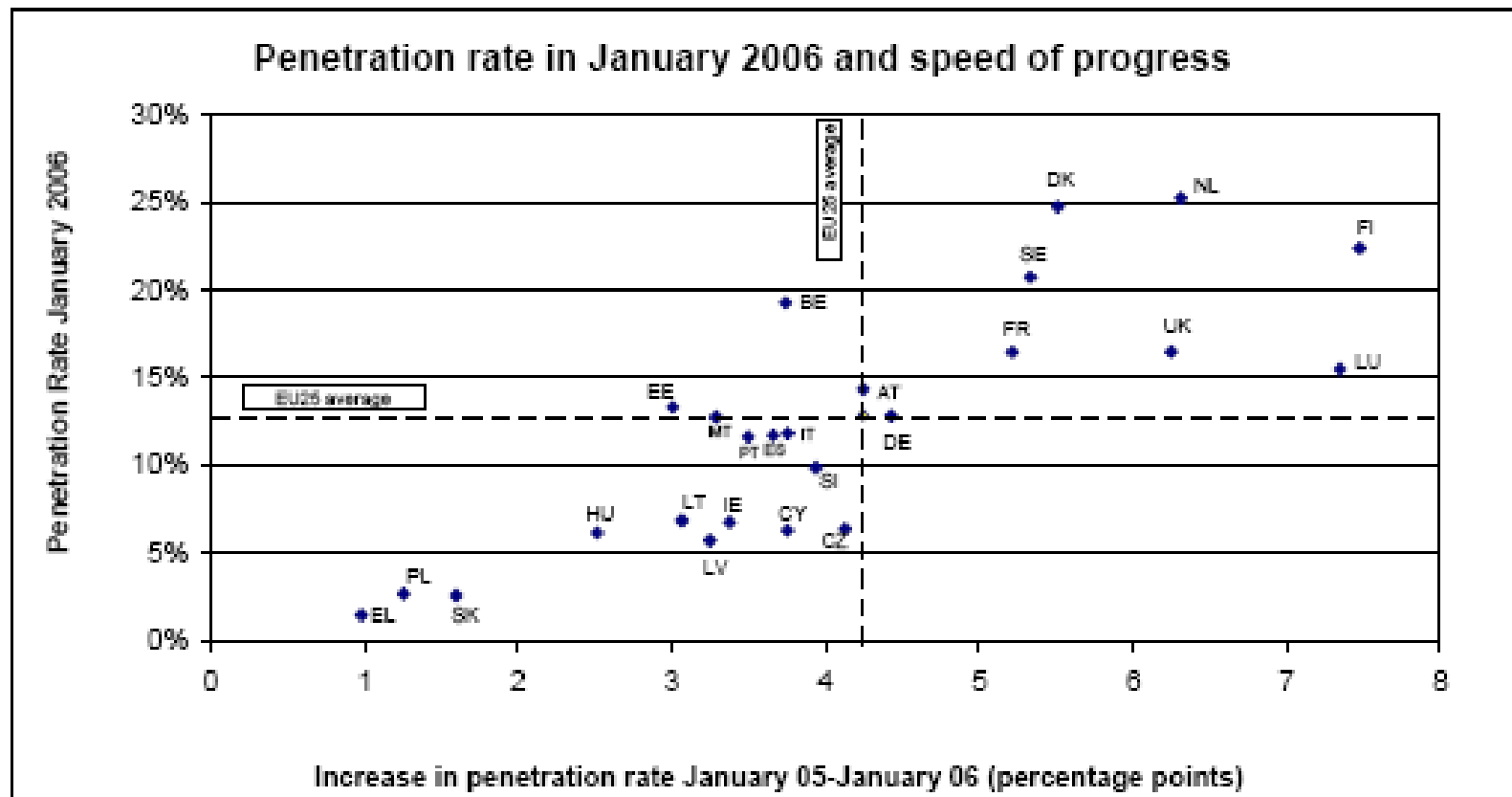
Current broadband penetration projection (based on the experience of other countries) shows that Greece will exceed 4% by the end of 2006



Notes

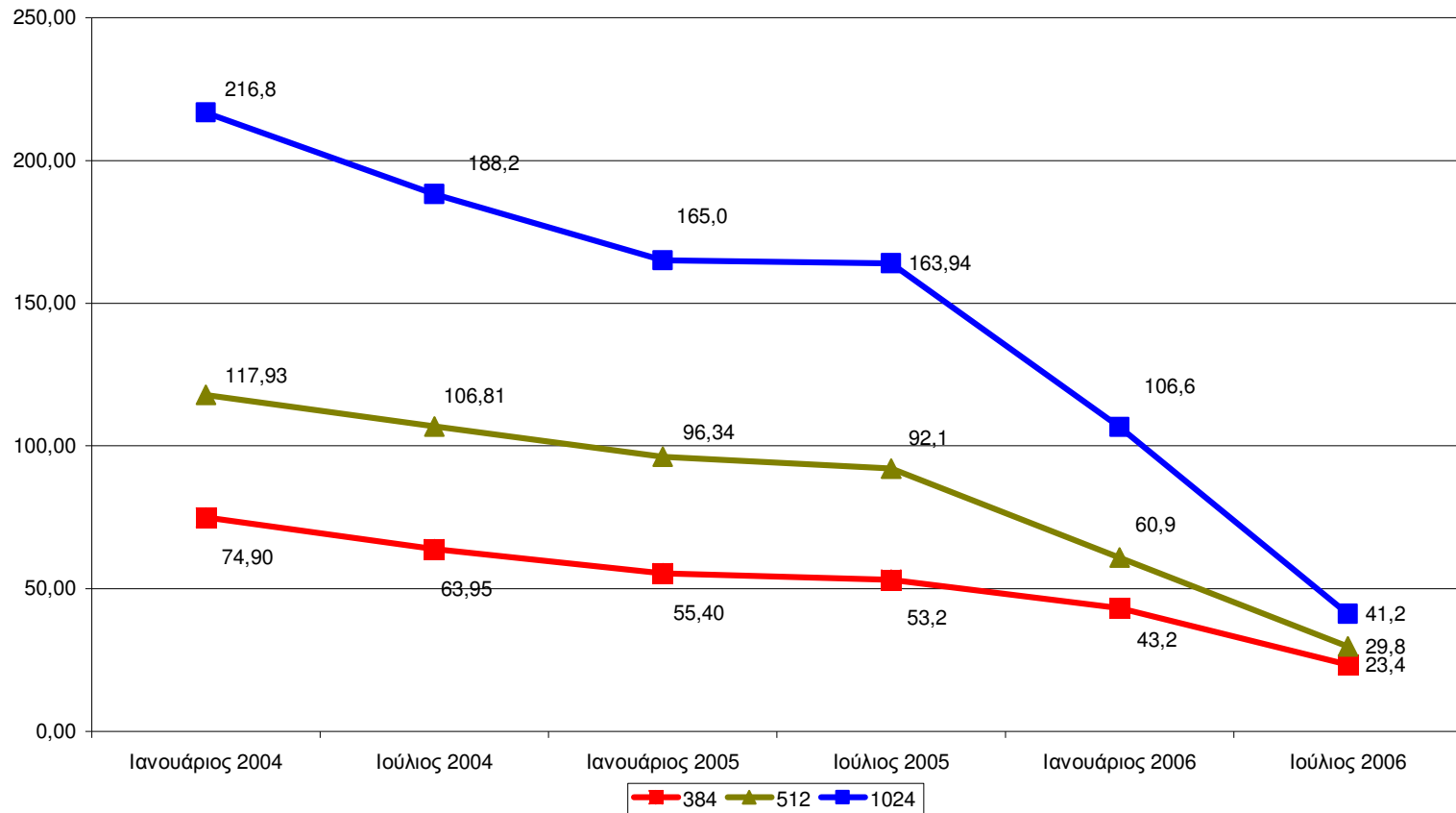
July 2006 as well as all previous penetration percentages are based on actual figures provided by the Hellenic Telecommunication and Postal Commission as well as from Greek network & service providers. 2.66% refers to around 296.800 operating ports while OTE announced at the end of July that more than the operating ports exceed the 300.000 limit. Given the continuation of the current growth rate pattern, we anticipate a penetration rate of 4,1% at the end of 2006 ceteris paribus

Greece is still in the last place in terms of both penetration rate and the y-o-y growth of this indicator in percentage points



Notes

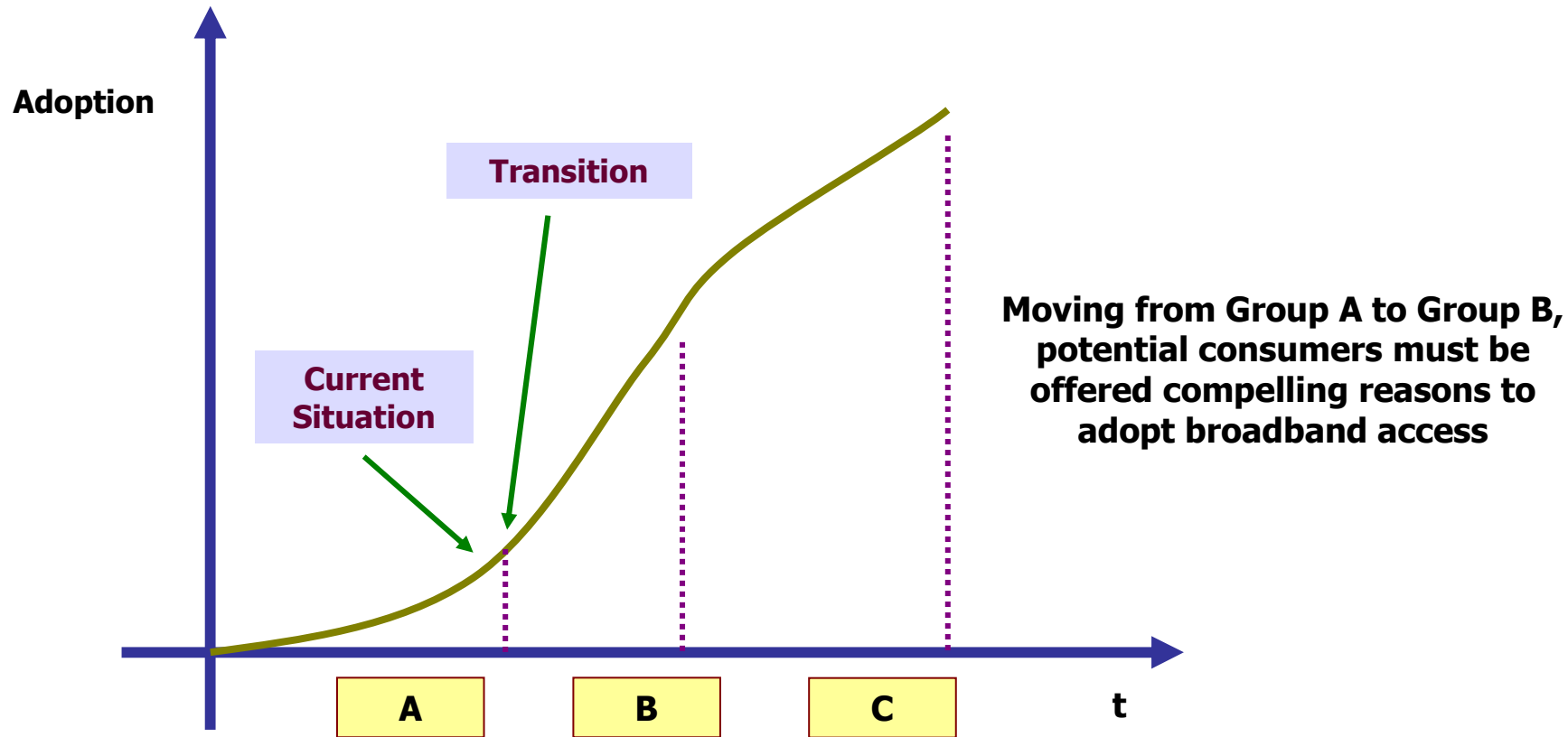
Still, Greece has doubled its y-o-y increase in penetration rate between Jan 2006-Jan 2005 and Jan 2005-Jan 2004. Based on actual data from the first semester of 2006, we expect an even better y-o-y increase in the penetration rate, i.e. around 2.5 percentage points.



Notes

1. Retail prices on all popular broadband speed packages continue to fall in the 1st semester of 2006 at an average rate of 20% to 30%. New customers' acquisition plans lead retail prices at even lower levels.
2. The main competition seems to move from the 384 speed package to the 512 speed package. Also, providers start to upgrade the retail broadband packages in terms of download speed.
3. Specific targeted programs such as "ΔΙΟΔΟΣ" aim at enhancing the penetration rate through the offer of packages in lower than market prices.

Based on the diffusion pattern we are entering the next phase (Early Adopters Group), where the potential consumers are seeking for compelling reasons to buy



Each group (A-C) is characterized by different adoption behavior i.e.:

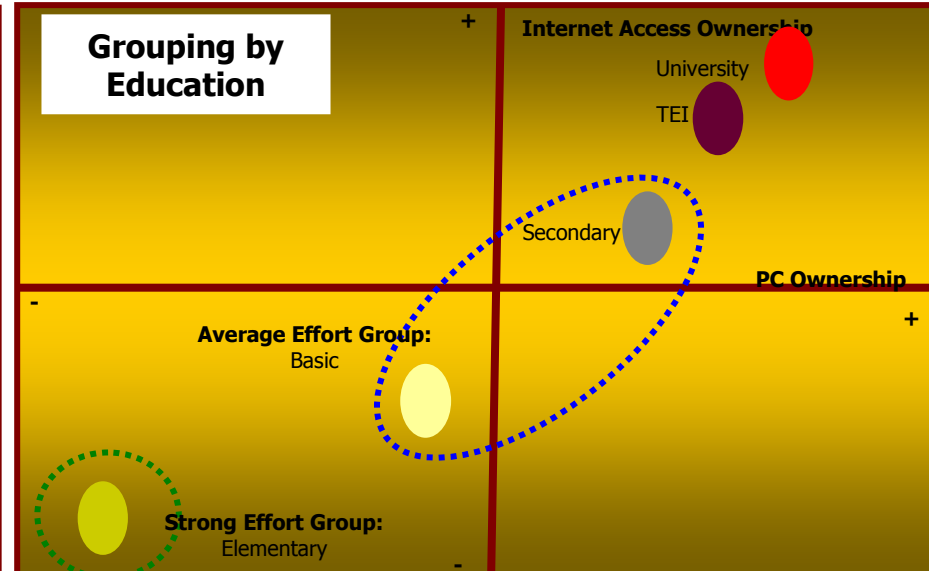
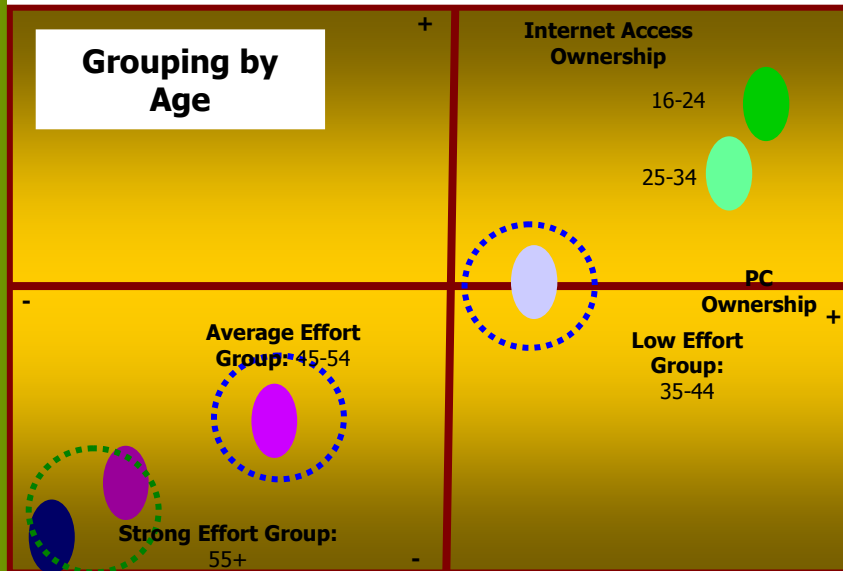
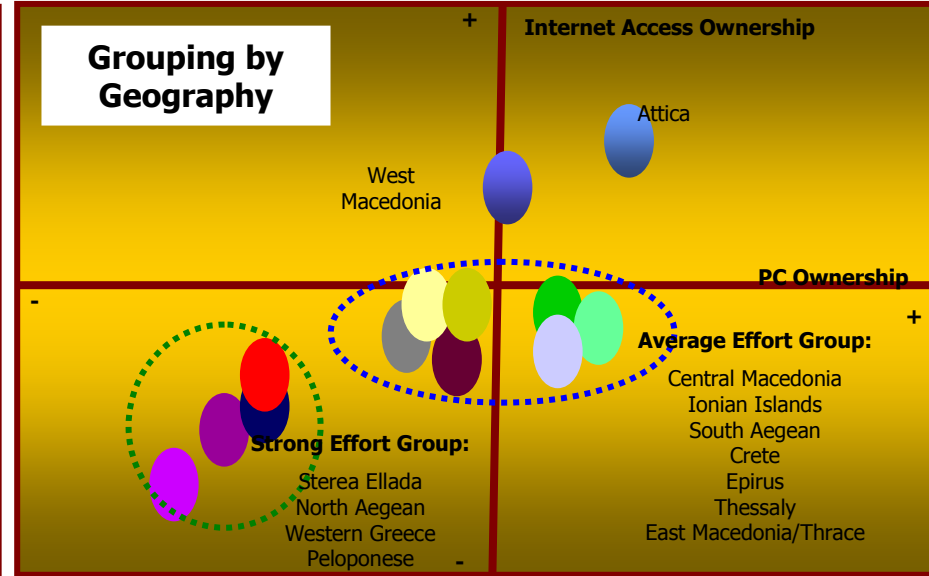
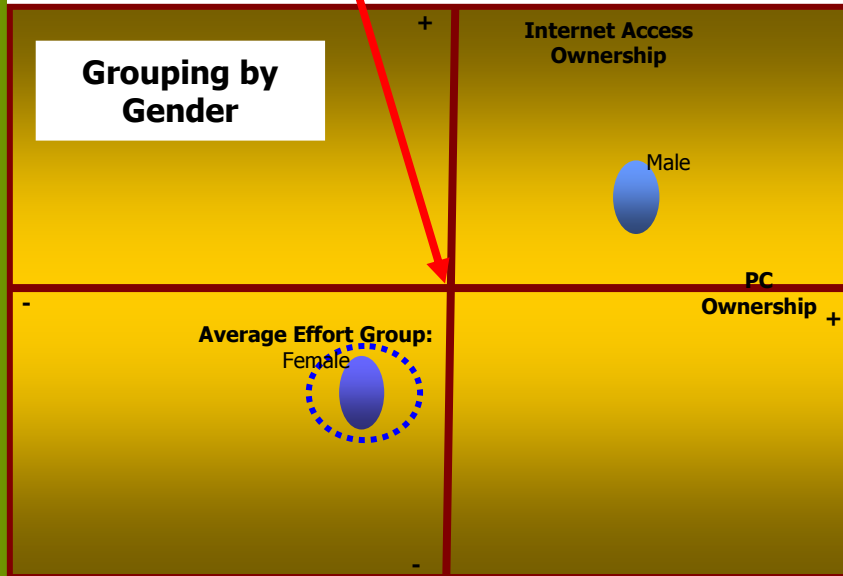
A: "Technology Enthusiasts" (2-3%)
eager to adopt promising new technologies

B: "Early Adopters" (12-14%)
seek distinctive advantages

C: "Early Majority" (32-36%)
seek technology standards

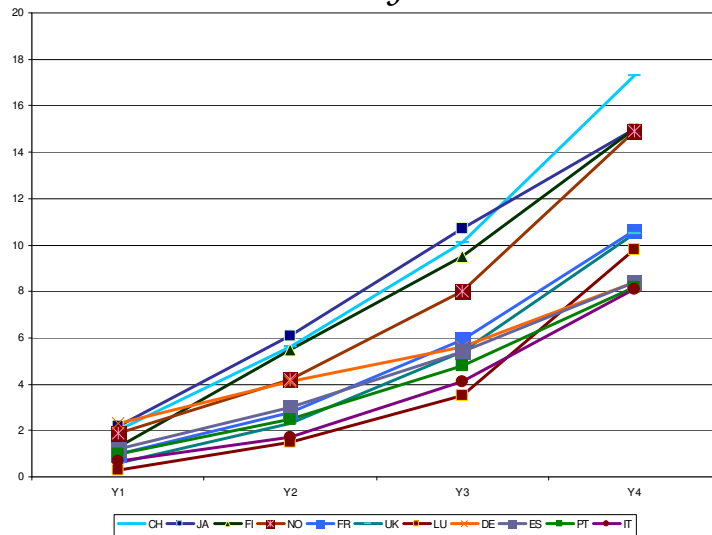
Average PC & Internet Ownership in Greece

○ *Most likely to buy*
○ *Laggards*

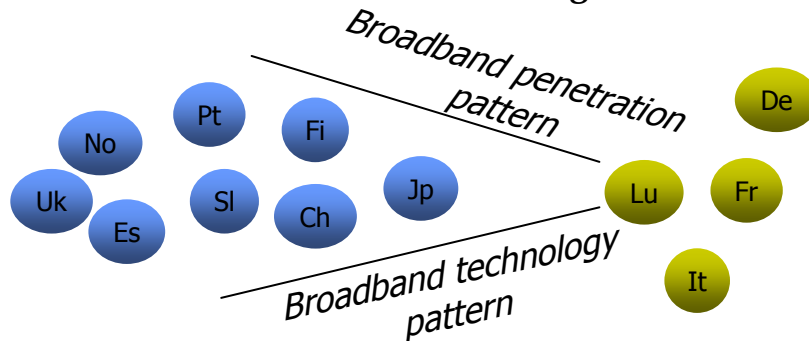


Looking at Countries with similar penetration pattern with Greece, we identified a number of policies that may be implemented

— EU countries 3-year evolution —



— EU countries Filtering —



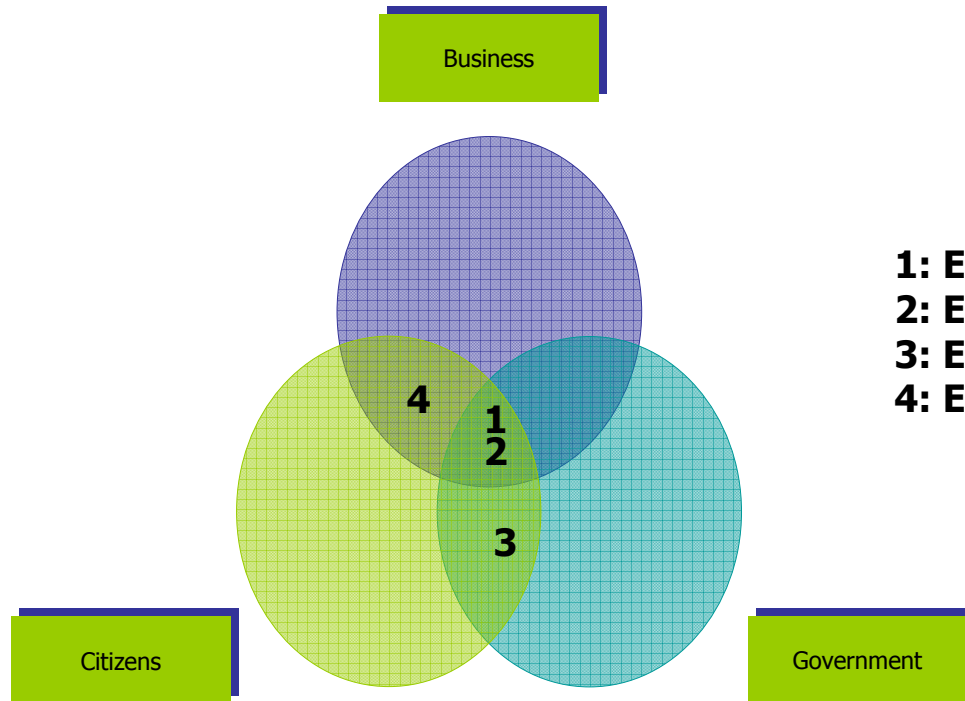
— Policies adopted by similar countries —

1. Multiple 2-Play and 3-Play broadband services development (Fr, It)
2. Increase of DSL access geographical coverage (Fr, It)
3. Internet usage promotion on female population (De)
4. Quality of Service standardization for all DSL-type access (Fr)
5. E-government services (De, It, Lu)
6. E-health services (De)
7. E-learning Services (De, It)
8. Digital signatures and E-cards initiatives (Fr, De, Lu)
9. Motivation for "smart" house infrastructure (It)
10. Training and technology awareness Programs (It, Lu)

Notes

1. The graph shows the broadband penetration path for 11 countries in 3 years time. Our interest lies in these countries because they accomplished broadband penetration of at least 8% in 2 yrs. Countries that followed the desired diffusion pattern are: Norway, Germany, Italy, Spain, Portugal and France. Also, Slovenia, not shown in this graph, followed this pattern between 2003-2005. Countries that exceeded it are Finland, Switzerland, Japan, UK and Luxembourg.
2. Since the focus is on households' penetration of broadband access and in Greece households acquire this access through DSL technology, countries' selection is further optimized based on similar broadband technology diffusion patterns. Thus, we distinguish the following 4 countries regarding their policies to increase broadband penetration: **France, Germany, Italy & Luxembourg.**

- EU COM (2006) 129 "Bridging the Broadband Gap" -

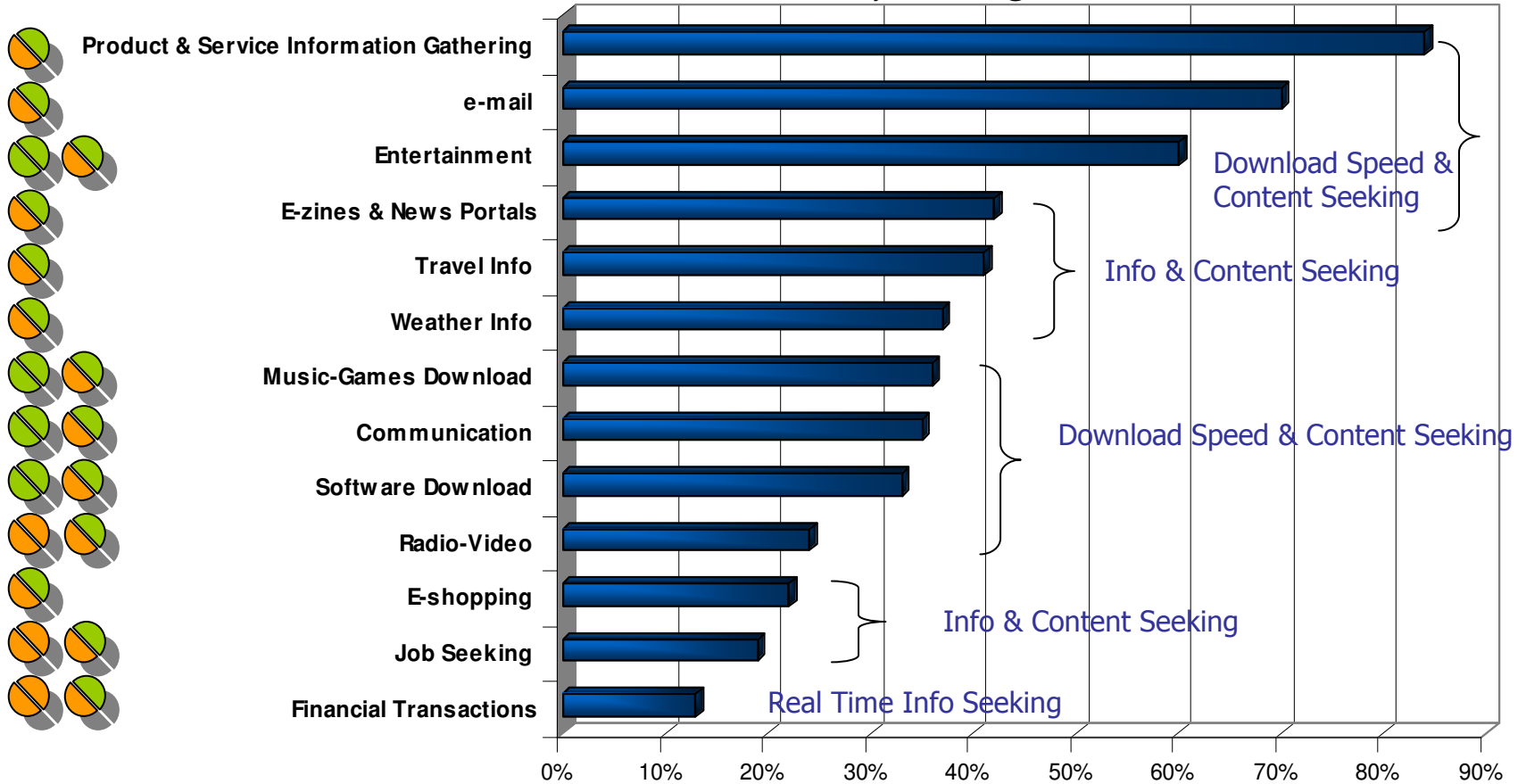


— Recommended Policies —



- 1: E-health & Telemedicine Services**
- 2: E-learning Services**
- 3: E-government Services**
- 4: E-business Services for Rural Areas**

Moreover, based on internet usage in Greece, there are a number of services that could have a commercial impact (although many of them may not be Greek origin)

— Reasons for using Internet in Greece —



Source: IS Observatory Survey, 2005

-  Service originating from Greece
-  Service originating internationally or globally

Major part of internet services do not have to be Greek origin



Thank you



<http://www.observatory.gr>