Technology - Evolution and Applications: How mobile broadband can boost broadband penetration in Greece

Digital Dividend : Challenges and Opportunities in the New Digital Era
Athens - 24th February 2009

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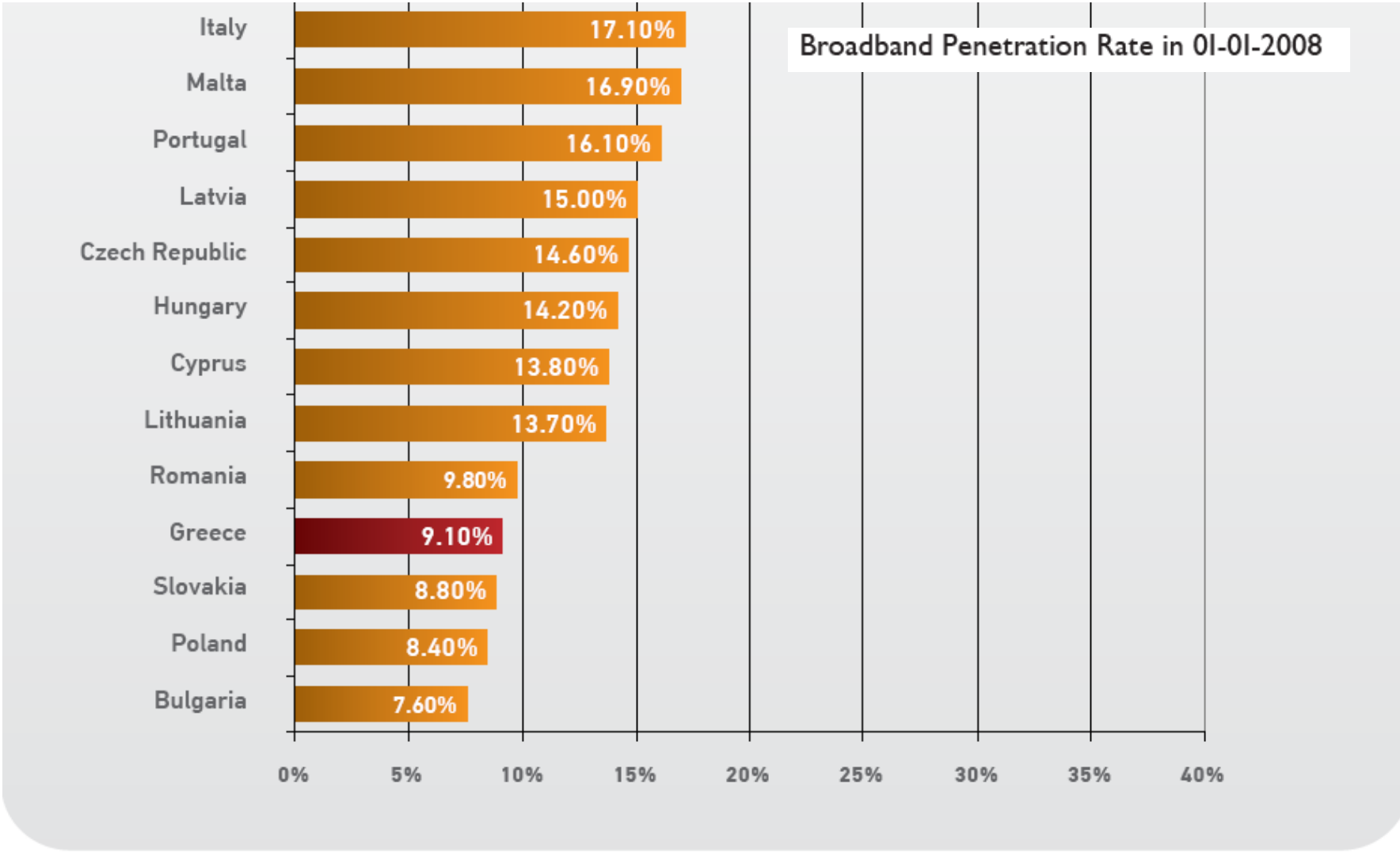
http://www.gsmworld.com/digital_dividend/

Brief History of the GSMA

- Founded in 1987 by 15 operators committed to the joint development of a cross border digital system for mobile communications.
- Became the global trade group for the mobile industry, representing the vast majority of mobile phone networks across the world
  - Now encompassing commercial, public policy and technical initiatives, ensuring mobile services work globally
- The Association's members now serve more than 3.5 billion customers
  - More than 750 operator Members across 218 countries
  - Over 200 Associate Members (manufacturers and suppliers)

The Problem : how to promote broadband connectivity to allow all Greek Citizens to take part in the knowledge economy and prevent social exclusion ?

Answer : to promote alternative infrastructure, by allowing a small portion of UHF (less than 20%) for mobile broadband



Source: 13th Report of the European Commission

Mobile Broadband – Long Tem Evolution : offering mobile “ADSL”

“With LTE, there is strong potential to generate vast economies of scale unmatched by any previous generation of broadband access technology. LTE could extend the high speed Internet access enjoyed by urban and suburban users today to isolated and rural areas.“

“The European industry foresees around 2 billion broadband users by 2012, of which two-thirds will be using mobile broadband.“

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The Opportunity for mobile broadband and UHF

- UHF spectrum (used for TV) is ideal for cost effective coverage and allowing economies of scale – identified internationally
- Can boost cell range by around 90% (compared to 2100 MHz)
- This means you only need one third of the cells for rural areas
- 44% of Greece has a population density of less than 300 people km^{-2} – ideal for UHF mobile broadband
- Can provide a cost effective means of serving communities where copper line lengths are too long or exchanges too small to make LLU cost effective
- Greece currently has nearly 3.5 million WCDMA users and just over 1.6 million HSPA users

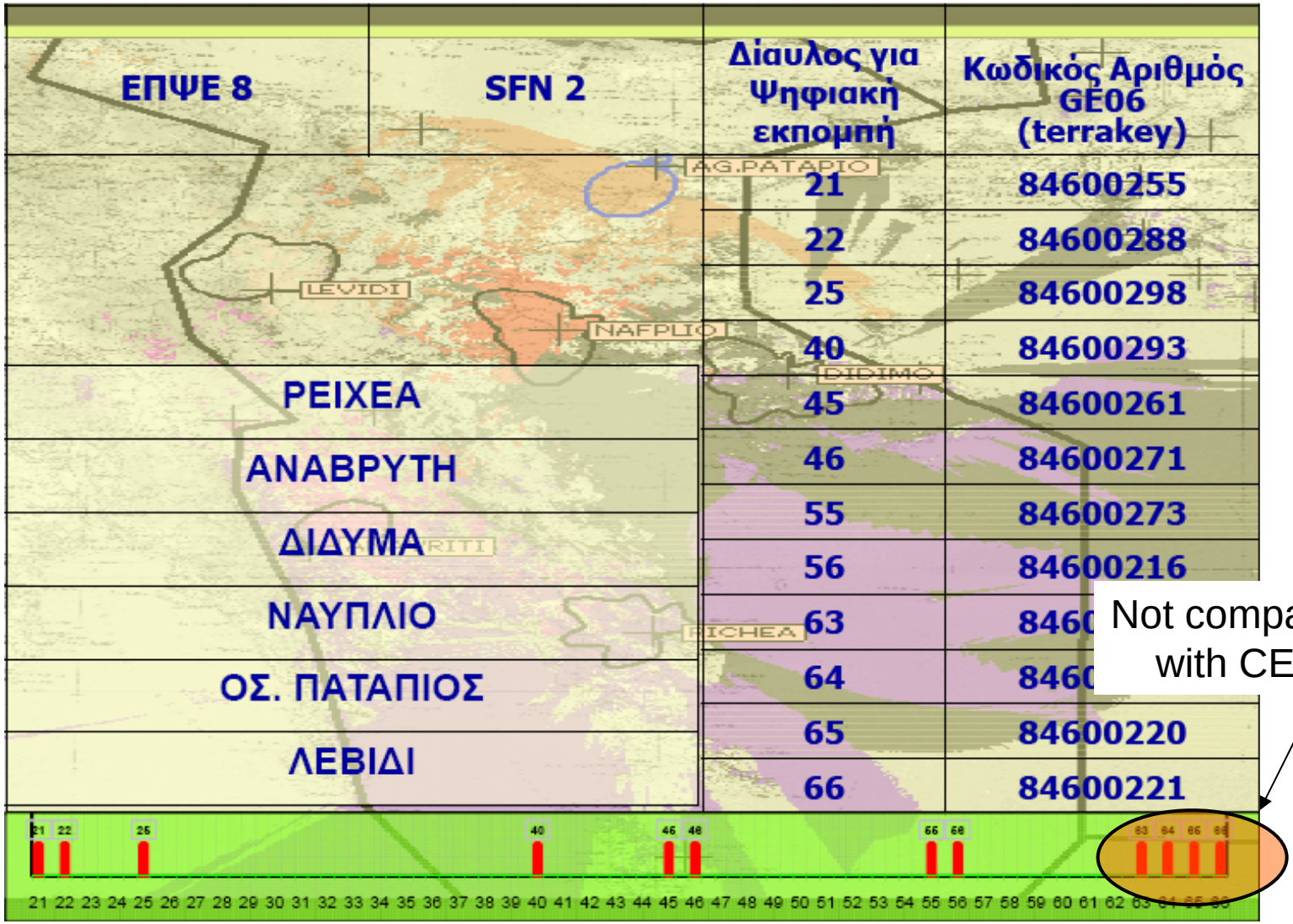
Spectrum needed is 790 to 862 MHz

Harmonised by ITU and CEPT

Greece needs to make this band available for mobile broadband to boost broadband penetration in rural areas

Europe is converging on 790 – 862 MHz for Digital Dividend spectrum

- ITU World Radiocommunication Conference in 2007 identified 790 to 862 MHz for 3G mobile
- EC has given a mandate to CEPT to develop a band plan for 790 to 862 MHz
- France, Switzerland, Sweden, Finland have opted for 790 to 862 MHz
- Germany is allowing trials of HSPA in 790 to 862 MHz
- UK is consulting on this option
- Ireland commissioned a study showing there should be @100 MHz for the Digital Dividend
- GSMA has spoken to a number of Administrations that are actively considering this band



Conclusions

- Access to harmonised spectrum in UHF key to delivering broadband widely and helping to meet Lisbon targets and complement fixed ADSL – 790 to 862 MHz
- Greece's international competitiveness and her citizens stand to benefit greatly from encouraging mobile broadband
- Important for rural sustainability and economic growth and jobs
- A social commodity or right – lack of it will lead to social exclusion
- There is sufficient spectrum for both broadcasters and mobile/other services

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