



Mobility in the World of Convergence : *Fiction or Reality ?*

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CUSTOMER need = CONVENIENCE = MOBILITY = CONVERGENCE

Customer



Location Independent

At home

At office

Outside

Abroad

Access Independent



Multiple Applications

Education

Messaging

Interactive Games

Voice

Browsing

Working

Video

Health

Shopping

Advertising

Location Services

Information

Banking

Social Networking

Conferencing

Music

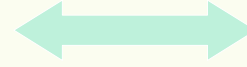
Convergence is customer driven & creating new opportunities



A Day in the Converged life of ...



At Home: 7.30am
At breakfast, checking work emails and scheduling meetings



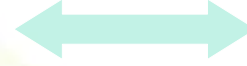
Device screen



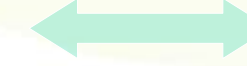
At Office: 11.00am
During coffee break, watching live video of children playing



Outside: 1.00 pm
At lunch, interacting through facebook with friend in the UK



Commuting: 8.00 pm
In train, watching TV news and pre recorded program from home TV



Mobility adding new possibilities



- **4bn** mobile users worldwide (2009)
- By 2010: Mobile broadband connections > fixed broadband connections
- By 2014: ~ **80%** of broadband connections will be mobile
- By 2020: ~ **50 billion devices** offering broadband connectivity

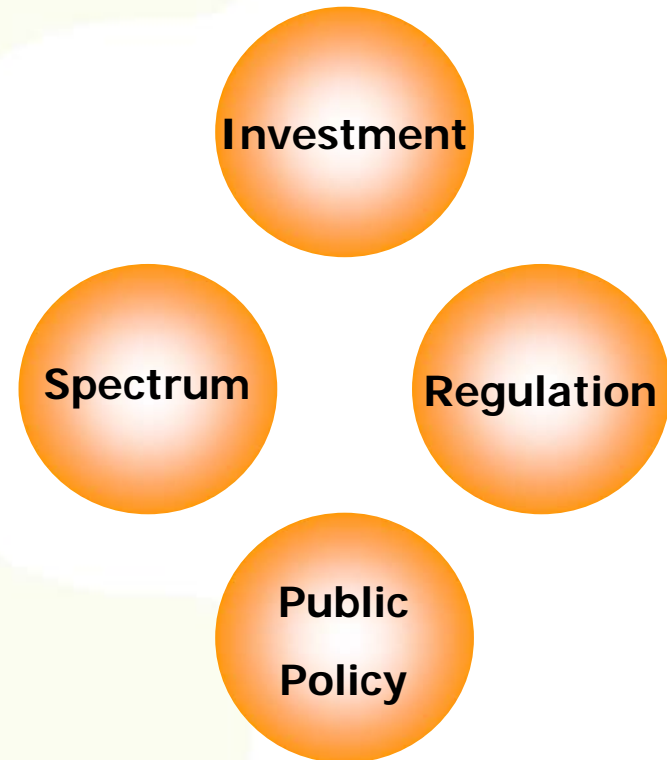
Mobility enhances personalisation and “on the go” convergence

Mobile Broadband Convergence : Fiction or Reality ?

Enablers are there...



...but there are still challenges



Overcoming challenges will open the path to mass adoption

Mobile Broadband Convergence : Enablers 1/2

Technology, Devices & Content

Technology

- Forecasts for rapid rise in Mobile Broadband speeds

LTE	Up to 170Mbps
HSPA+	Up to 84Mbps
HSPA Today	Up to 14Mbps

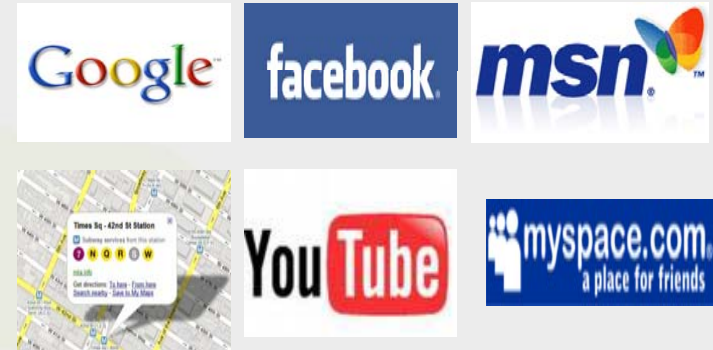
- Forecasts for rapid rise in Mobile Capacity *

- **X 10-15** over the next 5 years
- **X 30-40** by 2015 &
- **6GB** per month for 25% of households by 2015

Devices



Content



Availability of speed and devices support demand for richer content

Mobile Broadband Convergence : Enablers 2/2

Affordable Prices

Today, Prices are 12 times lower vs. 2006 (>90% decrease)



COSMOTE Tariff Plans : Minimum cost per MB, for wireless Internet access

- Offers with unlimited usage for familiarisation
- Promotions with laptops
- Special offers for students

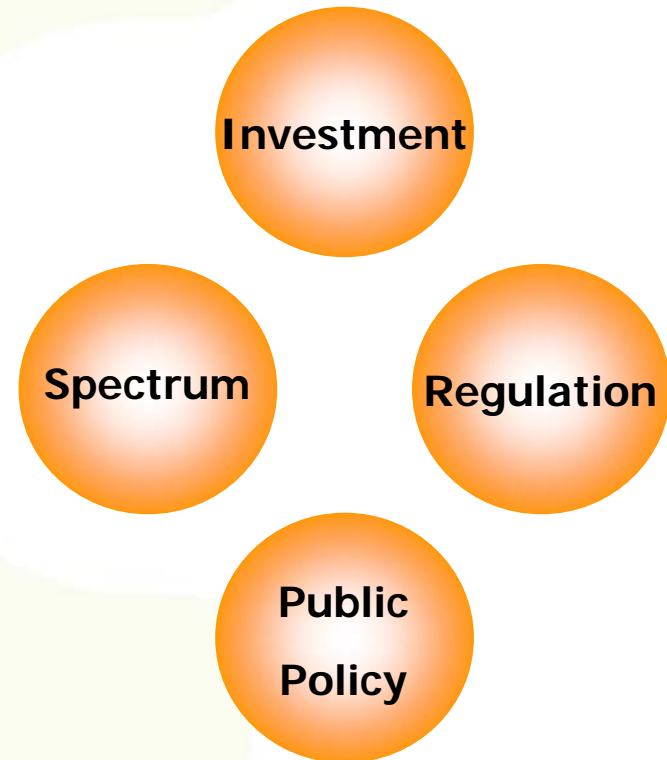
Offerings are competitive in terms of price, quality and speed

Mobile Broadband Convergence : Fiction or Reality ?

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Mobile Broadband Convergence : Challenges 1/3

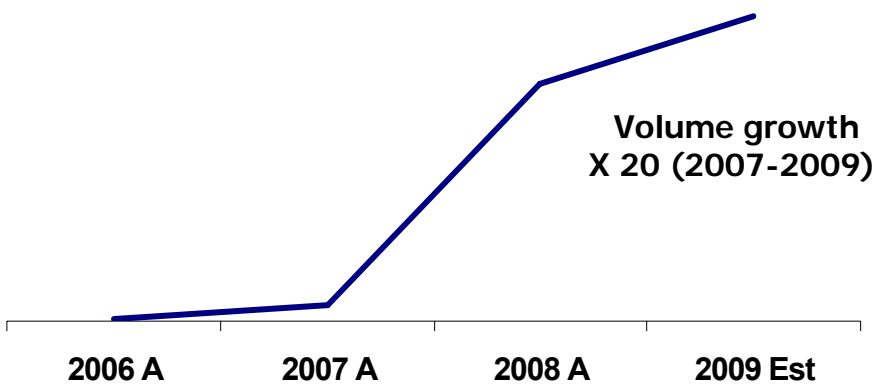
Investments

COSMOTE TECHNOLOGY EVOLUTION

	Downlink	Uplink
2009 – HSPA 21	21 Mbps *	5.8 Mbps *
2008 – HSPA 7,2	7.2 Mbps *	1.5 Mbps *
2007 – HSPA 3,6	3.6 Mbps	384 Kbps
2006 – HSDPA 1,8	1.8 Mbps	64 Kbps
2004 – 3G UMTS	384 Kbps	64 Kbps
2001 - GPRS	45.2 Kbps	45.2 Kbps

*Maximum Nominal speed

COSMOTE Internet Access Traffic (MB)



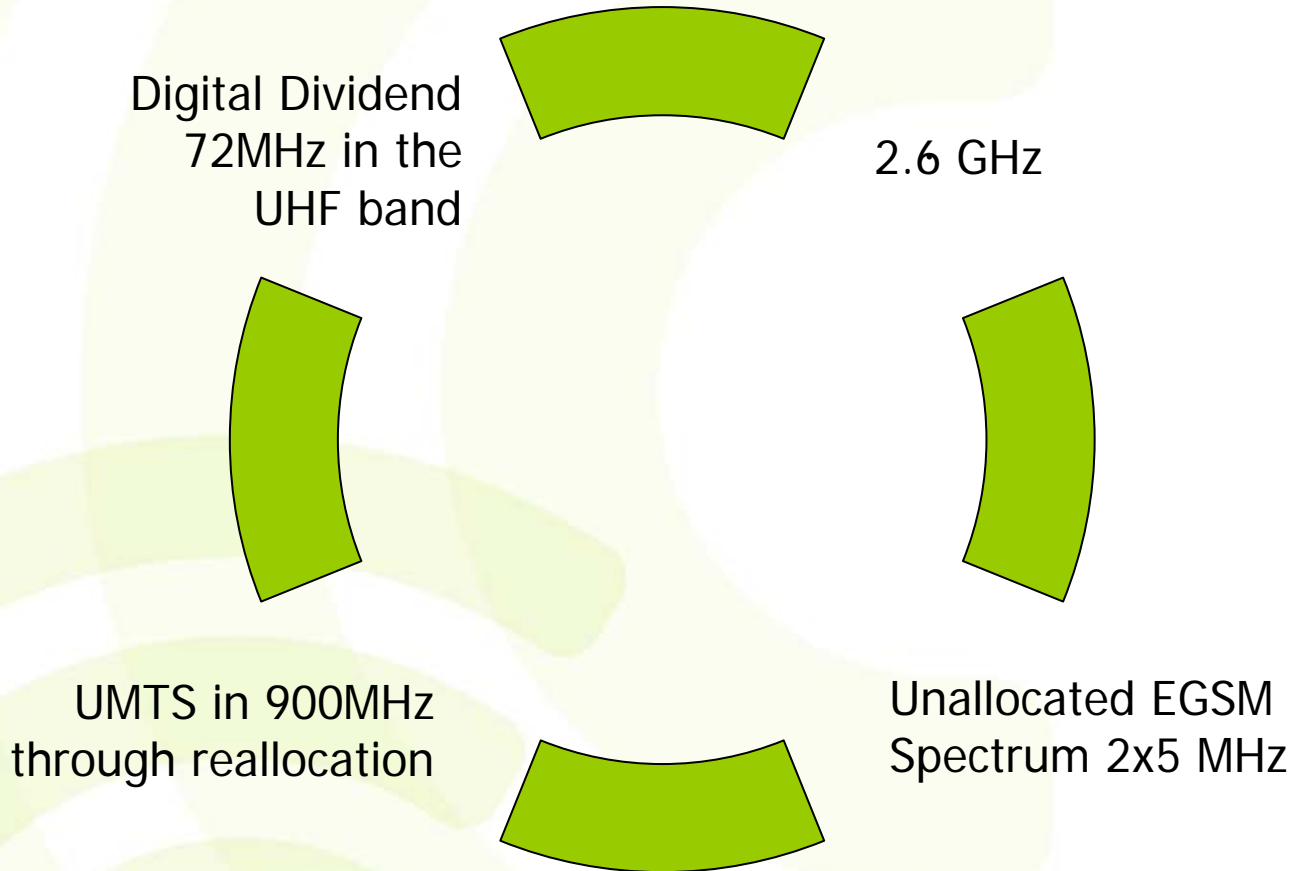
Network Investments in Mobile Broadband

- €160m for 3G Licence
- ~ €150m for infrastructure up to end of 2008
- Planned investment ~ €150m for 2009-11

Maintaining Network excellence is a Strategic Priority

Mobile Broadband Convergence : Challenges 2/3

Spectrum Availability and Allocation



Allocation of Spectrum is key to developing high bandwidth services

Mobile Broadband Convergence : Challenges 3/3

Regulation & Public Policy

REGULATION

Base stations

- Licensing process - antenna phobia
- Greece has the most complex and lengthy BTS licensing regime →

No over-regulation

- Need for mobile sector to fund large-scale investment
- Pressures on mobile industry – MTR cuts, roaming

PUBLIC POLICY

Mobile Tax

- Aggregate mobile tax in Greece is the highest in the EU →
- Greece imposes tax on mobile broadband (disincentive)

E-Society

- ICT literacy, public take up of broadband, e-inclusion, pc and laptop penetration, e-public services

Mobile Operators facing growing barriers to Innovation

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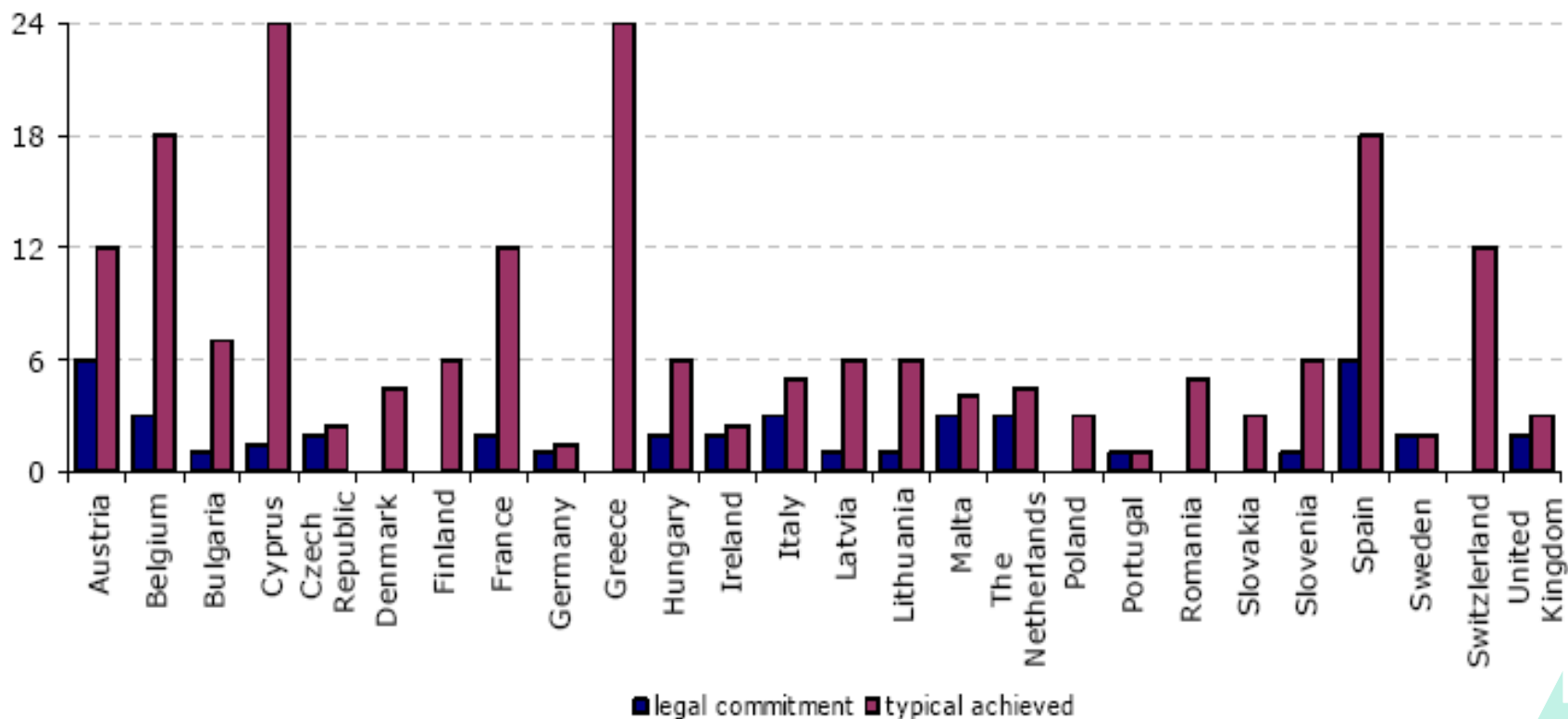
Reality if Challenges Successfully Addressed !



Thank you

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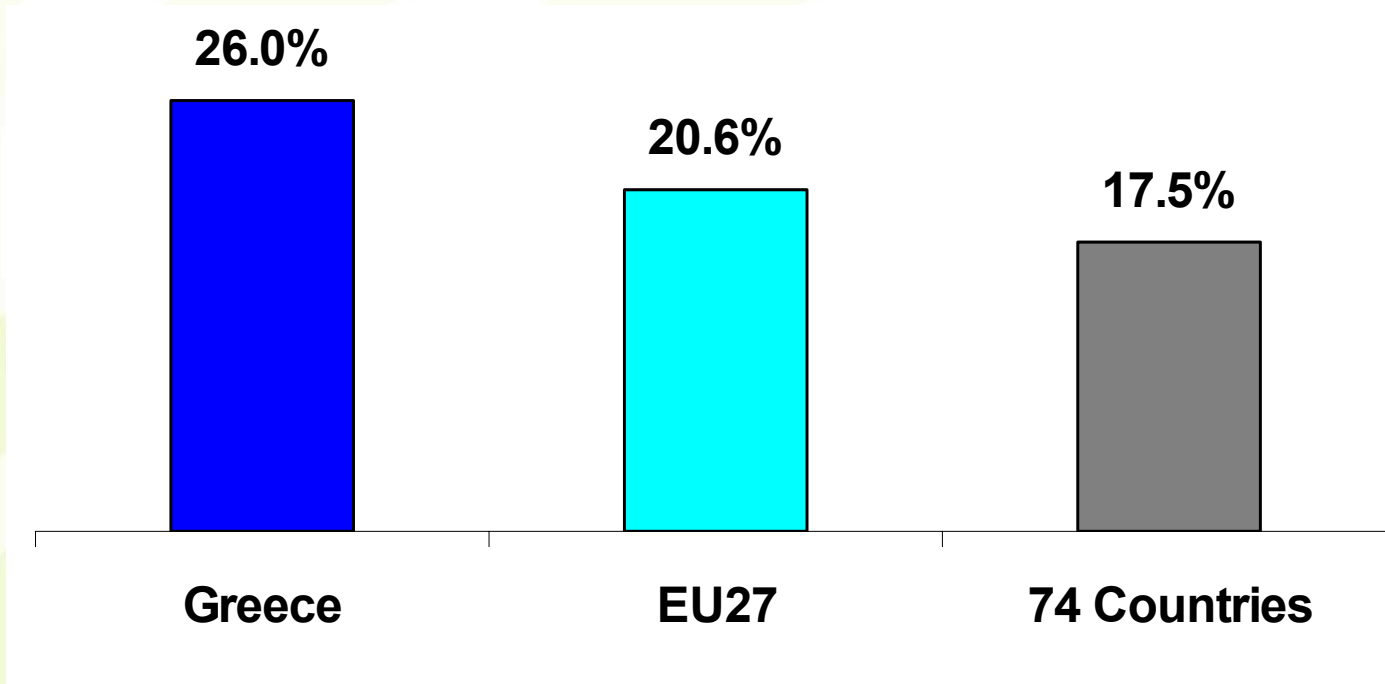
Comparison between the Legal Time Commitment and the Typical BTS Licensing Schedule achieved by country in Europe (months)



Source: Ovum for GSME Study

Tax as % of Total Mobile Ownership Cost

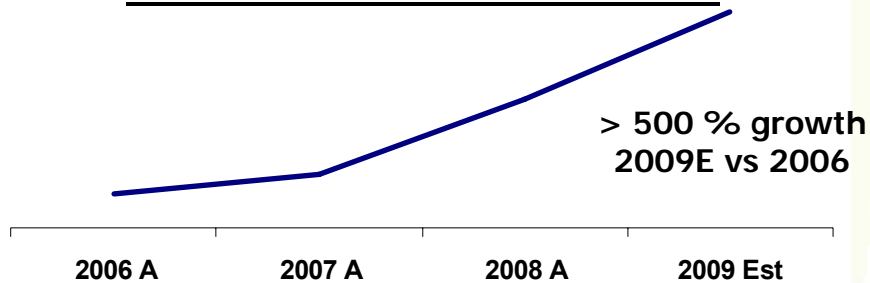
- Greece has the highest taxation (VAT+ Mobile Tax) in all of the EU



COSMOTE is positioned to grasp opportunities

SUCCESS STORY : **Internet on the Go**

COSMOTE Internet Access Subs



Looking ahead...

- Benefits from partnership with T-Mobile already evident



- More synergies to come...
 - Web n Walk
 - Connected Life and Work
 - LTE

COSMOTE sees the world through our customer...with convergence !