Lecture 8: European information society

European Media and Communication Policies

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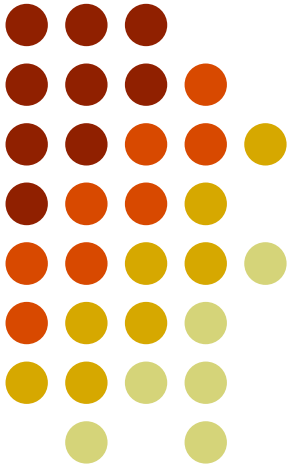
Spring 2008



Today's programme

- Final lectures
  - (http://blogs.helsinki.fi/emcp2008/)
- Courseworks
- Course assesment form:
  - (https://elomake.helsinki.fi/lomakkeet/10244/lomake.html)
- Questions?

This time

- European information society policy: background
- iEurope 2010: overview
  - Theme: digital divide
  - Theme: convergence

Information society: background

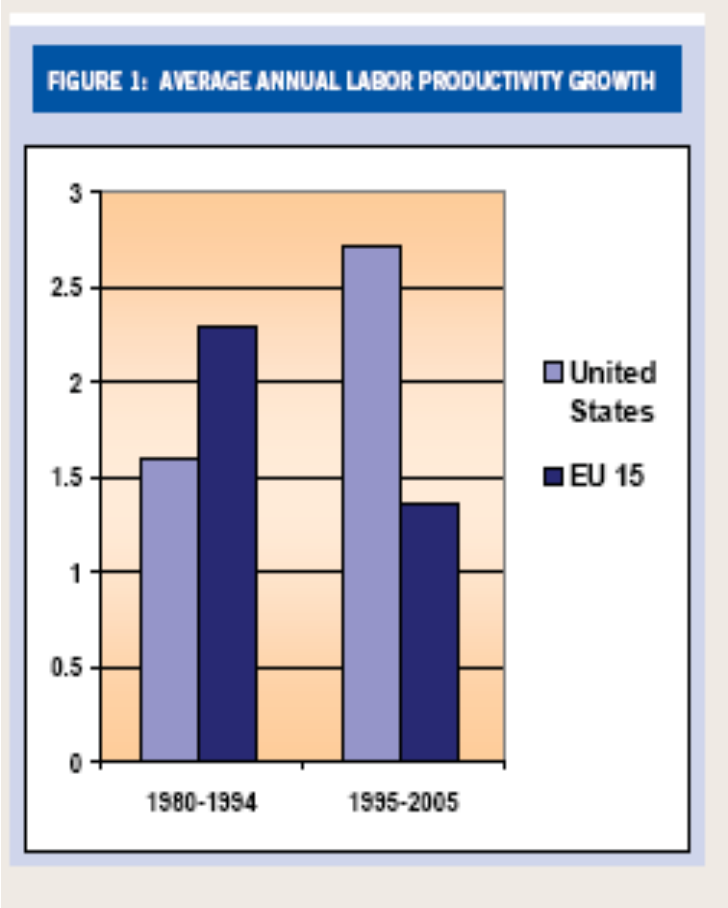
- Transformations in production and economy: from industrial society to service society to information society
  - Basic dynamics: economic growth
  - Industrial society: expansion of mass markets; extensive mode of production; economies of scale; main source of productivity: human labour
  - Information society: segmentation of markets; intensive mode of production; innovations; economies of scope; main source of productivity: ICT

Information society: convergence

- Definition: three different phases and technologies amalgamate:
  - Content services
  - Networks
  - Devices
- “For example, the PlayStation 2 is not only a games console, but also a CD player, DVD player and Internet connector. Mobile phones are another good example, in that they increasingly incorporate digital cameras, mp3 players, camcorders, voice recorders, and other devices.”

European information society: two sides

- Europe: lower productivity than USA & Japan
  - The EU-US productivity gap is due to lower productivity in sectors with high growth potential
  - Almost all industries with the highest rate of value added growth are related to the new ICTs



ICT Research in EU and US

ICT R&D[2]	EU-15	US	Japan
Private sector investments	23 B€	83 B€	40 B€
Public sector investments	8 B€	20 B€	11 B€
Inhabitants	383 m	296 m	127 m
Investments / inhabitant	80 €	350€	400€
ICT R&D as % Total R&D	18%	34%	35%

Table 1 - Investment in ICT Research (2002)

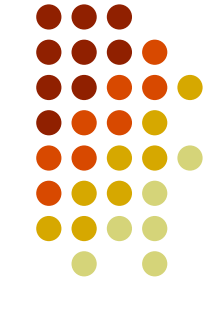
EU's answer

- Cure:
  - Full utilisation of new ICTs
- Earlier:
  - National competitiveness supported by national industrial policies (state ownership in major industries; public subsidies etc.)
- Today:
  - European competitiveness supported by information society policies (Lisbon strategy 2000)

Lisbon strategy (2000)

- The Union “set itself a **new strategic goal** for the next decade: to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.” (http://www.etuc.org/a/652)
- Updated 2005: ”Partnership for Growth and Jobs”

European information society: three main areas



- i2010 – A European Information Society for growth and employment (2005): three main areas
  - A single European Information Space: reforming regulatory framework
  - Innovation and investment in research: support to ICT research and development
  - Social inclusion: better public services and quality of life

1. A single European Information Space

- The creation of a Single European Information Space needs to address at the outset four main challenges posed by digital convergence:
  - **speed:** faster broadband in Europe services to deliver rich content such as high definition video;
  - **rich content:** increased legal and economic certainty to encourage new services and on-line content;
  - **interoperability:** enhancing devices and platforms that "talk to one another" and services that are portable from platform to platform;
  - **security:** making internet safer from fraudsters, harmful content and technology failures to increase trust amongst investors and consumers.
- ***Objective 1: A Single European Information Space offering affordable and secure high bandwidth communications, rich and diverse content and digital services.***

2. Innovation and investment in research

- Investment in research and innovation is crucial for the ICT sector to continue delivering jobs and growth in the short and long term.
- Today, Europe is still seriously under-investing in ICT.
- **i2010 will therefore actively seek to reduce barriers between research results and economic rewards**
- ***Objective 2: World class performance in research and innovation in ICT by closing the gap with Europe's leading competitors.***

3. Inclusion, better social services

- “As the use of ICT grows, so does its impact on society. i2010 recognises this in three ways:
  - making sure that ICT **benefit all citizens;**
  - making **public services better, more cost effective and more accessible;** and
  - improving **quality of life.”**

- ***Objective 3: An Information Society that is inclusive, provides high quality public services and promotes quality of life.***
- Three ”flagship initiatiatives” for the quality of life: the needs of the ageing society; safe and clean transport; and cultural diversity

Flagship initiatives

- “The first initiative will be on **caring for people in an ageing society** addressing technologies for wellbeing, independent living and health.
- The second will be on the **intelligent car: smarter, safer and cleaner** addressing environmental and safety issues arising from increased road use.
- The third will be on **digital libraries** making multimedia sources easier and more interesting to use. It will build on Europe’s rich heritage combining multicultural and multilingual environments with technological advances and new business models.”

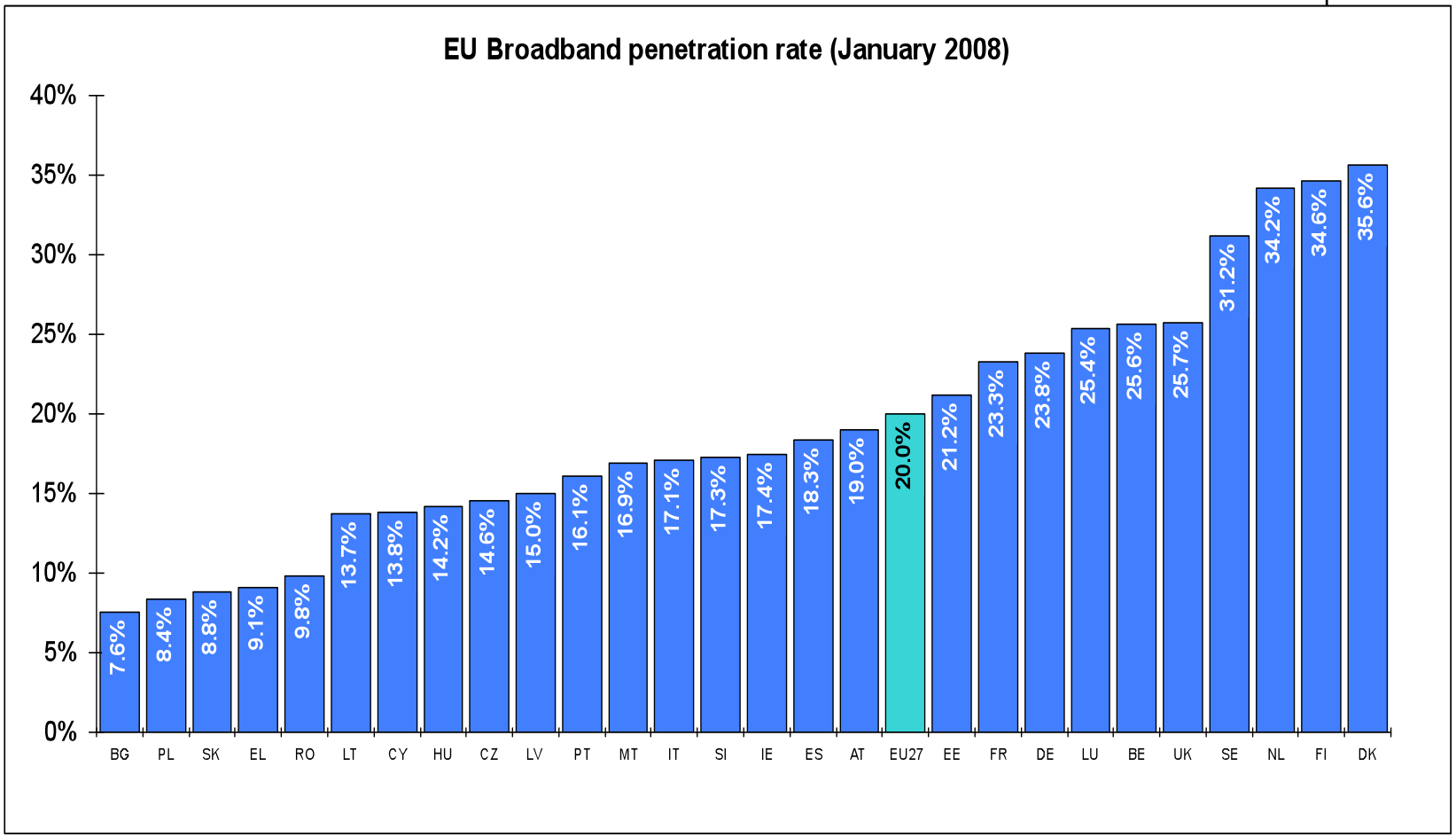
i2010 – Report 2007: Digital divides

- Yearly review of all three main areas
- Emphasised in ”Inclusion”:
  - Access divide (early digital divide): have vs. have-not
  - Usage divide (primary digital divide): users vs. non-users
  - Quality divide (secondary digital divide): low vs. high users

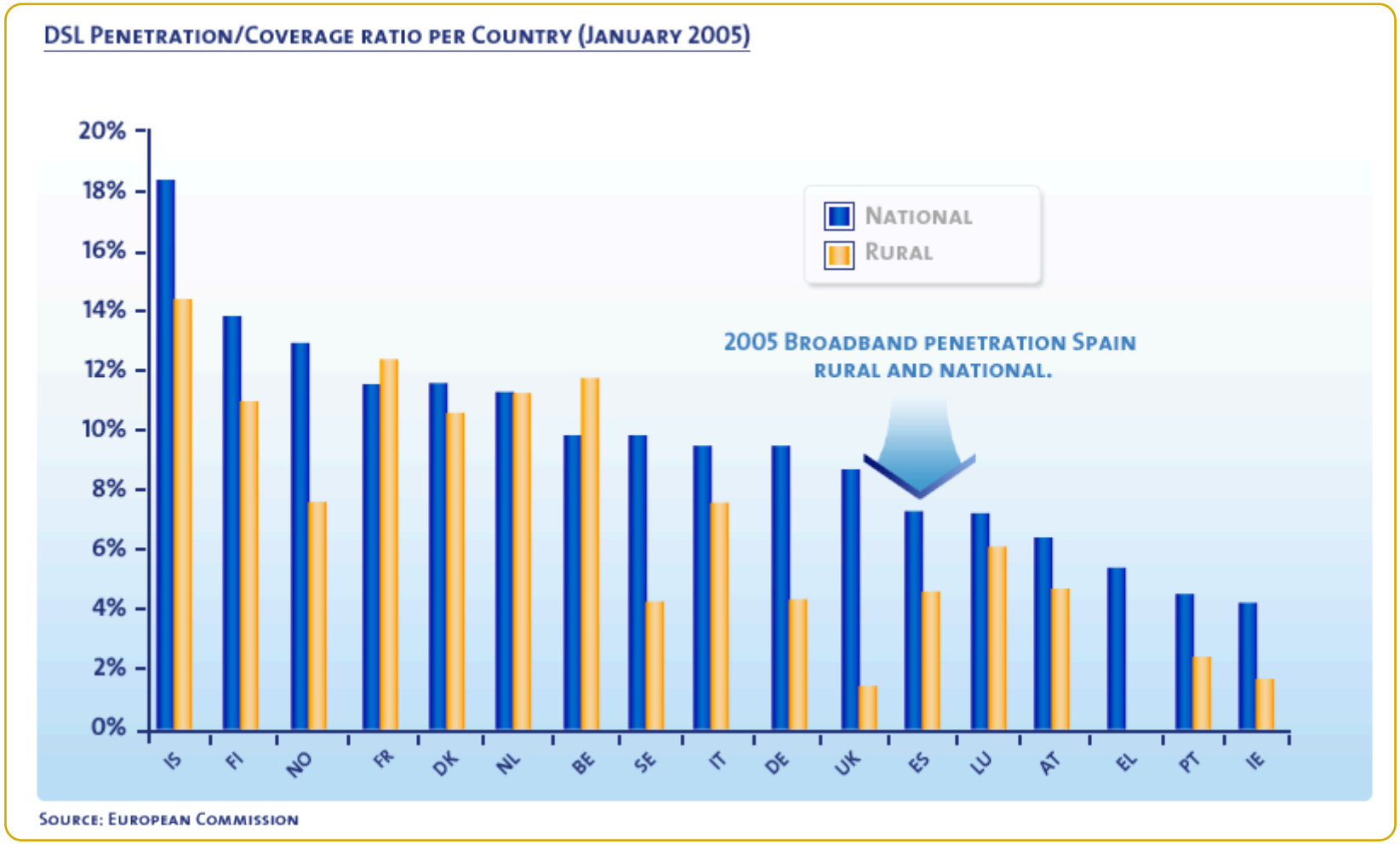
1. Access divide

- Increasing supply of broadband connections
- Decreasing influence of geographical and economic exclusion
- Quality and speed of connection is still a problem in isolated and remote areas
- As new technologies develop, the divide however stays

Geographic divide in broadband



Starting point



2. Usage divide

- Priority groups:
  - People with disabilities – has been focussed
  - Elderly people – less consideration
  - Unemployed – successful policies
  - Ethnic minorities – not enough attention

Usage divide per age and education

Regular Internet use (% of population) in EU25 in 2006				
	Education attainment			
age	**average**	**low**	**medium**	**high**
average	47	25	53	77
age 16-24	73	67	76	90
age 25-54	54	25	56	83
Age 55-74	20	7	27	53
Source: Eurostat 2006				

3. Quality of use

- Not effectively addressed
- Will be tackled later
- Related to issues in eDemocracy and eParticipation
- Related also to emergent competencies (social computing/social media) (see http://www.rossdawsonblog.com/Future_of_Media_Report2007.pdf)

Brief overview: convergence today

- Convergence is in the core of European information society policy
- Main elements:
  - content services
  - networks
  - devices

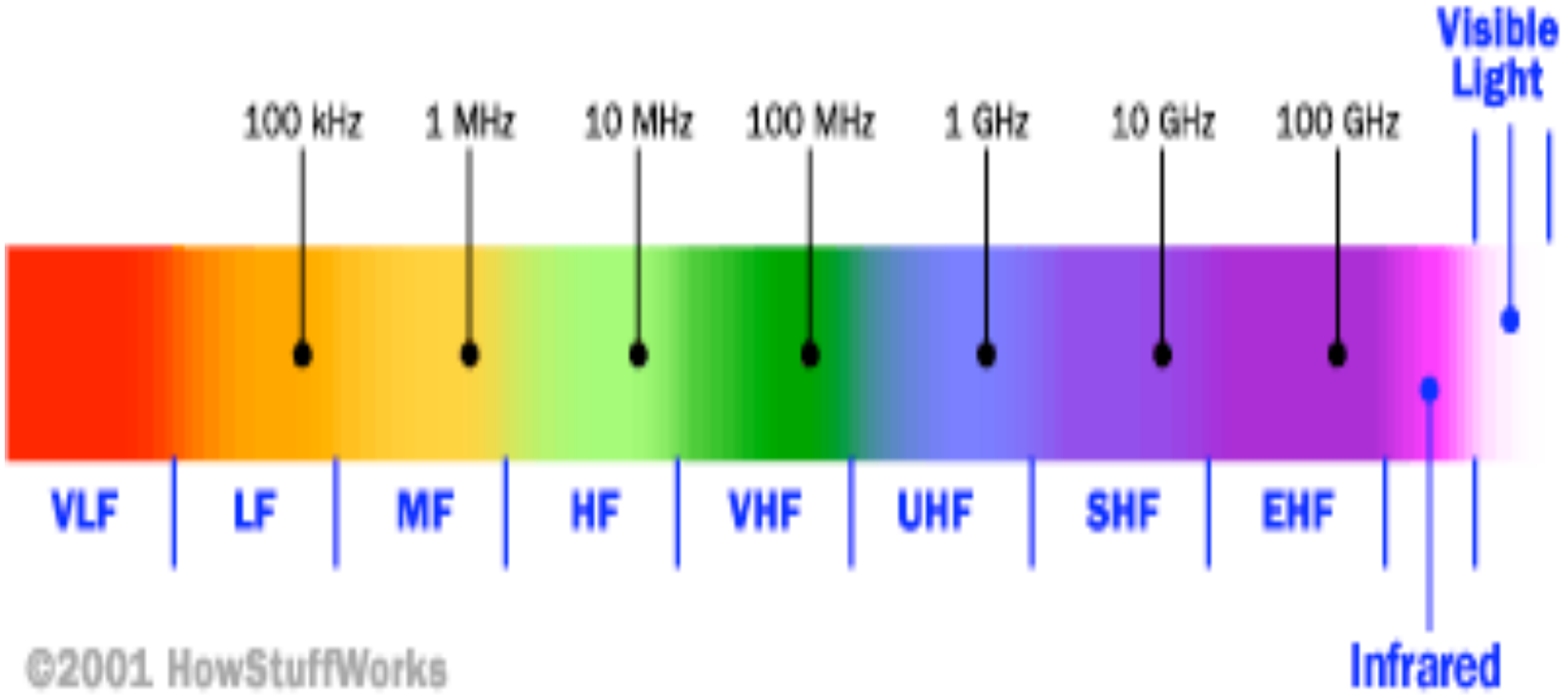
1. Digital content
Market value and penetration

	2005		2010	
	Revenue (€m)	% of sector	Revenue (€m)	% of sector
Music (online and mobile)	196	2,0	1 794	20,4
Movies (VOD)	30	0	1 269	7
Games (online, mobile)	699	11,2	2 302	33,4
TV programmes (VOD and digital advertising)	4,5	na	689	na
Publishing	849	2	2 000	5,4
Radio	15	0,3	250	4,8
Total	1 793		8 303	
Source: Interactive content and convergence, Commission Services 2006				

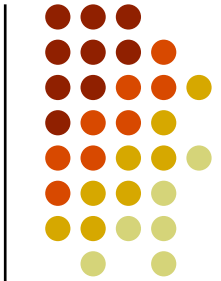
2. Networks

- Distribution technologies:
  - Broadband internet (TCP/IP; from 512 kbps)
  - 3G mobile telephony
  - Digital television
- Distribution infrastructure:
  - Terresterial
  - Cable
  - Satellite
- Distribution spectrum (cf digital dividend):

- **Radio Frequencies**



The use of spectrum



Extr. low frequency	ELF	3 to 30 Hz	Communication with submarines
Super low frequency	SLF	30 to 300 Hz	AC power grids (50 hertz and 60 hertz)
Ultra low frequency	ULF	300 Hz to 3 kHz	Communications with mines
Very low frequency	VLF	3 to 30 kHz	Audible range 20-20 kHz
Low frequency	LF	30 to 300 kHz	International broadcasting, navigational beacons
Medium frequency	MF	300 to 3000 kHz	AM broadcasting
High frequency	HF	3 to 30 MHz	Shortwave
Very high frequency	VHF	30 to 300 MHz	FM broadcasting, broadcast television, aviation
Ultra high frequency	UHF	300 to 3000 MHz	broadcast television, mobile telephones, wireless networking, microwave ovens
Super high frequency	SHF	3 to 30 GHz	wireless networking, radar, satellite links
Extremely high frequency	EHF	30 to 300 GHz	microwave data links, radio astronomy, remote sensing, advanced weapons systems

3. Devices

- Criteria:
  - Videostream
  - Interactivity
  - Mobility
  - Security
- http://ec.europa.eu/information_society/industry/broadcasting/mobile/index_en.htm
- http://www.youris.com/Society/Your_Guide_around_Town.kl
- http://www.youris.com/Technologies/Beyond_UMTS.kl
- http://www.mobiilitv.fi/

Future: i2010 mid-term review 2008

- "The **mid-term review** of the i2010 strategy aims **to ensure that i2010 continues to be a valid reference framework for Europe's information society and media policies**, as the field of information and communication technologies (ICT) changes fast."
- Launched in March 2007 (The Second Annual Report on i2010), to be completed in 2008.
- The **key themes** to be debated during the review include:
  - Assessing the policy implications of emerging trends in networks and the internet (for example, ultra high-speed networks, web 2.0, the Internet of Things, Grids);
  - Developing a user perspective;
  - Improving growth conditions by creating an internal market for online services that does not stop at the national borders. "

- Many thanks!

EU27 vs. US

Graph 1.5: Decomposition of average hourly productivity growth 2000-2005

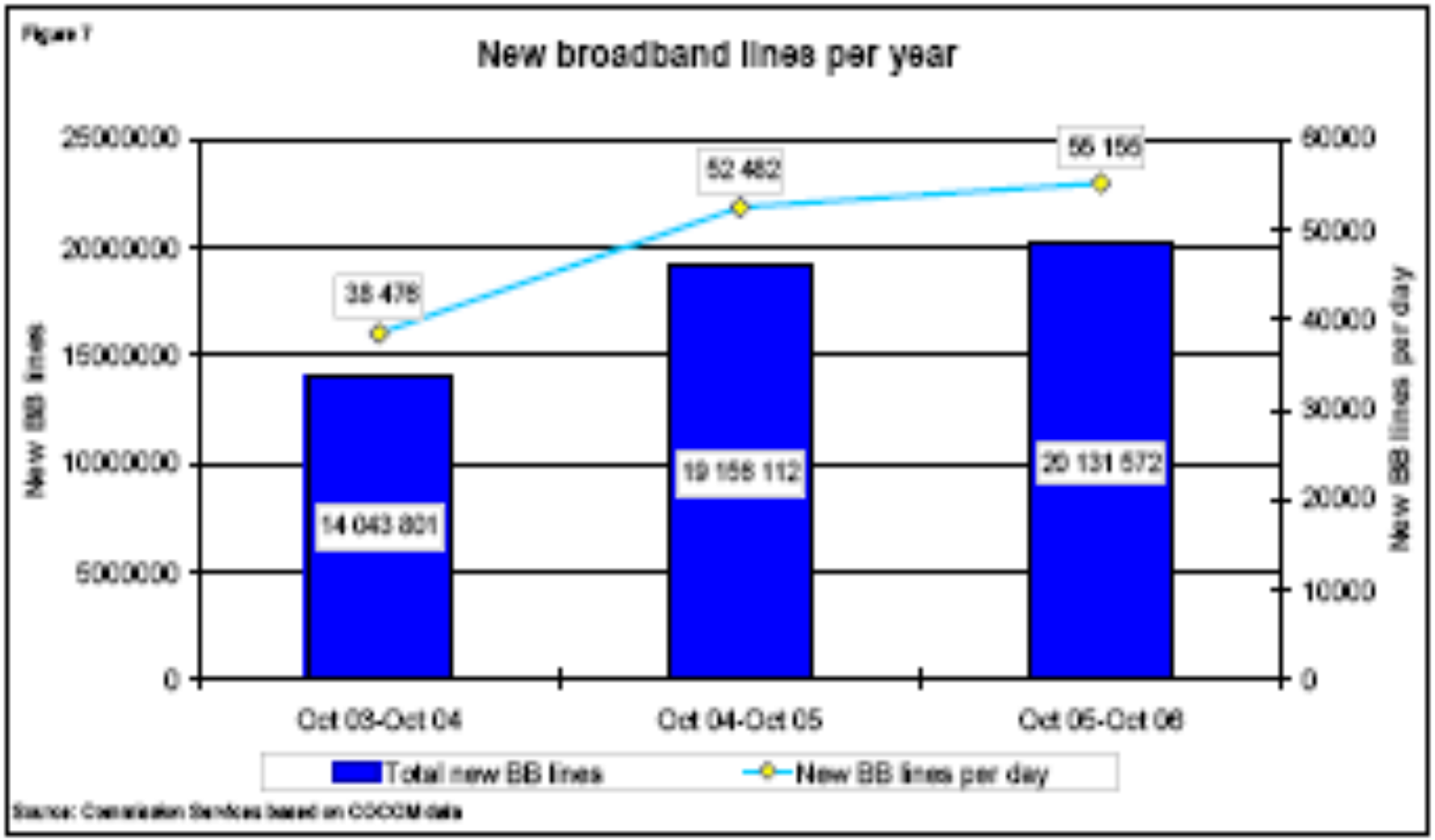
Source: Mourre (2007), using data from ECFIN-AMECO, US Bureau of Labour Statistics and Eurostat.

(http://ec.europa.eu/enterprise/enterprise_policy/competitiveness/doc/compet_report_2007/comprep_2007_sec_1444.pdf)

Table 4 Personal Digital Audio(MP3) Players					
Units Sold (000's)	2003	2004	2005	2006	2007[f]
France	250	1,550	4,860	6,125	6,300
Germany	870	3,160	8383	7,113	7,003
Italy	59	433	2,535	3,750	4,000
Spain	82	1,041	3,077	3,844	4,538
UK	288	1,750	7,372	10,530	11,553
Total Western Europe	**1,828**	**9,837**	**30,739**	**36,051**	**37,036**

Source: EITO 2007

Networks


New broadband lines per year
25000000
20000000
15000000
10000000
5000000
0
60000
50000
40000
30000
20000
10000
0
38 476
52 482
55 156
14 043 801
19 158 112
20 131 572
Oct 03-Oct 04
Oct 04-Oct 05
Oct 05-Oct 06
Total new BB lines
New BB lines per day