

Towards an EU Policy for the Future Internet

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Action at EU level?

- Can Europe afford not to participate in the making of its future?***
- Should the efforts in Europe be limited to R&D?***
- Is there a need for a common strategy and if yes which are its main elements?***

Seoul Declaration

OECD Ministerial Conference, June 2008

....the Internet Economy, ... will strengthen our capacity to improve the quality of life for all our citizens by:

- ❑ Providing **new opportunities** for employment, productivity, education, health and public services as well as addressing environmental and demographic concerns.
- ❑ Acting as a key driver for the creation of enterprises and communities and stimulating closer **global co-operation**.
- ❑ Enabling new forms of **civic engagement and participation** that promote diversity of opinions and enhance transparency, accountability, privacy and trust.
- ❑ Empowering **consumers and users** in online transactions and exchanges.
- ❑ Reinforcing a **culture of security** which applies to information systems and networks, and their users.
- ❑ Developing an increasingly important platform for **research**, international science co-operation, creativity and **innovation** in many different sectors.
- ❑ Creating opportunities for **new economic and social activities**, applications and services through ubiquitous and seamless access to communication and information networks.
- ❑ Promoting a **global information society** based on fast, secure and ubiquitous networks which connect billions of people, machines and object

The Bled Declaration

March 2008

- The European Internet R&D community committed to work together more closely in Future Internet Technologies**
- A Future Internet Assembly (FIA) was launched as a forum for discussion and debate**
- The FIA could potentially provide the foundations for strategic public private partnerships across member states in the area of Future Internet**
- The “Bled Declaration” was endorsed by 5 European Technology Platforms and over 70 research projects**
- It represents a milestone in better co-ordination of European and international efforts**

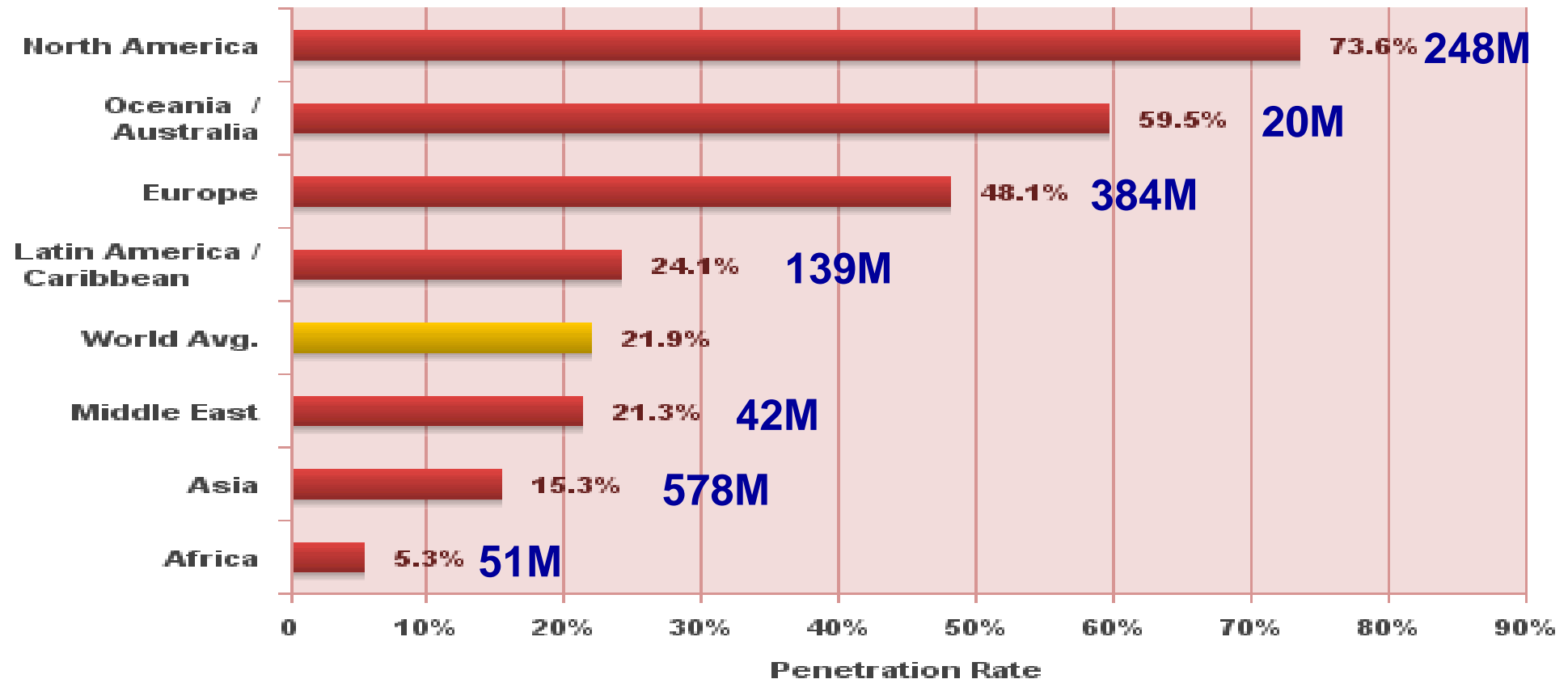
10 Years of ICT Industrial (r)evolution

COMPANY	MARKET CAPITALISATION	VALUE/ REVENUE
MICROSOFT	255 (Bn\$)	3,8
CHINA MOBILE	230	4
AT&T	200	2,2
IBM	170	2
GOOGLE	150	7
CISCO	149	3,2
VODAFONE	140	2,8
TELEFONICA	120	2,1
VERIZON	100	1,5
NOKIA	93	1,1
AMERICA MOVIL	90	3
DT	85	1
FT	80	1,67
NTT	71	0,7
DoCoMo	70	1,5
SAP	70	4
AMAZON	36	2
ERICSSON	34	1,5
EBAY	33	4
YAHOO	30	3,3
MOTOROLA	20	0,6
ALCATEL-LUCENT	15	0,6

- ❑ Actors vanished: SBC, Bell Atlantic, WorldCom, Digital Eqpt..
- ❑ Emergence of mobile actors;
- ❑ Emergence of strong Internet players, with high “confidence indexes”;
- ❑ Multiple convergence trends, Innovation acceleration; agile markets
- ❑ New breed of key players, inexistent 5 years ago: You Tube, Facebook, Orkut, Hulu, MySpace, 2nd Life, Flickr;
- ❑ Rise of social networks, still hard to value;
- ❑ Globalisation, Emerging industrial nations;

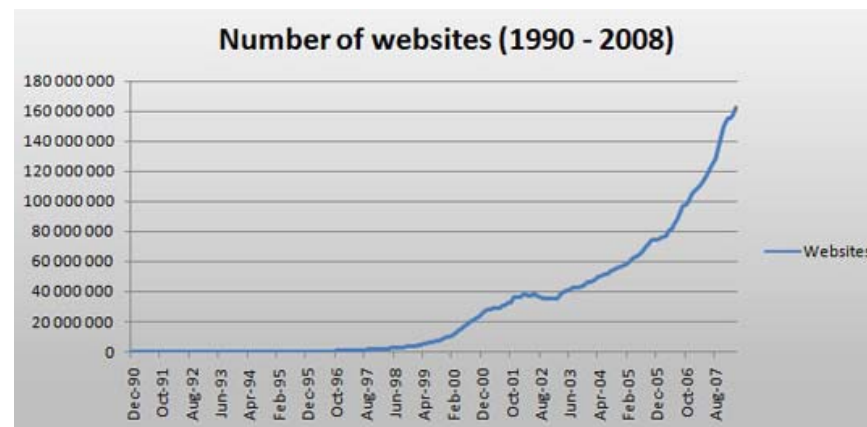
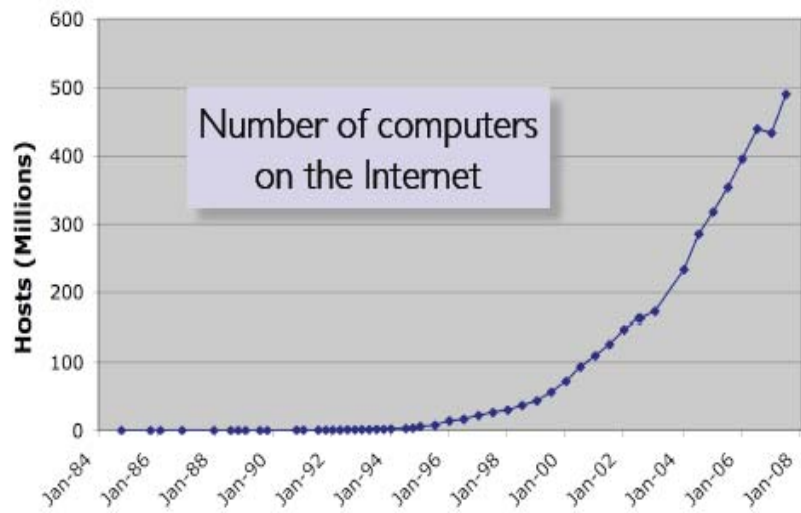
Internet Today – The actors are changing

World Internet Penetration Rates by Geographic Regions

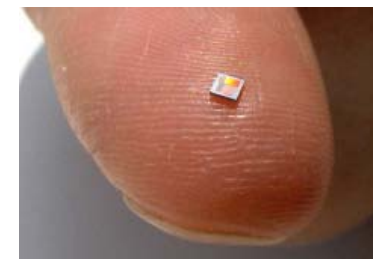


Source: Internet World Stats - www.internetworldstats.com/stats.htm
Penetration Rates are based on a world population of 6,676,120,288 for mid-year 2008 and 1,463,632,361 estimated Internet users.
Copyright © 2008, Miniwatts Marketing Group

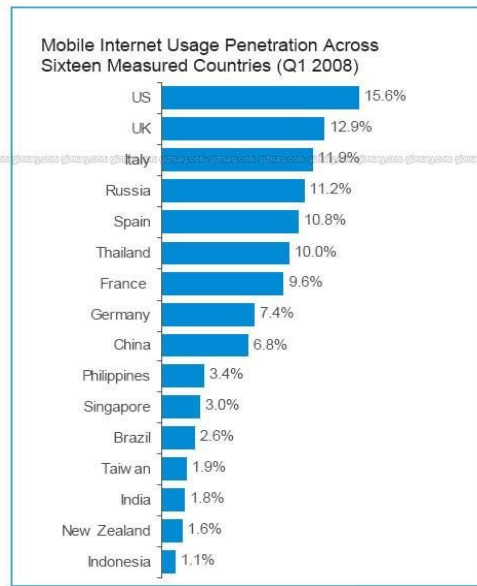
Internet is evolving beyond connecting hosts and web pages



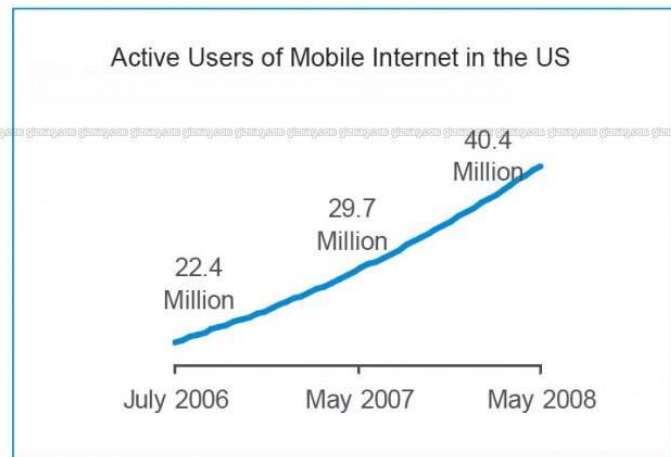
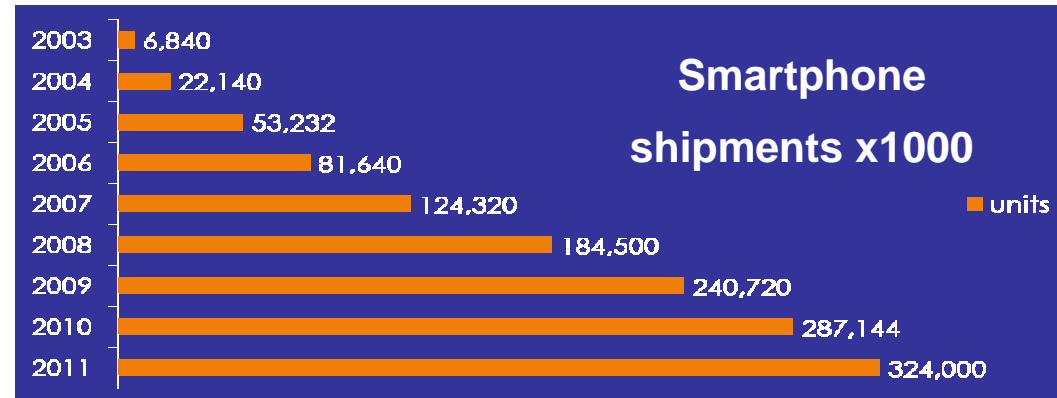
- ❑ Towards trillions of connected devices, M2M, Internet of objects
- ❑ Merging the physical and the virtual worlds;
- ❑ The network becomes a data base
- ❑ From information to knowledge, to reasoning and problem solving (Internet of services)
- ❑ Geo-location as embedded capability
- ❑ Multi service network, multi network services, cloud computing



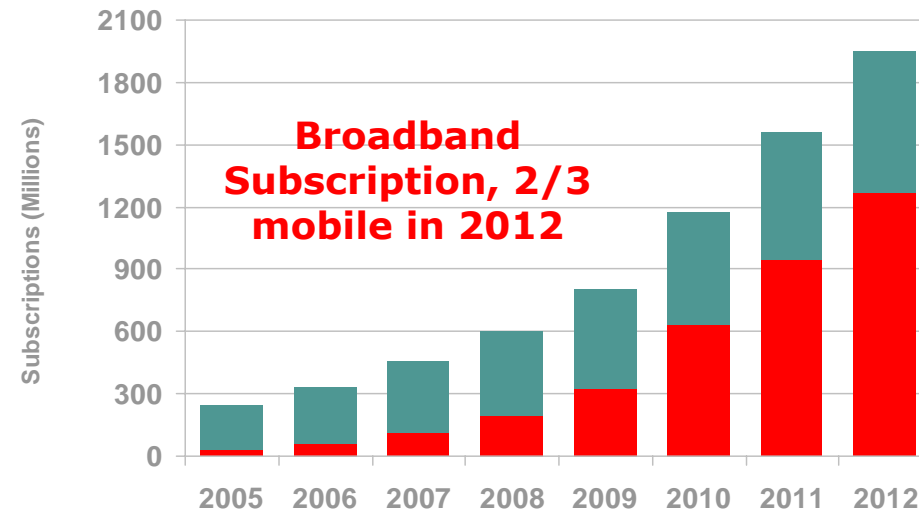
Internet is evolving towards a Mobile Internet



Source: Nielsen Mobile



Source: Nielsen Mobile



Mobile Internet use generated over \$5 billion in 2007, and accounted for \$1.7 billion in Q1 of this year, i.e 33% increase. 400 Millions Mobile Internet users expected in 2012

Evolution Factors

Usage Explosion

- ❑ **Social applications, user generated content;**
 - ❑ 600 Million users accessing SN sites last June, +25%/year
 - ❑ Facebook growth: 150%/year
- ❑ **Birth of 3D Internet**
 - ❑ Pioneered through online games, 100 M players on line;
 - ❑ Confluent of social/personalisation trends;
 - ❑ New business perspective
- ❑ **Machines and computers, M2M beyond RFID**
- ❑ **Social value applications**
 - ❑ Remote patient monitoring could cut overall health care expenditures by 25% (**E-Health**)
 - ❑ Telecommuting (**Tele-Working, Tele-Teaching**) could save \$ 3.9 billion a year in fuel (50 Mt CO2). Same for video conf vs business travel.

Information Explosion

- ❑ The digital universe in 2007 is estimated at **281 exabytes** (281 billion gigabytes). By 2011, the digital universe will be **10 times** the size it was in 2006.

- ❑ **Total IP traffic: from 4.5 Exabytes/mo in 2005 to 29 exabytes/mo in 2011**

Source: <http://www.emc.com> "An Updated Forecast of Worldwide Information Growth Through 2011, **March 2008**

The societal context is changing

- Ageing population;
- Climate change, environment;
- Energy scarcity, transport reappraisal;
- Raw material, water;
- Globalisation, emerging new world leaders;
- Demographic pressures, migrations;
- Security and privacy concerns;
- Regionalisation trend
 - Whilst 75% of Internet traffic crossed US borders a couple of years ago, this has now fallen to 25%)

Questions for Debate

- A FI policy with which objectives?**
 - Coping with the future? Which initiatives?
 - A new chance for the EU Internet industry? Competitiveness? Growth?
 - Application responses to societal challenges?
 - Independence and new governance?
- In which time horizon ?**
 - Clean slate versus evolutionary approaches?
- How best to orchestrate a EU joint approach (R&D and beyond)?**
 - Which focus for the work? Network perspective or wider perspective?
- Which elements to consider beyond R&D?**
 - Which International co-operation strategy?
 - Is there a need for a new approach to standardisation? IPR – interoperability?
- How can we bring in the user's voice (open innovation)?**
 - How to best strengthen the trust and confidence (security and privacy)
- Which role for the EU Internet industry (HW,SW, Services) ?**
 - How to leverage our strongholds and create dynamic Internet markets?
 - How to ensure that innovative spin off start ups grow and stay in Europe?
 - How to optimise industry/academic partnerships?
 - How to create the conditions for an agile Internet economy?