Committed to Connecting the World

International Telecommunication Union

Regional Preparatory Meeting for the ITU World Telecommunication Development Conference 2010 (WTDC-10)

Information Society Statistical Profiles 2009

Europe

Andorra
1-3 December, 2009

Agenda

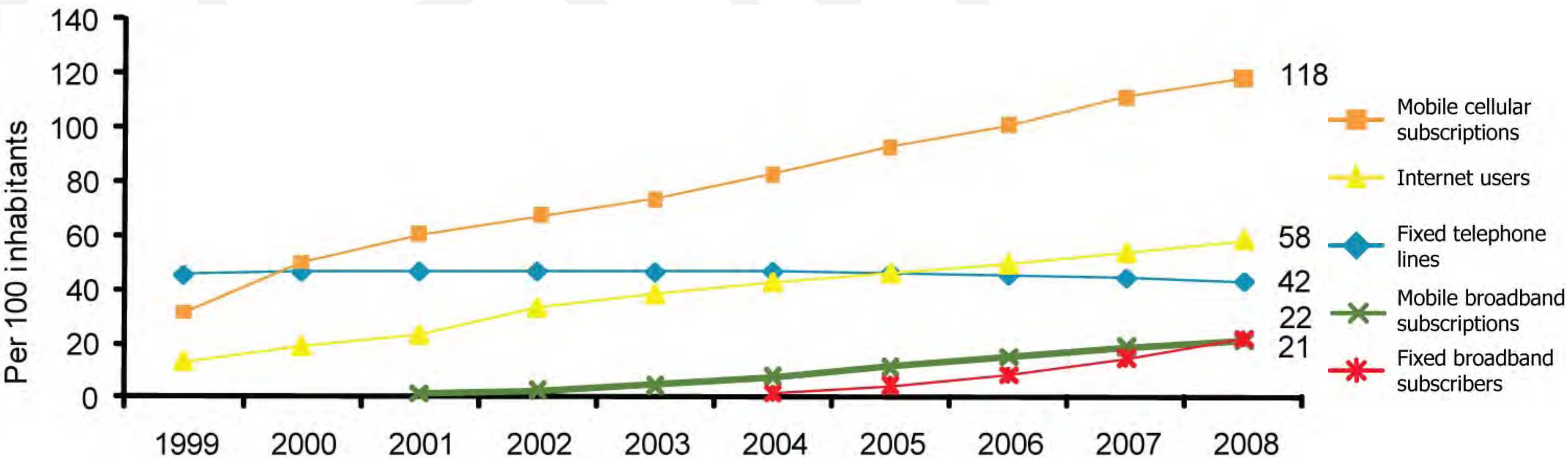
- Recent ICT Trends
- Telecommunication and media sector convergence: hype or reality?
- Benchmarking the Information Society

Agenda

- Recent ICT Trends

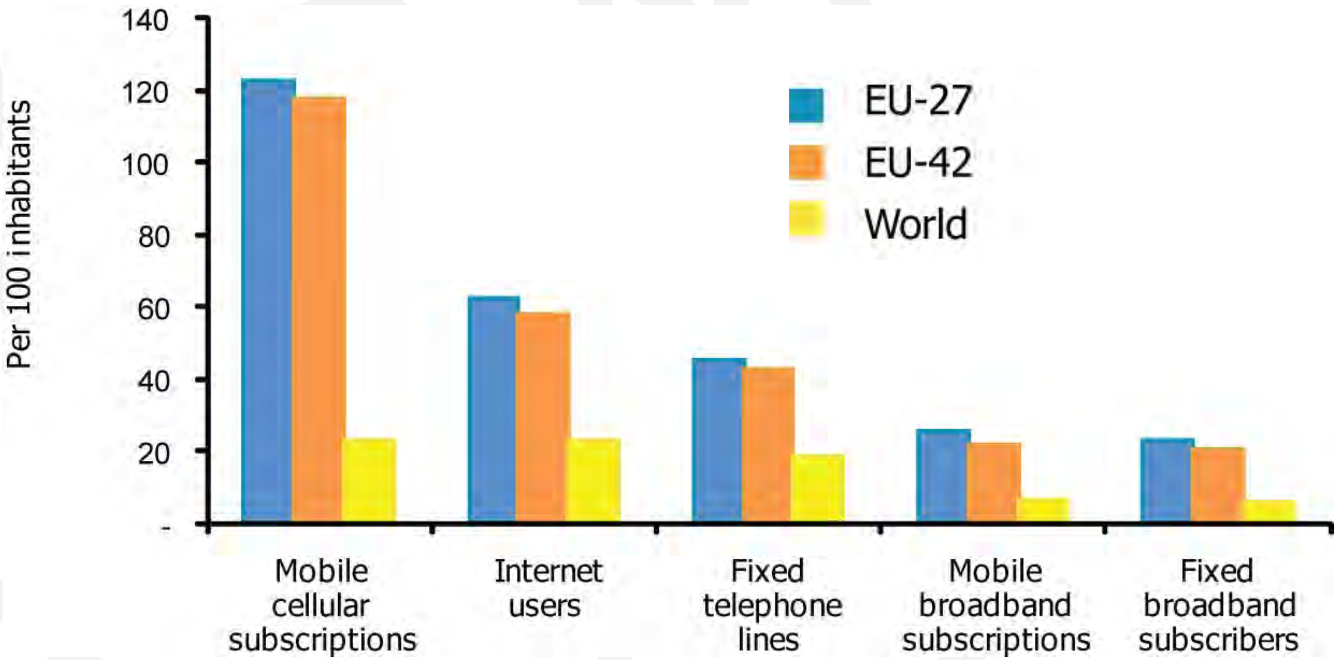
  - Overview
  - Fixed and mobile telephony
  - Internet and broadband

Strong 10-year growth in ICT services and high penetration levels in Europe-42



Source: ITU.

Europe's ICT penetration rates consistently higher than world average (2008)



Source: ITU.

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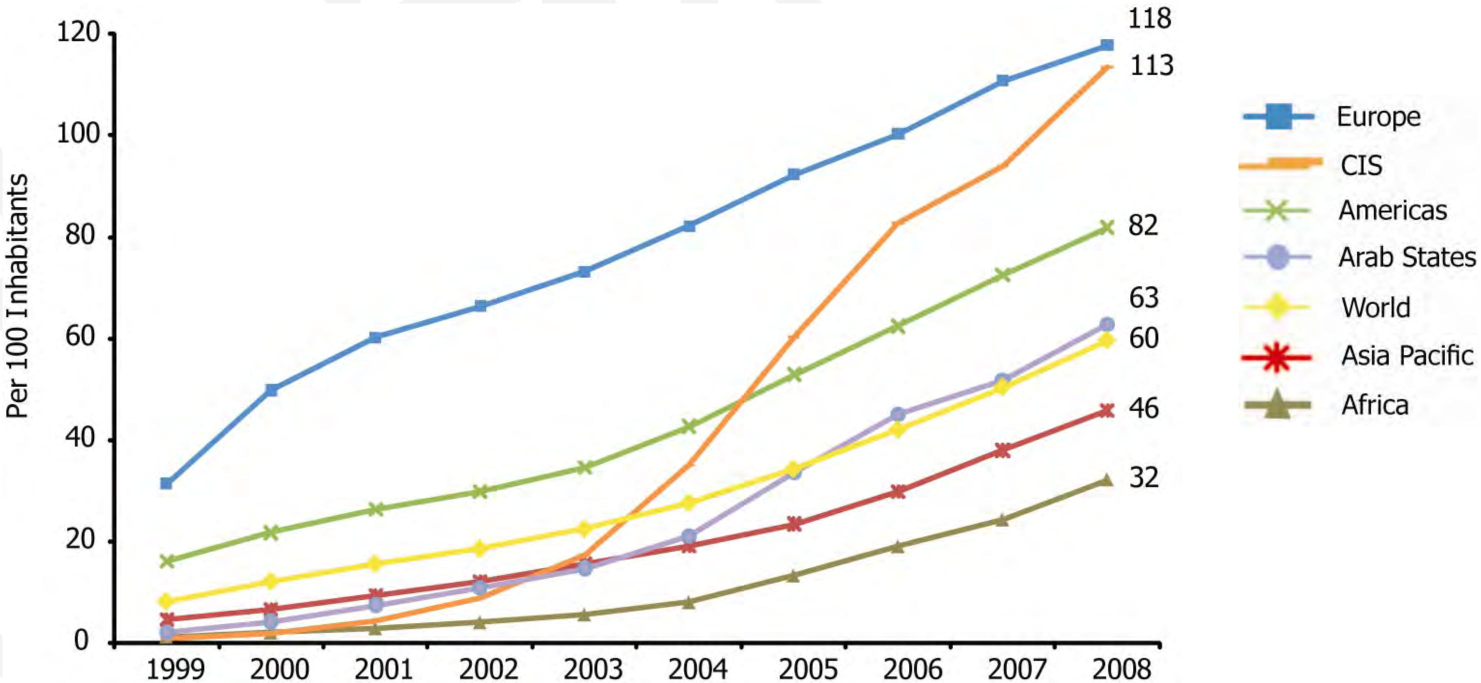
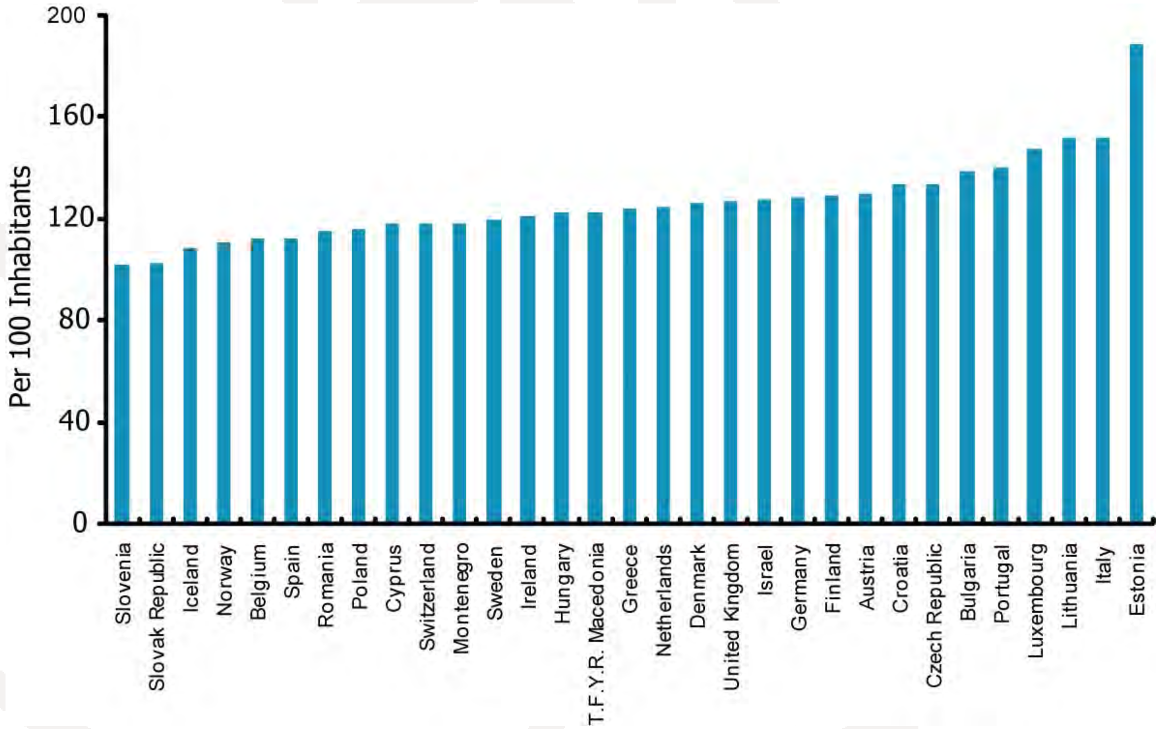
Europe leads in mobile penetration



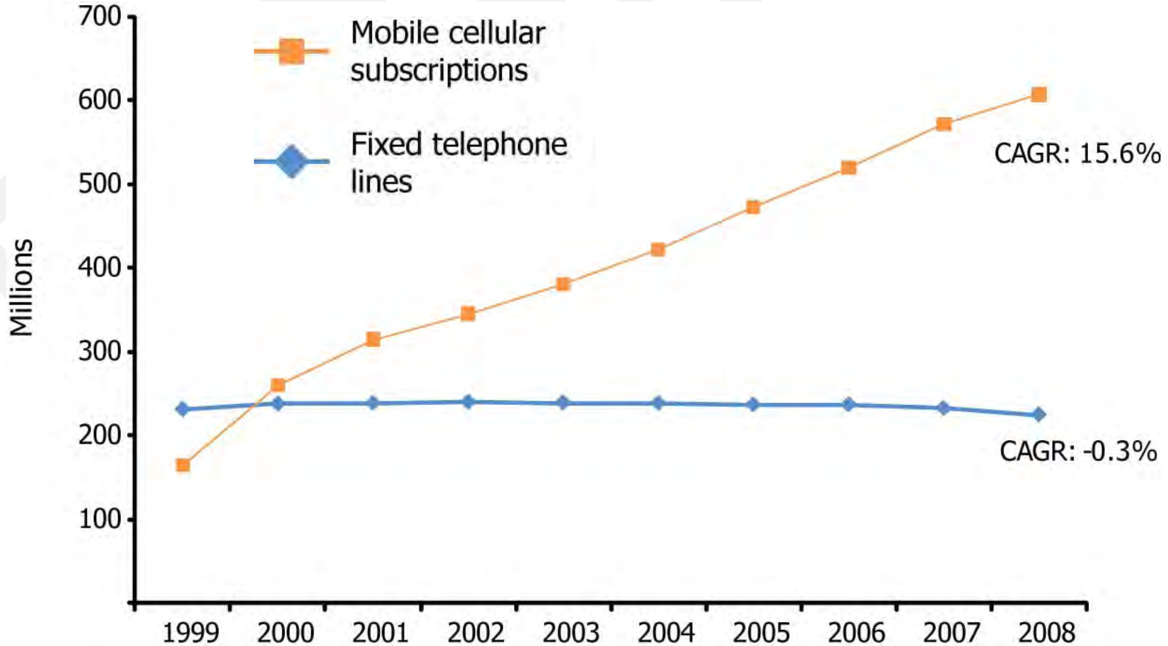
Source: ITU.

European countries with mobile cellular penetration above 100 per cent, 2008



Source: ITU.

Mobile cellular subscriptions and fixed telephone lines in E-42, 1999-2008



Source: ITU.
Note: CAGR = Compound Annual Growth rate.

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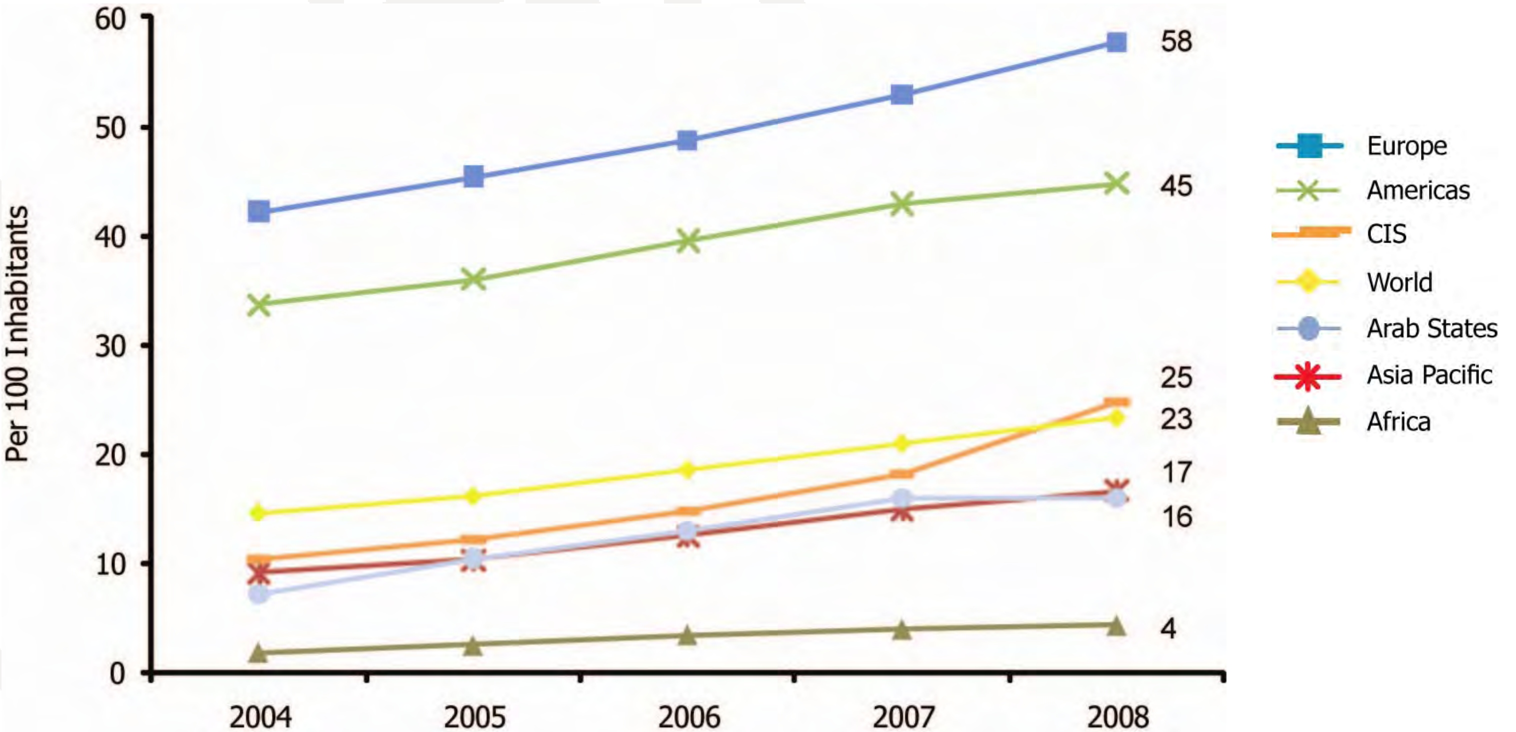
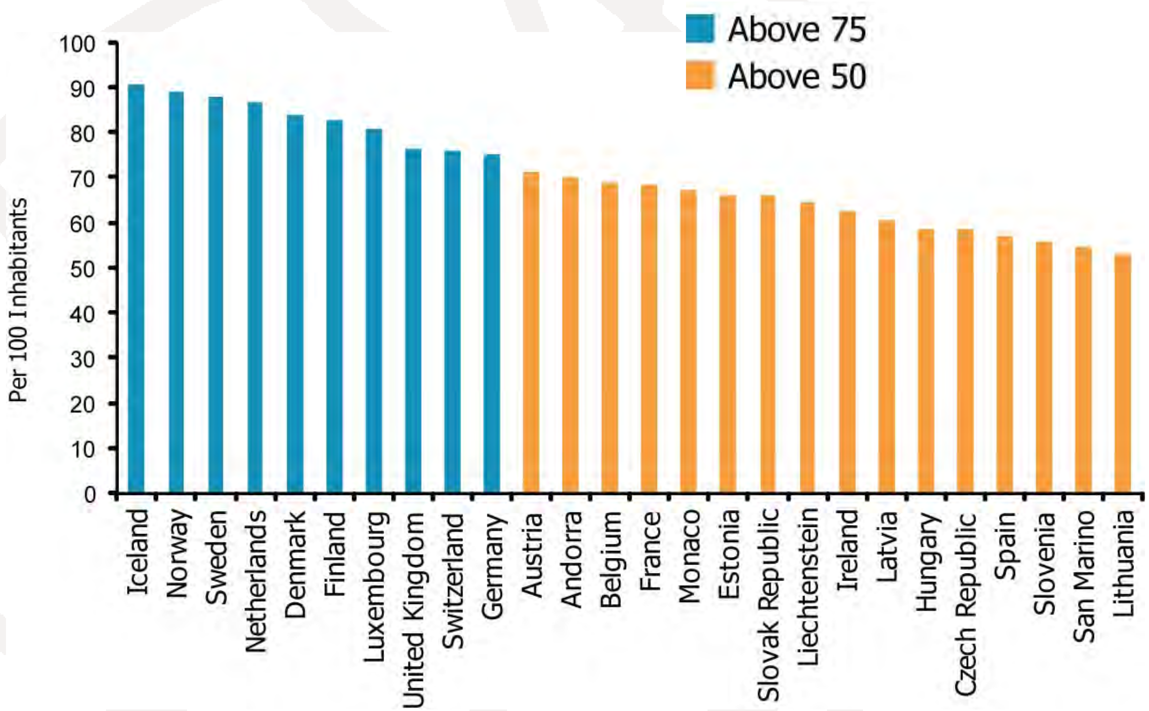
Internet users by region, 2004-2008



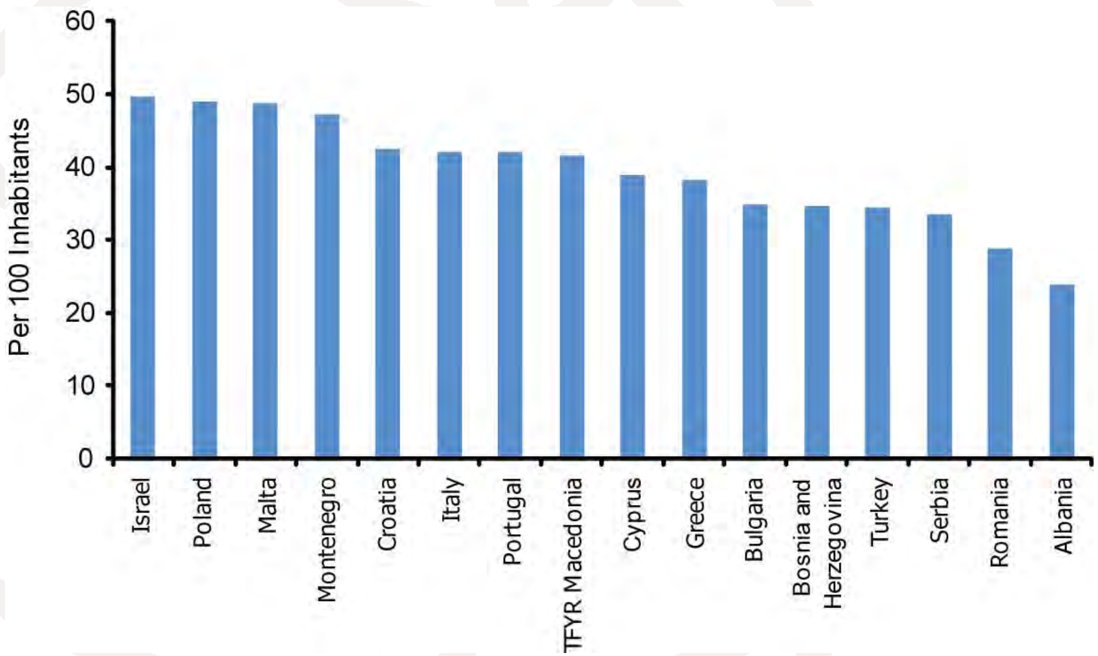
Source: ITU.

European countries with Internet user penetration above 50%, 2008



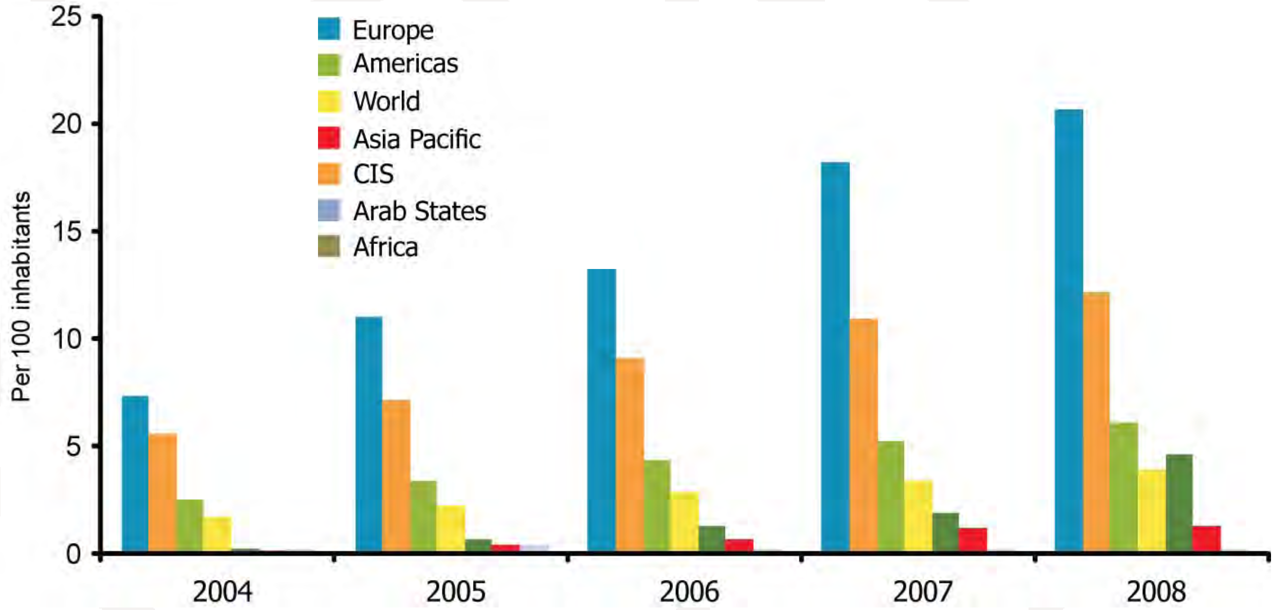
Source: ITU.

…and Internet user penetration below 50% (2008)



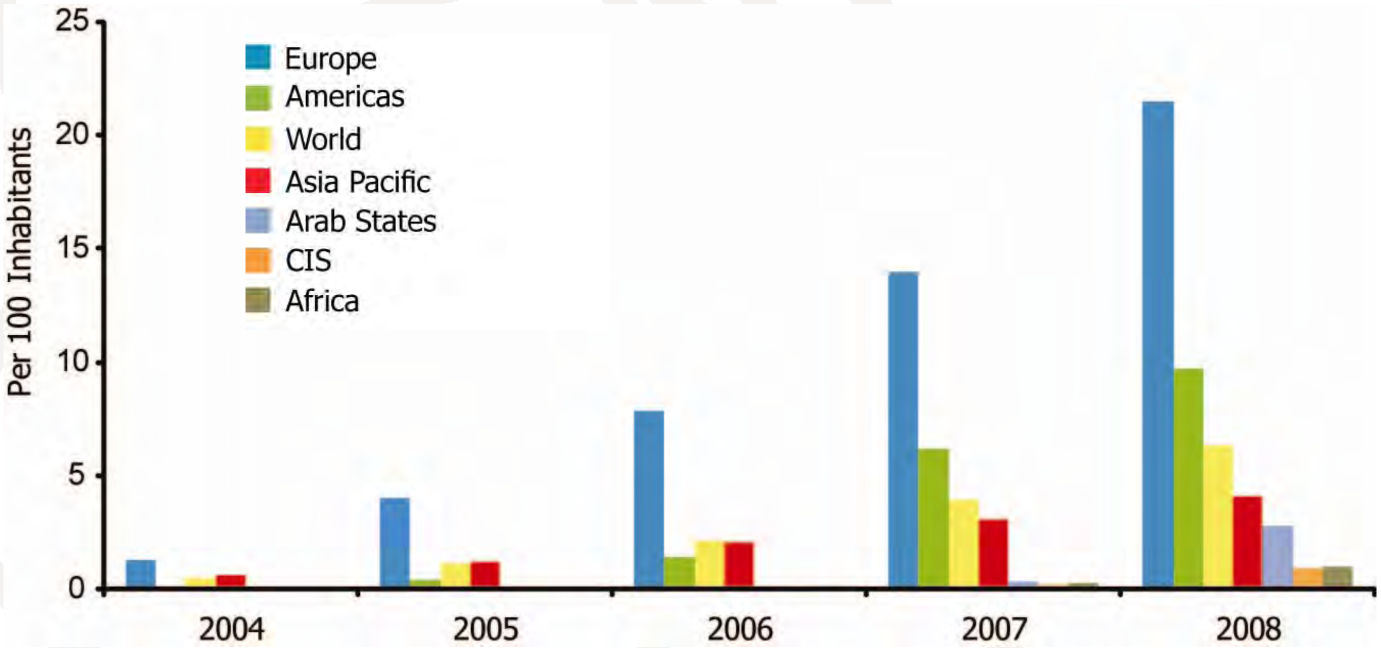
Source: ITU.

Fixed broadband penetration by region, 2004-2008



Source: ITU.

Mobile broadband penetration by region, 2004-2008



Source: ITU.

A set of policy choices and regulatory initiatives to stimulate broadband growth

- Harmonized pan-European approach: pan-European i2010 initiative played an important role in enhancing digital inclusion and enabling broadband diffusion
- National strategies: examples include "Digital Britain" strategy in UK, "Avanza Plan" in Spain, "National Broadband Strategy" in Germany.
- Regulatory intervention: timely and efficient enactment of key levers such as local loop unbundling, price controls, and the licensing of Internet Service Providers

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- Telecommunication and media sector convergence: hype or reality?

  - Overview
  - Supply Drivers
  - Demand Drivers
  - Role of Policy Makers and Regulators

Dynamics of the European telecommunication market have changed

- Key characteristics of the telecommunication industry
  - Stagnating revenues and profitability for operators
  - Introduction of bundled service packages
  - Increased competition from non-telecommunication players
- Key characteristics of the media industry:
  - Strong financial position
  - Exploring new markets
  - Digital switchover opportunity

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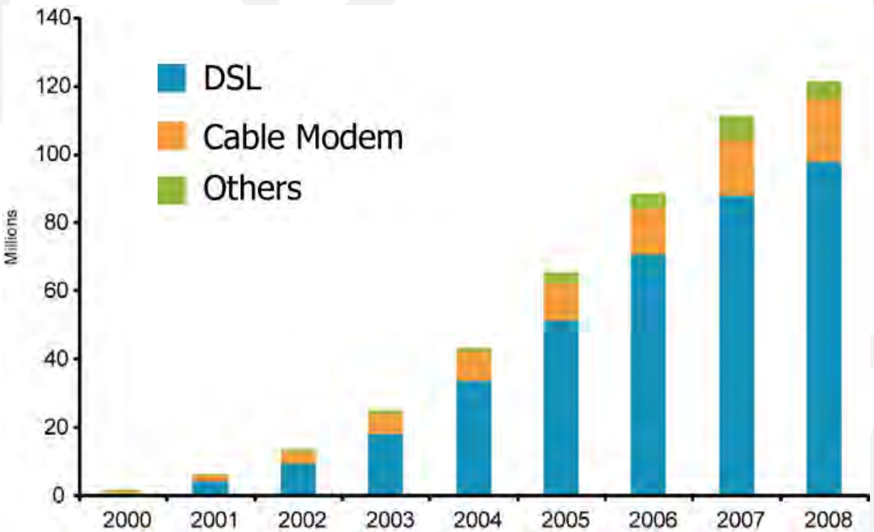
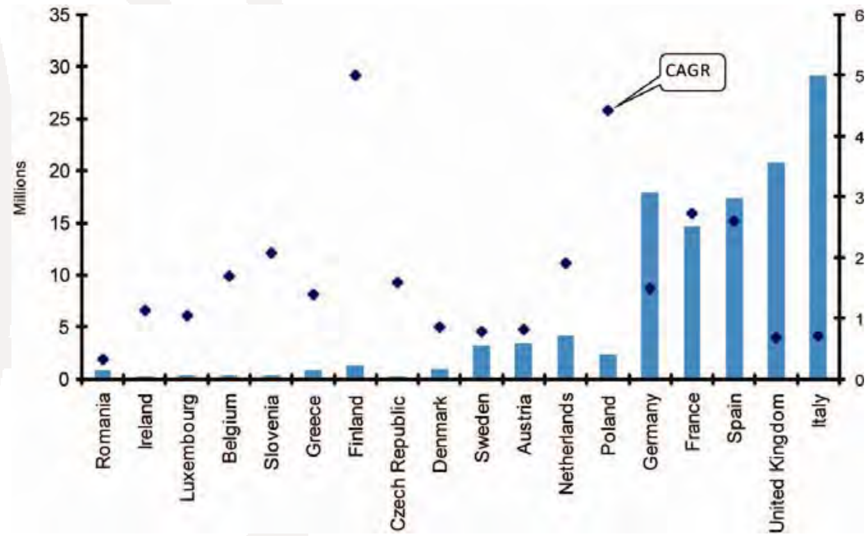
Fixed and mobile broadband growth: strong supply drivers in the telecommunication sector

Fixed broadband subscribers by technology in E-42, 2000-2008



Source: ITU.

Mobile broadband subscriptions (2008) and CAGR (2004-2008), selected European countries

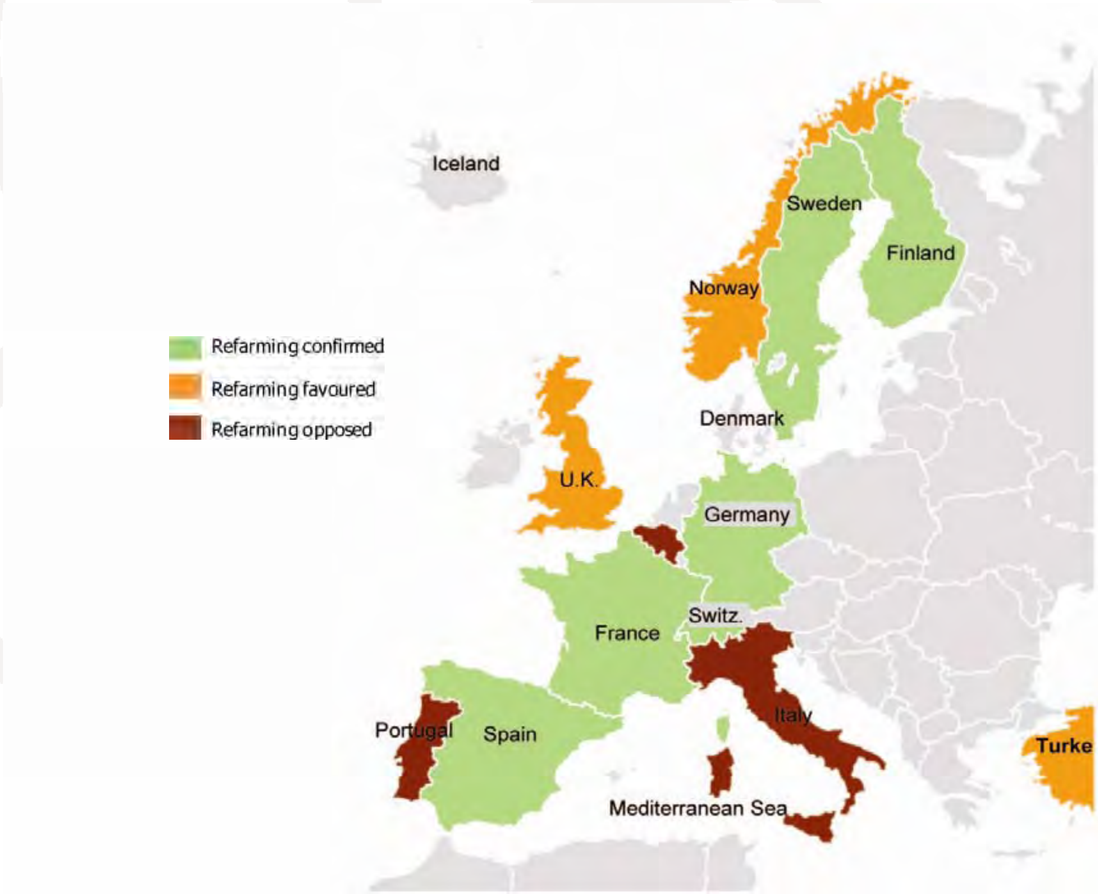


Source: ITU.

Key role of public support in developing broadband networks

- Recent trends by governments and private entities to form Public Private Partnerships, aiming to deploy fiber access networks:
  - Stokab in Sweden: created based on the initiative of Stockholm's municipality, with the intent of deploying fiber access networks and offering wholesale dark fiber services
  - National Broadband Strategy in Germany: aims to provide broadband connections of at least 50 Mbps to 75 per cent of German households by 2014
  - FTTH Project in Greece: MoC announced an ambitious public-private-partnership project to connect 2 million households to fiber access by 2017

Status of spectrum refarming –use of the "Digital Dividend" in EU-27, 2009



Source: EETT.

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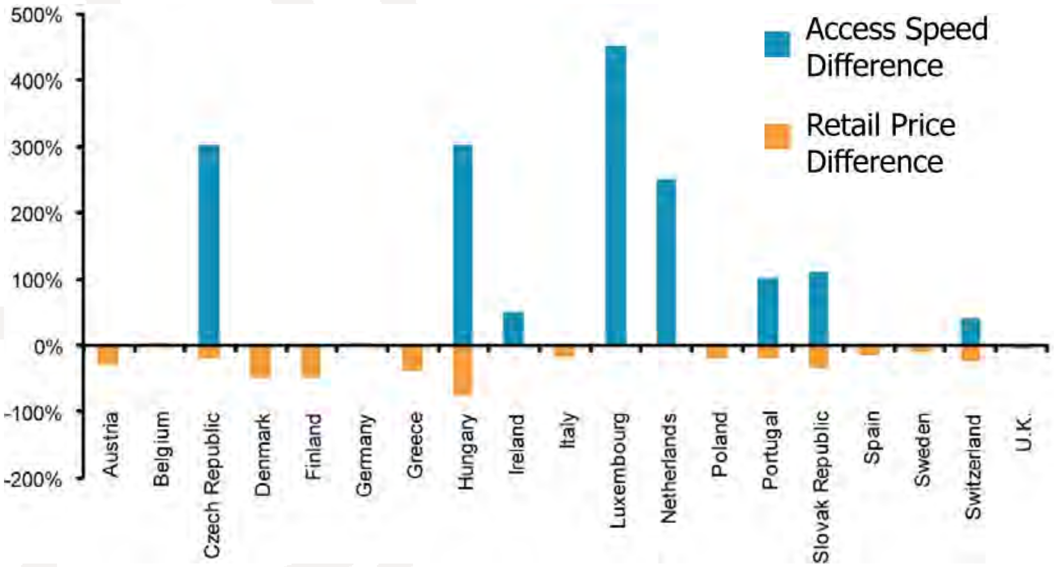
Demand is stimulated by decrease in retail prices

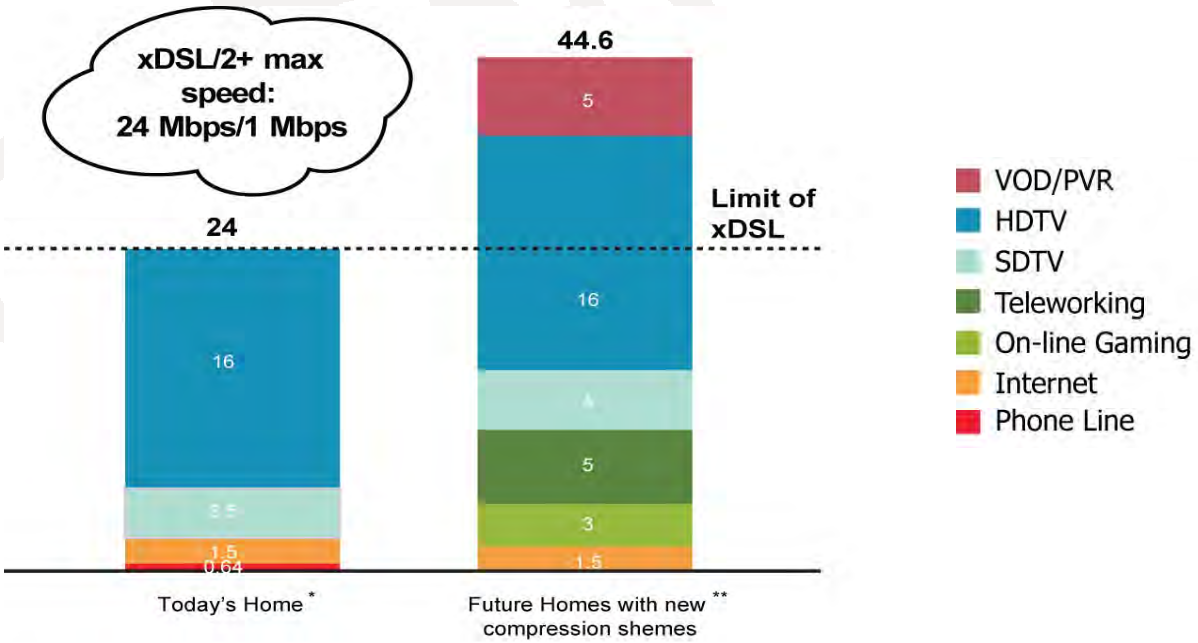
- Retail prices for fixed and mobile have decreased over the period 2006-2008
- For broadband services, prices have decreased and/or speeds have increased (at no additional cost)

Incumbent broadband price and speed changes, selected European countries, September 2006- September 2008



Source: OECD 2009.

Household demand for bandwidth (Mbps) in Europe, 2008



Note: *Today's home refers to 2008 and includes one phone, Internet, one Standard Definition TV (SDTV) and one High Definition TV (HDTV) service. **Future home refers to 2012 and includes two phones, Internet, two SDTVs, two HDTVs and additional applications.

Source: Corning Cable Systems 2006.

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Telecommunication and media convergence: key considerations for policy makers and regulators

- Review of economic and social objectives, taking into consideration key guidelines issued by EC/OECD
- Creation of a converged telecommunication/media regulator?
- Review regulatory rules in view of key levers such as spectrum allocation, content protection and market dominance

Is there a need for a converged telecommunication and media regulator?

- Key advantages:
  - One-stop-shop for resolving regulatory issues
  - Operational efficiencies, e.g. more resources available
  - Less overlap and turf battles between government agencies
  - Operators find it easier to comply with only one regulatory authority
  - Better overview and understanding of the marketplace

- Key disadvantages:
  - Disparity in the approach of regulating telecommunication and media sectors
  - Difficulties in defining single markets and applying remedies
  - Implications for defining board size (governance), as well as authorization and decision making rights (management)
  - Considerable time and effort required in merging two entities

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Benchmarking the information society

- ICT Development Index

- ICT Price Basket

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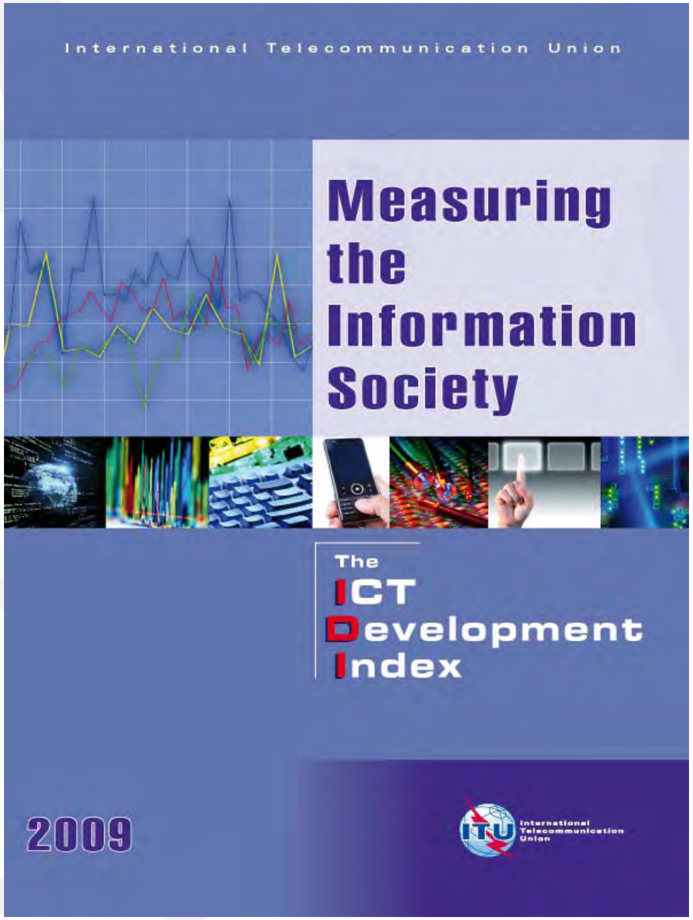


ICT Development Index (IDI)

- Track ICT progress *over time*
- Address all countries – *global* index
- Measure *digital divide*
- Capture ICT *development potential*
- 11 indicators
- Two years: 2002 and 2007

Update of IDI (2008 data) will be available in early 2010

IDI – Weighting of indicators

ICT access	Ref. Value	(%)
1. Fixed telephone lines per 100 inhabitants	60	20
2. Mobile cellular telephone subscriptions per 100 inhabitants	150	20
3. International Internet bandwidth (bit/s) per Internet user	100'000*	20
4. Proportion of households with a computer	100	20
5. Proportion of households with Internet access at home	100	20

40

ICT use	Ref. Value	(%)
6. Internet users per 100 inhabitants	100	33
7. Fixed broadband Internet subscribers per 100 inhabitants	60	33
8. Mobile broadband subscribers per 100 inhabitants	100	33

40

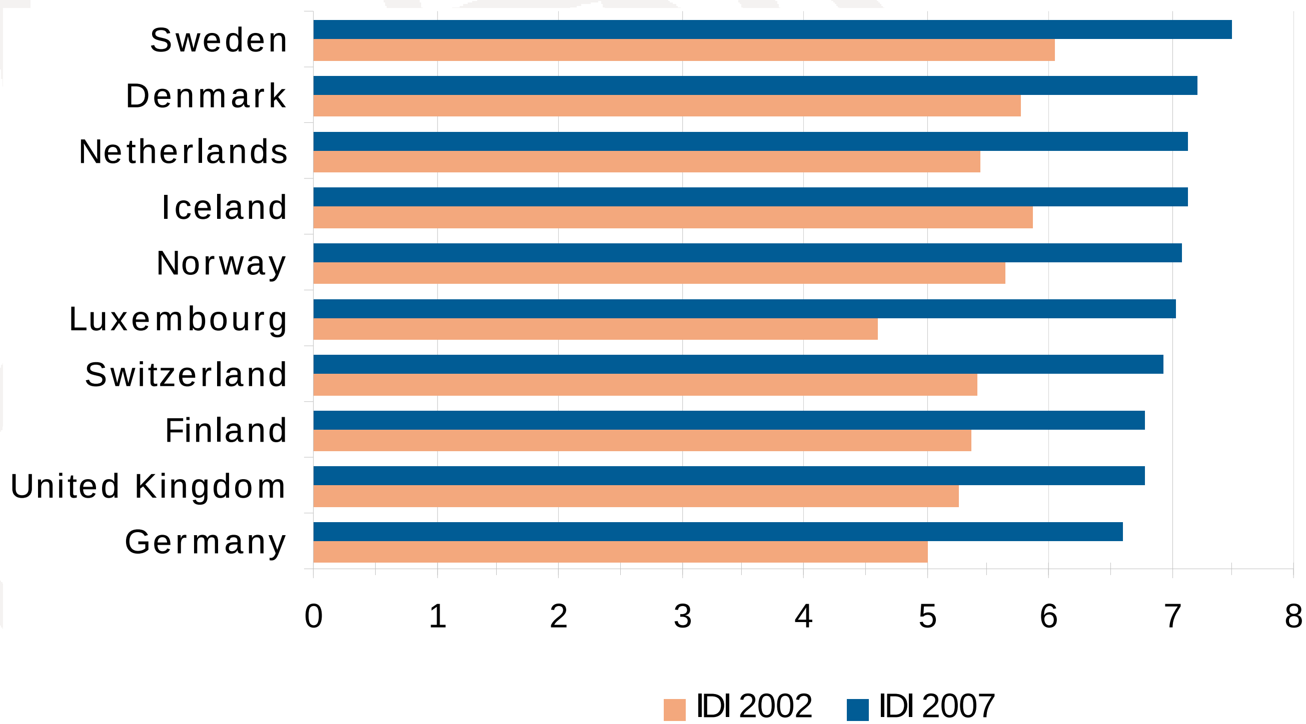
ICT skills	Ref. Value	(%)
9. Adult literacy rate	100	33
10. Secondary gross enrolment ratio	100	33
11. Tertiary gross enrolment ratio	100	33

20

ICT Development Index

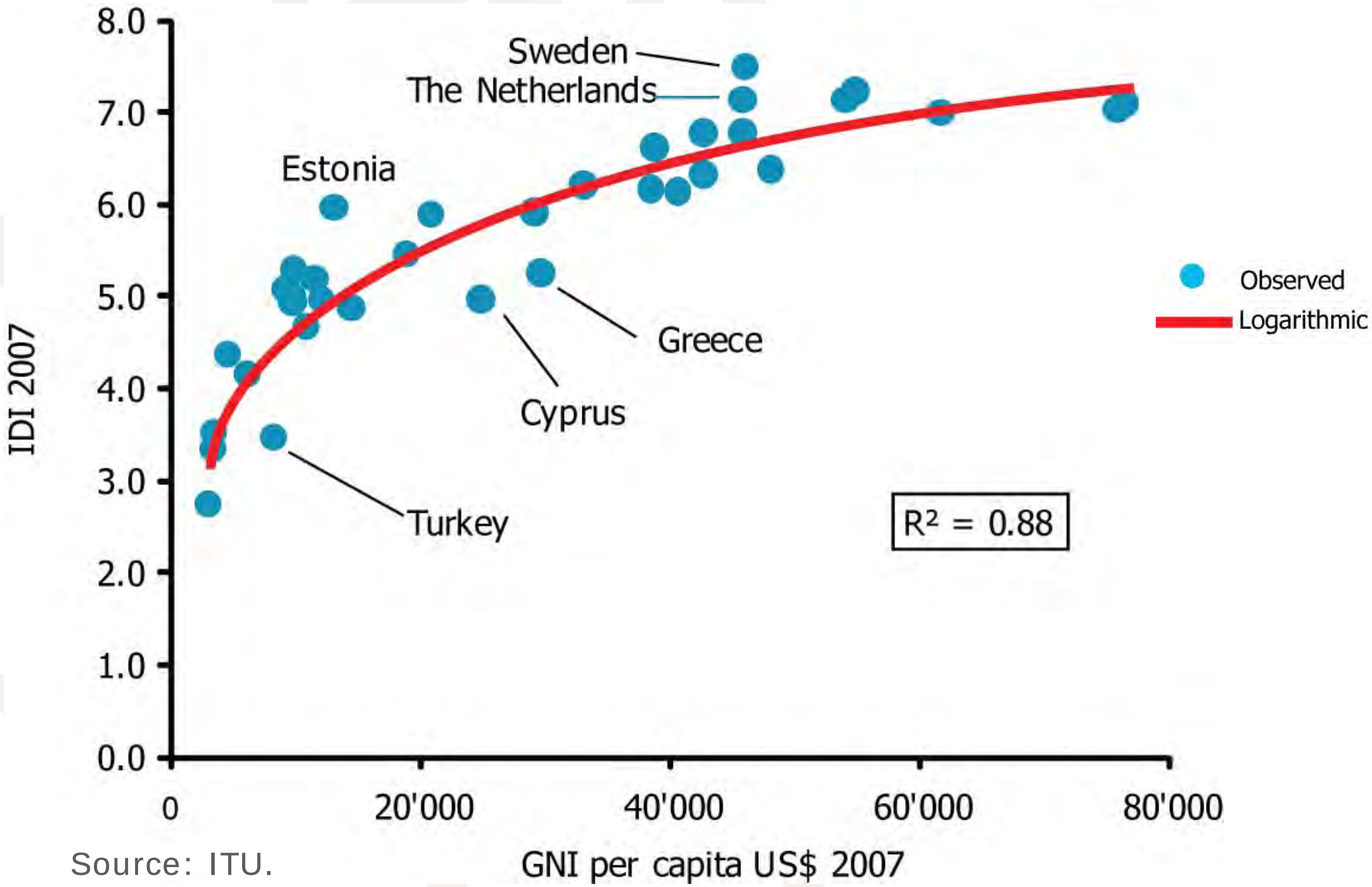
Source: ITU.

Regional IDI results for Europe: top 10



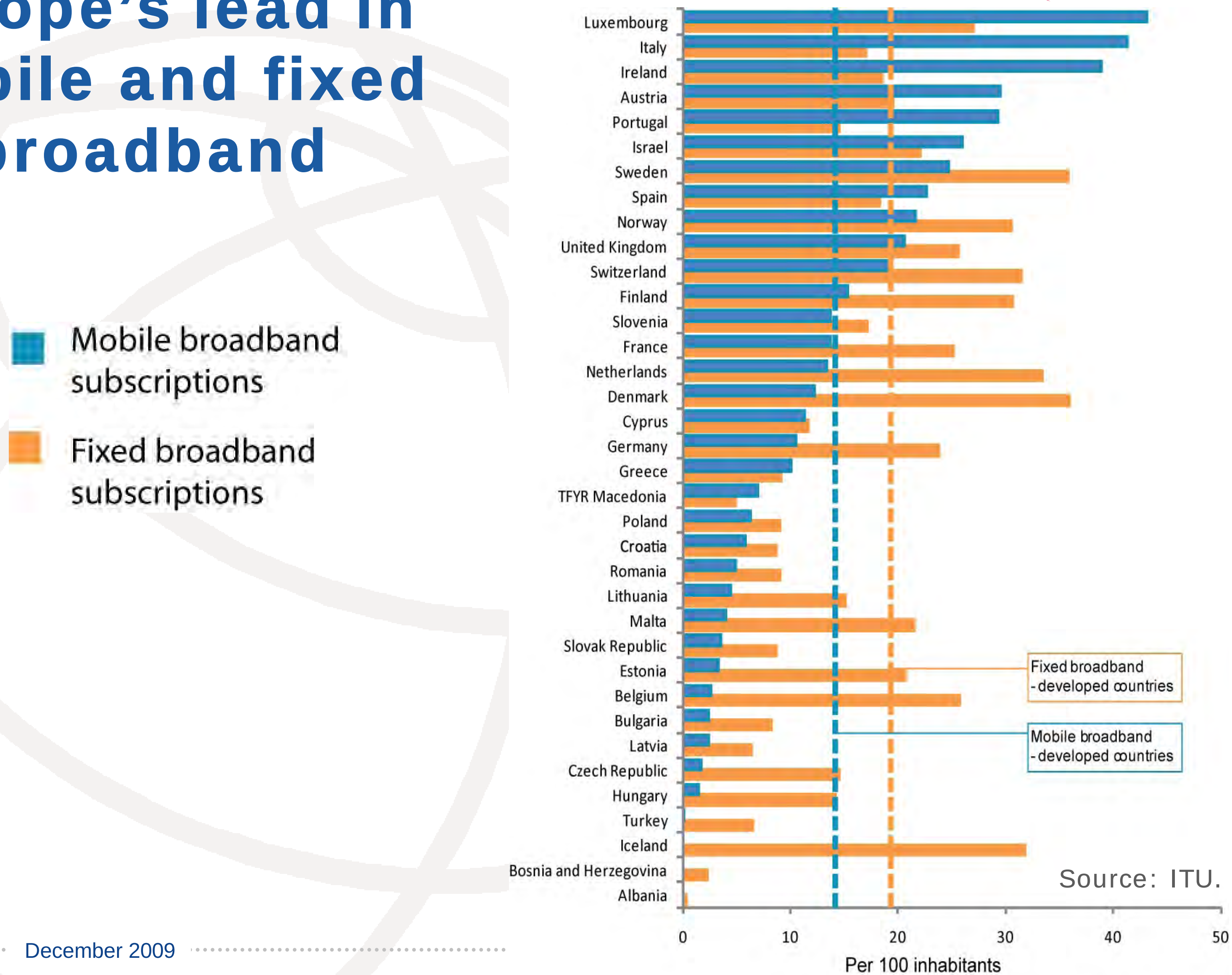
Source: ITU.

Correlation of ICT levels and income levels



Source: ITU.

Europe's lead in mobile and fixed broadband



Source: ITU.

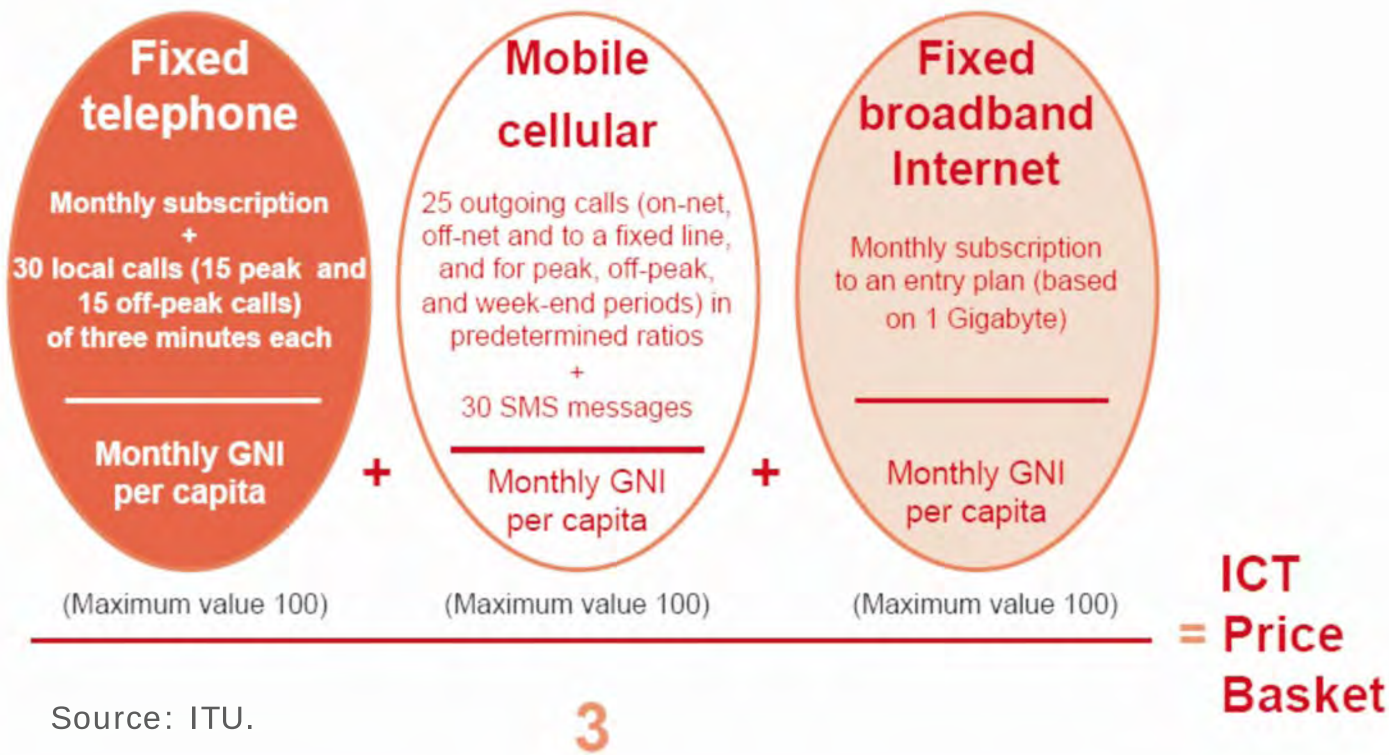
The ICT Price Basket 2008

How much do ICT services cost?

- Fixed telephone
- Mobile cellular
- Fixed broadband Internet
- US$, PPP$, % of monthly GNI per capita

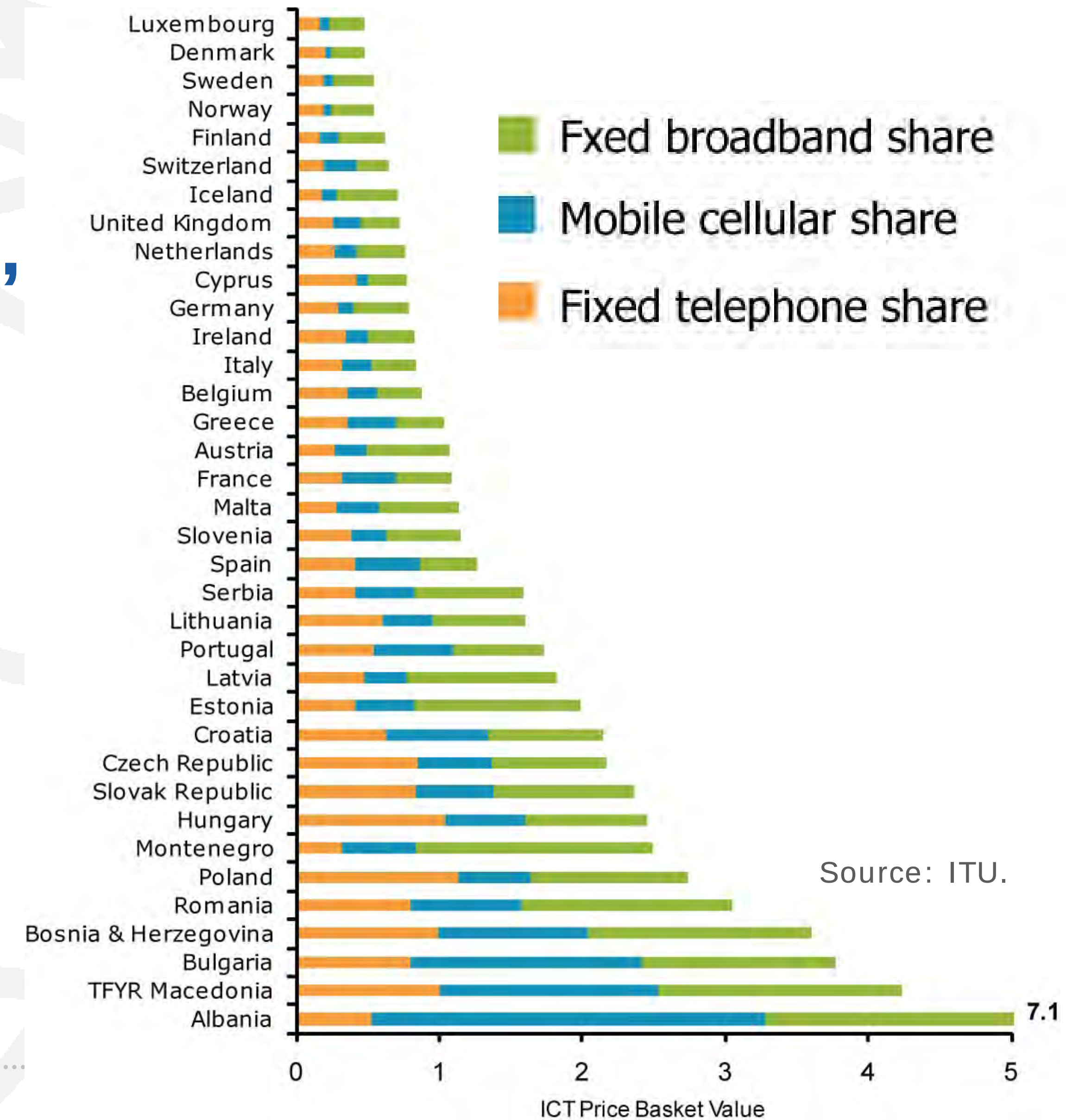
Updated ICT Price Basket (2009) available in early 2010

ICT Price Basket methodology



Source: ITU.

Regional ICT Price Basket by country, Europe, 2008



Source: ITU.

Conclusions (I)

- Europe has been undoubtedly the leader in ICT services uptake
- Key success factors include timely adoption of a harmonized legal and regulatory framework, as well as common technological platforms
- In parallel, EU countries have already initiated the process of migrating to digital broadcasting, bringing the telecommunication and media sectors closer
- On the way forward, key regulatory challenges are centered around:
  - ensuring high digital inclusion (“broadband for all”)
  - facilitating migration to the next-generation telecommunication and media converged environment

Conclusions (II)

- Recommendations to face the challenges:
  - Enable high-speed network deployment to ensure nationwide coverage through different platforms
  - Fine tune public support in broadband network development
  - Stimulate demand for new and advanced ICT services; enhance digital inclusion and digital literacy among citizens
  - Decide on optimal use of the digital dividend by adopting a harmonized, pan-European approach
  - Assess converged regulatory environment; decide on the necessity to have a converged regulatory authority and review applied levers

For further information

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