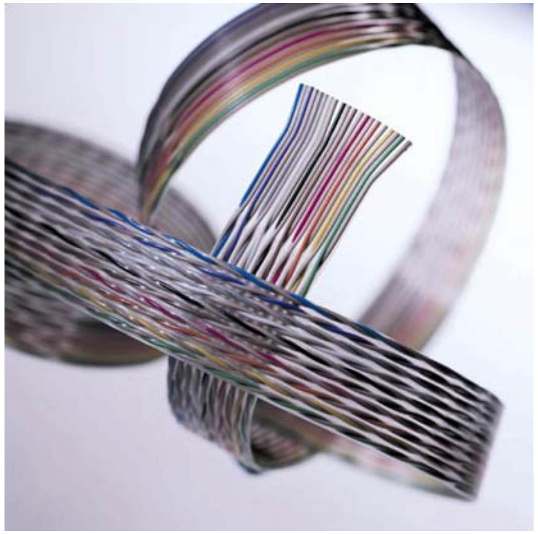
e-business w@tch

The European e-Business Market Watch



ICT and e-business key issues in the Telecommunications Industry

Interim Report 2006

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An initiative of the

European Commission

Telecommunications Industry

Sector definition

- **Telecommunications in NACE 1.1 (64.2):** Part of "post and telecommunications", reflecting heritage as state monopolies
- **Telcommunications in new NACE 2.0 with own division (61):** ***"…****activities of providing telecommunications and related service activities, that is transmitting voice, data, text, sound and video*"
  -> Report follows this broader approach.

Characteristics of the telco sector

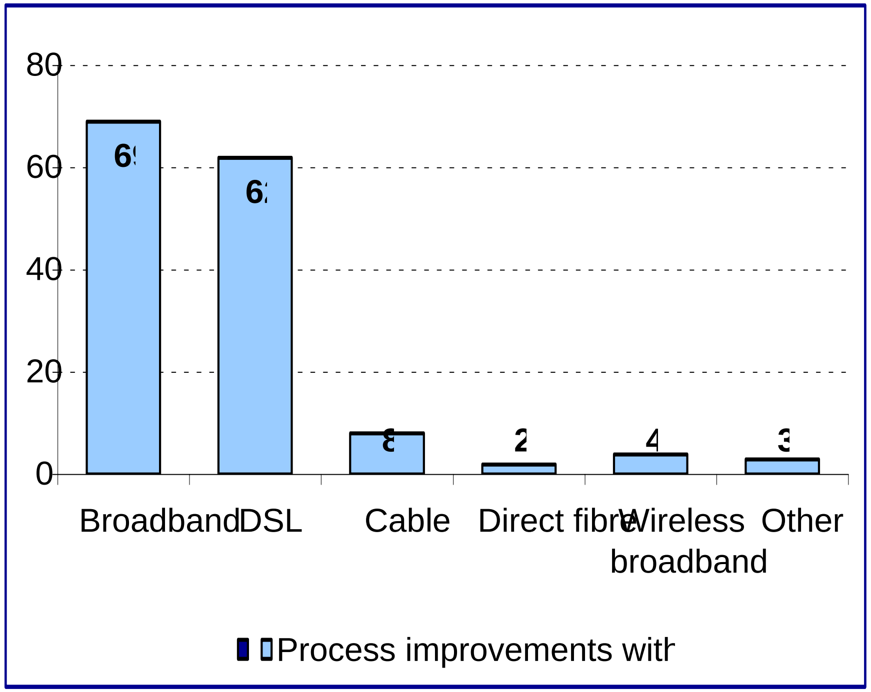
- **Heterogeneous landscape:**
  - Business focus: Network operators (incumbents and alternative operators) and resellers
  - By network operated: Telephony, Internet, Mobile, TV cable
  - Country differences due to different history and regulation
- **Links to other sectors:** network infrastructure and device manufacturing, IT services, content industry.

Sector trends and key issues analysed

- Telco companies face increased competition and cost pressure
  - **Drivers** include market **liberalisation**, increased relevance **convergence-**driving technologies, **saturation** in traditional telco segments
  - **Implications** for telco companies include:
    - **Development of new markets**: broadband, VoIP, IPTV,
    - **Support of customer relationships**
    - **Streamlining business processes**
- e-Business trends analysed reflect sector trends
  - **Telcos as suppliers of ICT:**
    - (1) New broadband access technologies,
    - (2) VoIP
    - (3) Convergence in the telecommunications industry
  - **Telcos as ICT users:**
    - (4) ICT to support marketing, sales and customer care

New broadband access technolgies

Broadband penetration (all 10 sectors, EU-10)

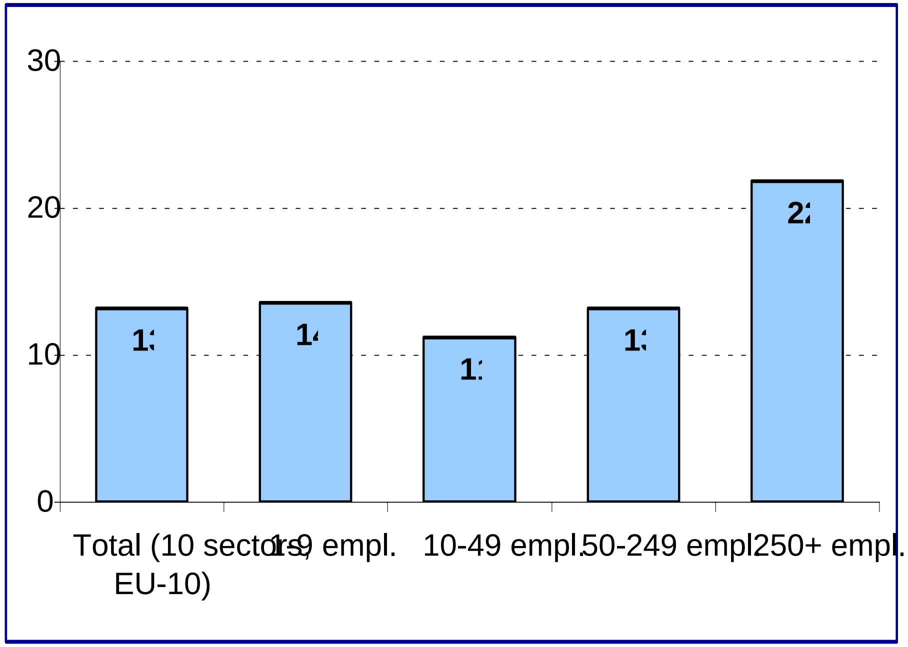


Source: *e-Business W@tch* 2006, (preliminary) results in „..% of enterprises“.

- Increased broadband penetration: “success story of DSL”
- Gap between urban and rural areas: roll-out of fixed access technologies less economic
- Question in focus: What is the role of fixed wireless broad-band technologies to fill the broadband gap?
- Case studies on rollout of WiMAX and Flash-OFDM networks in Eastern Europe
- Marketing of broadband services turned out as main challenge (WiMAX)

Voice over IP (VoIP)

Use of VoIP (10 sectors, EU-10)



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Impacts of VoIP

- Success story of Skype in the consumer market has driven the popularity of VoIP services, but…
- VoIP goes beyond the Skype model: pre-selection services, gateway solutions, pure IP infrastructure solutions
- Advantages by VoIP go beyond cost savings: flexibility, process support

VoIP provider market

- Chances for independent VoIP limited: VoIP offered by almost every provider group
- Case study on Lithuanian VoIP provider: quality of broadband connections as a main barrier.

Convergence (beyond broadband and VoIP)

Main drivers of convergence

- IP-transformation: VoIP, IPTV
- Mobile substitution: Telephony, Broadband, Mobile TV / Entertainment
- Digital dividend: Frequencies available for new innovative services

Outcome of this trend

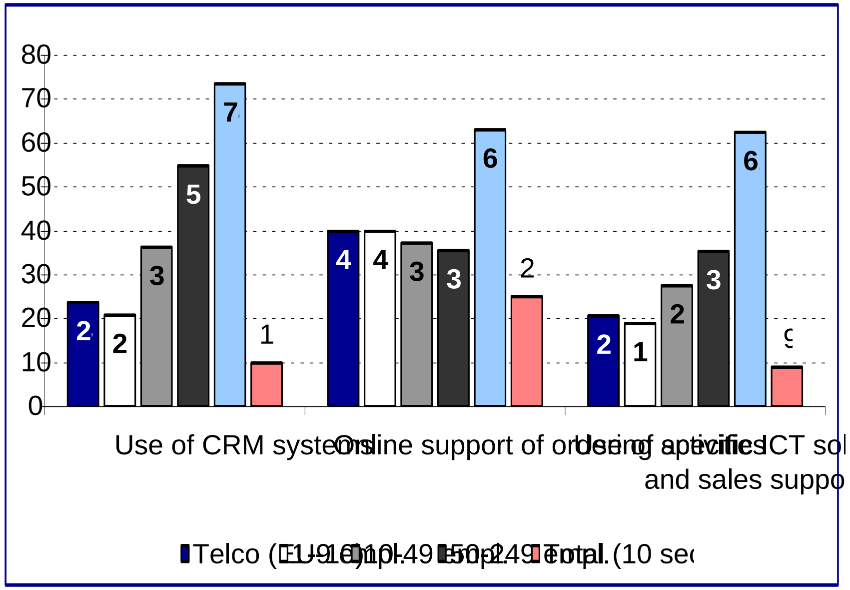
- Blurring lines between traditional telco segments
- “Triple play” (quad play) as promising strategy
- New challenges: Technical issues (new platforms for service provision, billing), Business issues (content partners), Organisational issues (new processes, partner management)

Who profits?

- Incumbents? (already active in various segments, established networks, customers, financial power)
- TV cable operators? (strong in several countries, experienced in collaboration with content partners)
- Others? (e.g. New cable operators): Case study on Grupalia Internet (ISP)

ICT to support marketing, sales and customer care

Use of customer-facing applications
(Telco, EU-10)



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- Key application area in the telco segment: Usage rates strongly above the average of all sectors
- Remarkable: relatively high usage rates among SMEs (reference model for SME activities in other sectors)
- Research question: How do small and large players in this sector embrace ICT and e-business?
- Preliminary report only a starting point: Further case studies and analysis of survey data will enrich the analyses.
- One case study discussed: Case on Budget Telecom illustrated the potential of simple e-business tools to support market entry of new players

Issues to be discussed

- **Role for policy?**
  - Broadband quality: Relevance? Countries?
  - Frequency allocation: Presentation by WiMAX Telecom
- **Missing aspects** (suggestions by IAB experts):
  - Policy implications: health risks by mobile technologies, future market structure (Who will succeed?), promotion of new networks
  - Wi-Fi,….(and other Internet access technologies?)
  - Role of new cable operators (like Grupalia Internet?)
  - Infrastructure management
  - Further aspects of digitalisation: Digital Terrestrial Television (DTT), digitally equipped cinema halls
- **Please mind limitations and focus of the report**:
  - Key issues related to the use of ICT and e-business technologies
  - Supply-related issues with relevance for ICT use in other industries