

## **Sector Impact Study**

### **ICT and e-Business in the Consumer Electronics Industry**

**Philipp Bohn, Berlecon Research**

**Workshop on "Convergence in  
High-Tech Industries"  
Brussels, 15 June 2006**

An initiative of the



**European  
Commission**

# The CE industry: Scope and trends

## ■ Scope of the CE study

- NACE Rev. 1.1 32.3: Manufacture of radio, television and communication equipment and apparatus.
- Explicitly named in NACE Rev. 2 (consumer-centric focus)

## ■ Major trends in the CE industry (reflected in Key Issues)

- **Globalisation**
  - Dominance of multinational players
  - Outsourcing of global manufacturing processes to service providers
  - Globally synchronising demand and distribution
- **Digitisation of content**
  - CE devices are increasingly used as channels for digital entertainment and information
  - Move from analogue to digital devices

## Topics in focus

---

### ICT is relevant on two levels for the CE industry

- Support of business processes
- Integral part of the products supplied

### Key issues identified

1. Broadband convergence in the CE industry
2. Digital Rights Management (DRM)
3. ICT supporting a global supply chain

### Policy implications and questions for the industry

# Broadband convergence in the CE industry

## ■ Impact of broadband

- Increased broadband penetration (*23% in EU-25, 2005*)
- Evolving online content services (*e.g. iTunes*)
- Role of CE manufacturers is altered (content distributor)

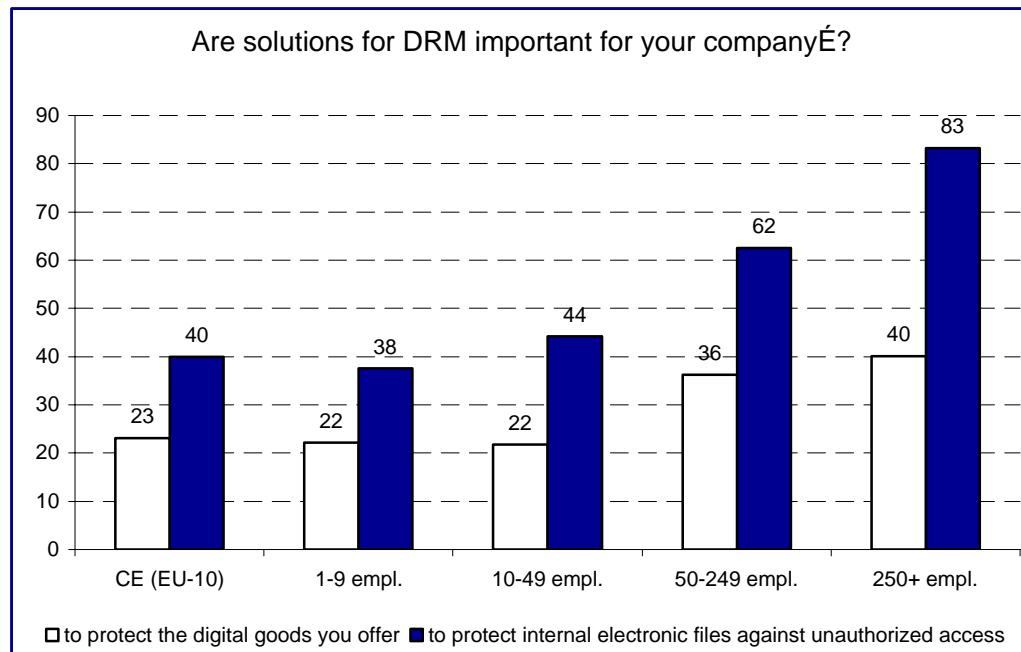
## ■ Challenges for CE companies

- How to deal with DRM issues?
- How to market converged devices and services?
- How to deal with interoperability issues?

## ■ Case study: KiSS Networked Entertainment

- Opportunities of convergence?

# Digital Rights Management (DRM)



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

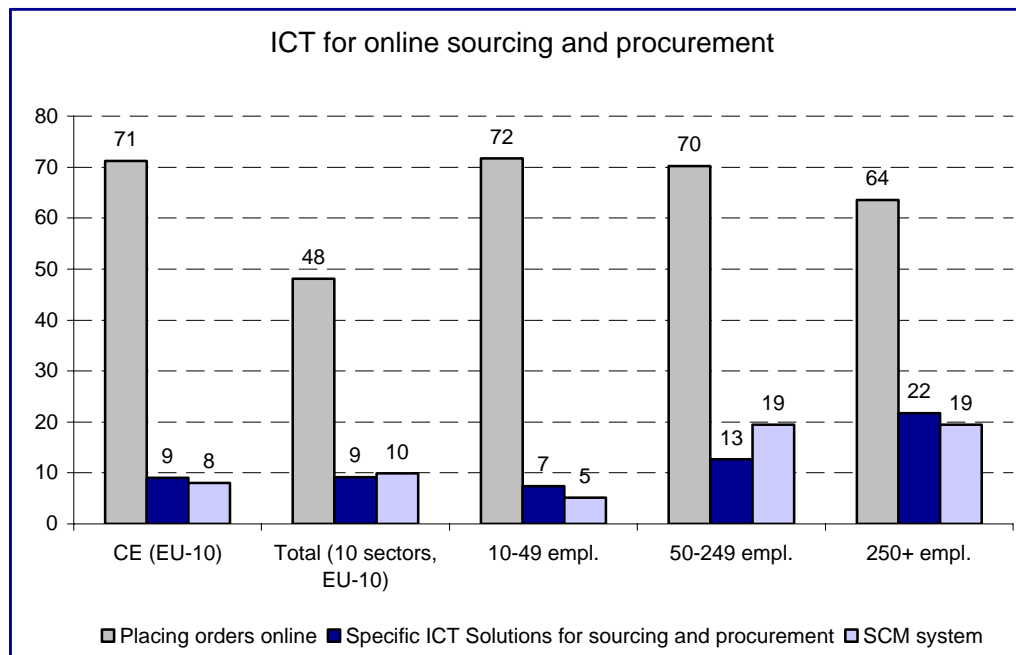
- DRM is increasingly critical for CE manufacturers
- Driver: Popularity of online content
- What are the implications for the CE industry?
- What are the major challenges?

## DRM: Implications and challenges

---

- **CE manufacturers face a conflict of interest regarding DRM**
- **Significant challenges concerning the implementation of DRM include:**
  - **Dependency on technology providers**
  - **Additional cost**
- **DRM interoperability is a key issue for the industry**
- **Open DRM frameworks are a promising approach to provide this interoperability**

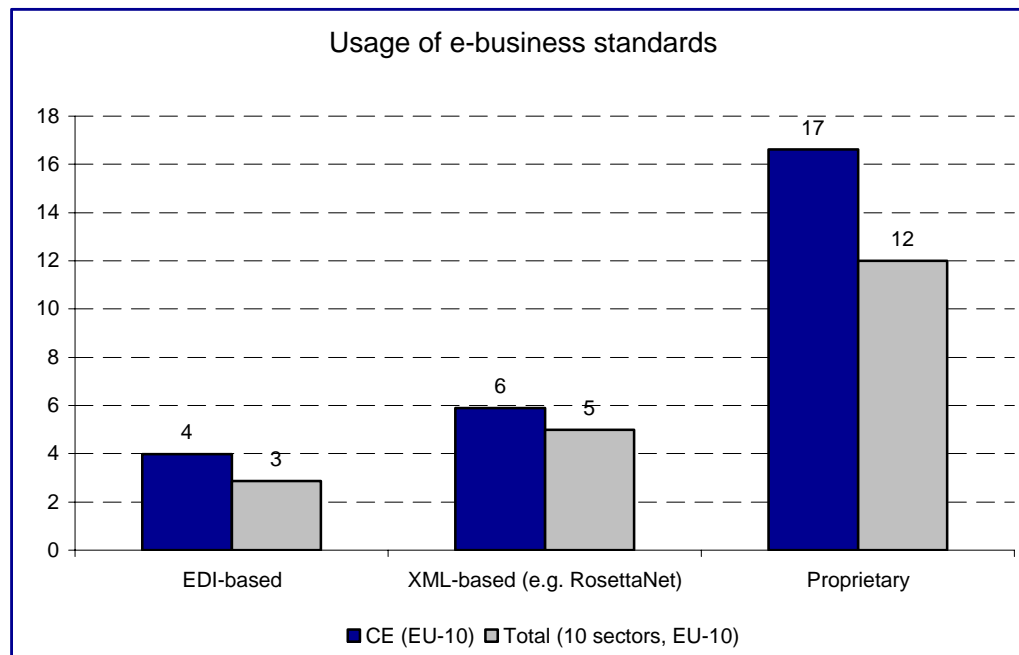
# ICT supporting a global supply chain (1)



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

- Use of sophisticated ICT seems limited, although:
- Global supply chains are tightly integrated.
- Consumer demand is subject to hypes and fashions.
- Product life cycles are extremely compressed.
- Why?

# ICT supporting a global supply chain (2)



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

Standards support the exchange of data and information between trading partners

Important industry standards include

- EDIFICE
- ebXML
- RosettaNet

XML-based standards seem to gain importance

## Evidence from case studies

- ***“We would be excited to try anything to increase our trading activities or solve problems related to procurement of components.” (Jogal)***
  - Further promotion of e-Business activities to SMEs?
- ***“For our company, human judgement is an invaluable asset, which can hardly be replicated by automated systems.” (Mio Technology)***
  - E-business as a complement to human judgement, rather than a substitute?
- ***“For some, RosettaNet is a knock-out criterion when choosing their suppliers.” (Fujitsu EMEA)***
  - Is RosettaNet the future e-Business standard?

# Policy implications and key questions

---

## Preliminary policy implications

- Consideration of convergence in the CE industry (e.g. product classifications)
- Promotion of e-Business support activities to SMEs

## Key questions for the CE audience

- How do you adapt to your new additional role as content distributor?
- How do you solve the conflict of interest regarding DRM?
- Will RosettaNet dominate in the CE industry?

## More information

---



**Web:**

[www.ebusiness-watch.org](http://www.ebusiness-watch.org)

**e-Mail:**

[info@ebusiness-watch.org](mailto:info@ebusiness-watch.org)

[pb@berlecon.de](mailto:pb@berlecon.de)