

Evolution to Broadband Triple play An EU research and policy perspective

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http://www.cordis.lu/ist/directorate_d/audiovisual/index.htm

Making IPTV work - 2 February 2005 - EBU, Geneva

What is Broadband Triple play?

- Broadband triple play is a proposal from the Broadband network and service providers to bundle
 - High speed Internet services
 - Voice services (PSTN or VoIP)
 - Digital television services
- Broadband 3-play is one expression of convergence between Telecom, Media and IT
- Service bundling is driven by
 - Business reasons (new revenues, fighting customer churn,...)
 - The packetisation of the BB access networks
 - Availability of mass-market Multi-Media terminals

Broadband 3-play and IPTV impacts

- Network and subscriber management solutions for broadband access
- Solutions for A-V service offerings and A-V terminals (computer centric entertainment)
- Business models for network providers, service providers, content providers and “classical” broadcasters.
- Competing models for providing digital A-V services, being DVB-S, DVB-T, DVB-H, MHP (can be competing or complementary).

=> Research, business and regulatory challenges

Facing the challenges at European level

Research & Development

- IST programmes in the FP

Wider Adoption, best use

- eEurope initiatives

- **Right Regulatory Environment**
 - - ensuring fair competition
 - - and the rights of citizens and businesses

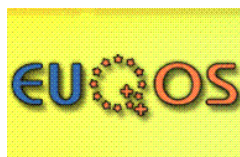
Funding research and development

EU research efforts in BB 3-play area

- At least 2 Strategic Objectives cover BB 3-play and IPTV technology area:
 - Networked Audio-Visual Systems and Home Platforms
 - Broadband for All
- With a long history (under different names and FP) of successful research and contribution to standards:
 - Digital TV
 - MPEG-4 foundations
 - DVB, DVB MHP
 - Signal processing
 - QoS standards
 - IPv6
 - Fiber to the Home solutions

IPTV & BB 3-play research in EU projects

- *3-play ready network solutions:*
 - multicast in BB fixed wired and wireless access networks, PLC access networks
 - Evolution towards IPv6
 - Peer-to-peer interactive IPTV
- *3-play service enablers:*
 - Service provisioning and QoS
 - Service auto-configuration and subscriber management with DHCP



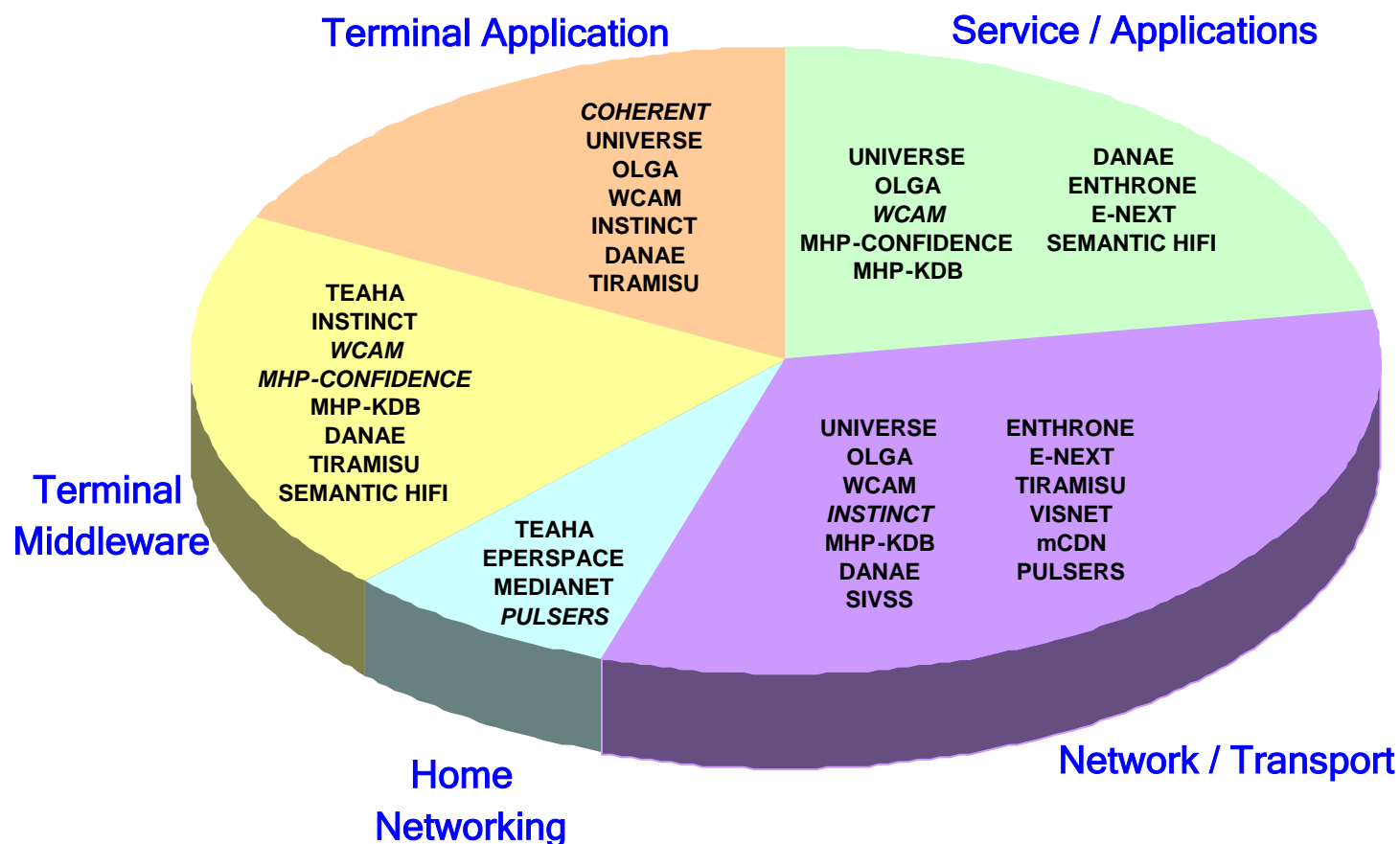
IPTV & BB 3-play research in EU projects

- *The multi-media home:*
 - Home service gateways
 - Home networking
 - Home and terminal management
- *Content delivery:*
 - Digital rights management
 - Scalable video coding



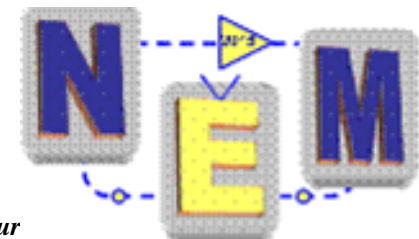
This research is embedded in larger SO area

e. g. strategic objective Networked audio-visual systems and home platforms



Shaping future research

- 7th framework programme
 - Continuity in major themes
 - Adoption in 2006
- Networked & Electronic Media Technology Platform
 - Industrial initiative of main stakeholders to federate around a Strategic Research Agenda
 - Federate future research at all levels
 - Strategic research agenda will be defined and agreed in the coming months
 - Increasing impact of European research in NEM domain
 - Articulate input to regulation and policy



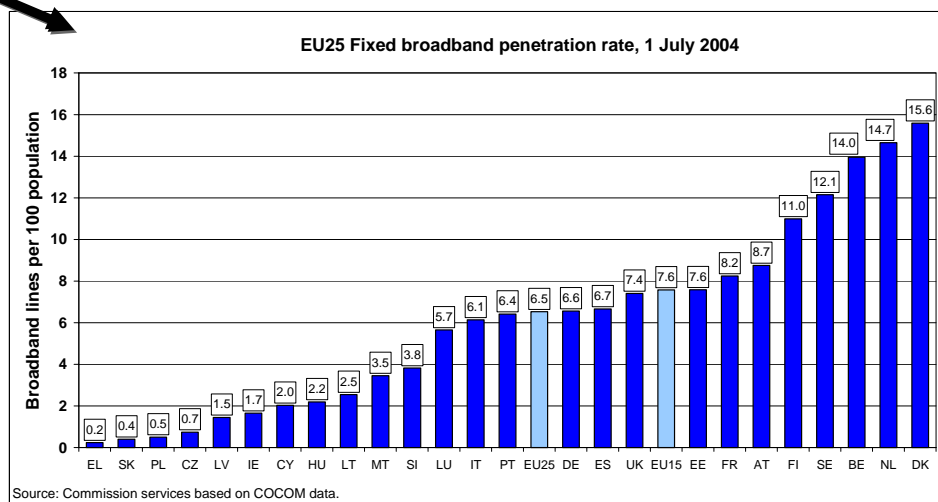
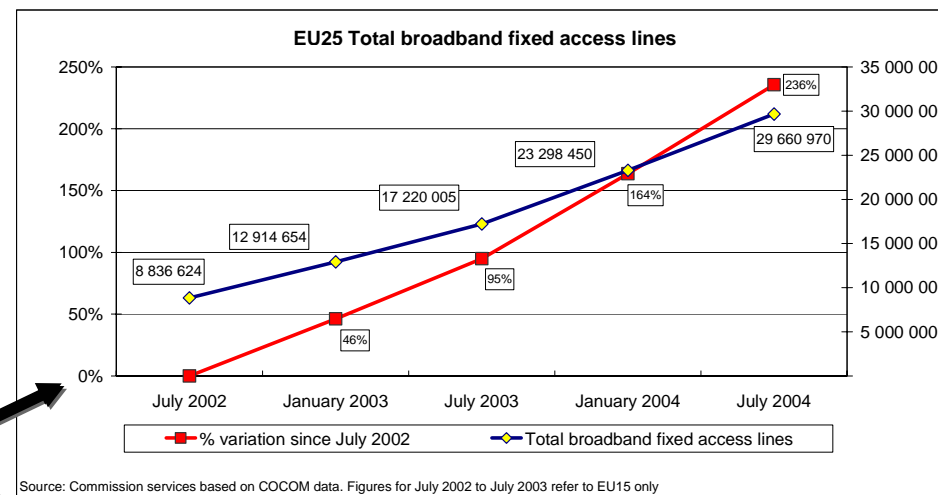
Wider adoption, best use e-Europe policy

BB 3-play & e-Europe Policy

- e-Europe 2005: encouraging e-inclusion through broadband deployment

- Current BB deployment rates in EU25

- Bundling of services in BB 3-play promotes the adoption of Broadband services. => new tool for e-inclusion



“Challenges for Europe’s Information Society beyond 2005: Starting point for a new EU strategy”

- Communication adopted on 19 November 2004.
 - Basis for follow-up of e-Europe 2005
- step up research and investment in information and communication technologies (ICT),
- promote ICT take-up throughout the economy.
- ICT tailored to citizens’ needs and expectations,
 - enable participation in socially fulfilling and culturally creative virtual communities.
- Remaining challenges:
 - electronic inclusion and citizenship,
 - content and services,
 - public services, skills and work,
 - ICT as a key industry sector, interoperability,
 - trust and dependability and ICT for business processes.

=> Rich multimedia services over Broadband will have a role to play

Right Regulatory Environment **ensuring fair competition** **&** **the rights of citizens and businesses**

Scope of new regulatory framework (2002/21/EC)

Content Services

- outside scope of new framework
(e.g. broadcast content, e-commerce services)

Communications services
(e.g. telephone, fax, e-mail, SMS,
video telephony)

Communications networks
(fixed, mobile, satellite, cable TV, powerline systems,
networks used for radio and television broadcasting)
and associated facilities (e.g. CAS)

The package

**Framework
Directive
(Art. 95)**

Authorisation Directive

**Access & Interconnection
Directive**

Universal Service Directive

Data Protection Directive

**Unbundled local loop
Regulation**

**Liberalisation
Directive
(Art. 86)**

**Spectrum
Decision
(Art. 95)**

ex ante regulation

- Scope of *ex ante* regulation
 - *Ex ante* regulation only imposed in markets where competition is not effective (presence of undertakings with significant market power) AND competition law remedies do not suffice
- Who is subject to *ex ante* regulation?
 - Only undertakings with a dominant position in a defined market
 - NRA designates such players as having Significant Market Power – SMP - and imposes appropriate obligations
- Markets susceptible to *ex ante* regulation (2003/311/EC) – relevant to BB IPTV services
 - (11) Wholesale unbundled access (metallic loop)
 - (12) Wholesale broadband access
 - (18) Broadcasting transmission services, to deliver broadcast content to end users

Provisions that may apply on SMP players

- Must-carry and the universal service directive
 - Must-carry rules: ensure certain broadcast channels and services are made universally available to users.
 - must-carry obligations: only for networks where a significant number of end-users of such networks use them as their principal means to receive radio and television broadcasts”.
 - Does not apply to e.g. fixed DSL at the present stage (2002) of technological and market development.
- Access to networks & associated facilities
 - access remedies can be imposed on operators with significant market power in specific markets where competition is not effective
 - access remedies are e.g.
 - transparency ;
 - non-discrimination ;
 - accounting separation ;
 - access to, and use of, specific network facilities ;
 - price control and cost accounting obligations.
 - E.g. obligations on certain operators *to provide access* to application program interfaces (APIs) and to electronic programme guides (EPGs),
 - E.g. obligations on Conditional Access Systems operators *to provide services* to other broadcasters

Provisions on Standardisation and interoperability

- Standardisation should remain primarily a market-driven process.
- Sometimes appropriate to require compliance with specified standards at Community level to ensure interoperability
- decision to make the implementation of DVB (ETSI) standards mandatory should follow a full public consultation.
- Member States should encourage :
 - providers of digital interactive television services and of all enhanced digital television equipment,
 - use an open API (Application Program Interface)
 - regardless of the transmission mode,

Applications of EU regulatory framework

2004

- Interoperability of interactive digital services (article 18)
 - **31 July 2004** - Extended Impact Assessment (EIA) accompanying the Communication on Interoperability of interactive digital TV services
 - Commission draft proposal: *“Member states continue to encourage open standards, including migration from proprietary standards, but do not mandate them”*
- Consultation on Treatment of Voice over IP in the new regulatory framework
 - **14 June 2004** - INFORMATION AND CONSULTATION PAPER on the regulatory treatment of Voice over Internet Protocol (VoIP) under the EU regulatory framework.
 - « VoIP will be bundled with other IP services »
- Review of the « Television without Frontiers » directive
 - Launched in 2002

Applications of EU regulatory framework

2005 – 2006

- Review of the regulatory package
 - Following article 25 of Framework directive: *“The Commission shall periodically review the functioning of this Directive, on the first occasion, not later than three years after the date of application (25 July 2003)”*
 - Take into account major developments in technology and markets
 - e.g. convergence of services over IP
 - No change in the fundamental principles of the framework:
 - Principle of technology neutrality
 - Use of competition law for defining and assessing markets and dominance
 - Issues for convergence and 3-play:
 - interoperability (Access & interconnection directive): open access, fair and non-discriminatory terms
 - service bundling: aspects related to competition e.g. a dominant operator could leverage their dominant position in one segment to expand to another.

Conclusions

EC activity and policy around BB 3-play

- Research: funds collaborative research and consensus building on future Broadband network and service developments
 - The Commission welcomes the definition of an IPTV standard
- E-Europe 2005: encourages deployment of BB services for larger service offering to all EU citizens
 - Post e-Europe 2005: ICT as an engine for growth; research; favourable environment to ICT deployment; e_inclusion
- Regulation: new regulation based on competition law and flexible market definition evolving with changing markets
 - Treatment of BB 3-play in EU regulatory framework ongoing with Voice over IP consultation and will deepen with review of regulatory package in 2005 & 2006