Broadcast to Handhelds
The road ahead

The EU funded R&D perspective
Jean-François Buggenhout

DVB World 2005
Dublin, 2–4 March 2005
Delivering TV services to handheld devices

**Different actors**
- Broadcast
  - Technical expertise
  - Content
- Mobile (3G) operators
  - Customer base
  - Billing systems

**Different business models are possible**
- Broadcaster-led
- Mobile operator-led
- Independent service provider

See recent DigiTAG handbook
www.digitag.org
TV services on handheld devices: the killer application?

- EU is not Asia, nor US
- Consumers would prefer subscriptions
  - 80% would pay up to €12/month (Nokia/Vodafone)
  - 40% (Sony Ericsson)
  - In the US: up to $20/month (A.T. Kearney)
- European consumers are “on the move”
  - Larger public transport than in the US
  - Only 13% would watch video while on the move (Jupiter)
  - Would watch 3-15 minutes daily (average) → short!
    → News, Weather, Sports, Music
Broadcast and mobile operators: common objectives → co-operation

- Reduce overall costs
- Maximise network efficiency
- Spectrum efficiency
- Increase Quality of Service (QoS)
- Improve services usability and seamless experience
- Enhance existing services and provide attractive (multimedia) new services
Multimedia... but what about interactivity?

- **Mobile networks provide**
  - Good return channels
  - Different billing mechanisms
- **Broadcasters provide**
  - Good content for generating revenues
  - Streaming bandwidth
- **Mobile devices provide**
  - Good interface for interactive services
- **...but what about interoperability?**
  - The role of middleware is crucial in order to ensure the seamless service provision user experience
  - Need for an OPEN API
EU funded R&D on composite networks

- EU Public funding through Research Framework Programmes

- Since the 4th Framework Programme (ACTS) R&D projects are investigating the main aspects of composite networks (e.g. MEMO, M3A, MCP);

- Research work continued in the context of FP5 (CAUTION++, MONASIDRE, DRIVE, OverDRIVE)
6th Framework Programme

- Covers 2002-2006
- Overall budget for IST = €3.98B
- Calls for proposals: Call4 currently open

WP03-04
Call1 Call2

WP05-06
Call3 Call4 Call5 Call6 (tbc)

FP6
2003 2004 2005 2006

FP7 preparation
Proposal on FP Adoption WP + Calls

2007 -2010

The views expressed in this presentation are of the author, and do not necessarily reflect the views of the European Commission
6th Framework Programme
IST Strategic Objectives

Call 4

- 2.4.1 Nanoelectronics
- 2.4.2 Technologies and devices for micro/nano-scale integration
- 2.4.3 Towards a global dependability and security framework
- 2.4.4 Broadband for All
- 2.4.5 Mobile and Wireless Systems and Platforms Beyond 3G
- **2.4.6 Networked Audio Visual Systems and Home Platforms**
- 2.4.7 Semantic-based Knowledge and Content Systems
- 2.4.8 Cognitive Systems
- 2.4.9 ICT Research for Innovative Government
- 2.4.10 Technology-enhanced Learning
- 2.4.11 Integrated biomedical information for better health
- 2.4.12 eSafety – Co-operative Systems for Road Transport
- 2.4.13 Strengthening the Integration of the ICT research effort in an Enlarged Europe

Call 5

- 2.5.1 Photonic components
- 2.5.2 Micro/nano based sub-systems
- 2.5.3 Embedded Systems
- 2.5.4 Advanced Grid Technologies, Systems and Services
- 2.5.5 Software and services
- 2.5.6 Research networking testbeds
- 2.5.7 Multimodal Interfaces
- 2.5.8 ICT for Networked Businesses
- 2.5.9 Collaborative Working Environments
- 2.5.10 Access to and preservation of cultural and scientific resources
- 2.5.11 eInclusion
- 2.5.12 ICT for Environmental Risk Management

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The 6th Framework Programme
SO.2.4.6 : NAVSHP

• FP6 IST Call1 : INSTINCT
  → Integrated Project (IP), EU & Brazil

• FP6 IST Call3 : PARTAKE & PHENIX-SSA
  → SSA : Cooperation with China

• FP6 IST Call4 :
  • Closing date : 22nd March 2005
  • Indicative budget for NAVSHP:
    63M€ (90% of pre-allocated budget)
    • IPs, NoEs: 75%;
    • STREPs, CAs, SSAs: 25%

• FP7 (2006-2010) in preparation...

http://www.ist-INSTINCT.org/
Conclusion

• Cooperation of broadcasting and cellular bearers will...
  • Enhance the wireless user experiences;
  • Improve/optimise the (cellular & broadcast) network operation;
  • Enable the provision of good quality rich multimedia to large user groups;
  • Open future opportunities for dynamic RRM and even flexible spectrum allocation

• Need for an open platform for interactivity

• EU funded contribution within FP6 is significant
Further information

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