



Information Society



European Commission

# Broadcast to Handhelds The road ahead



**The EU funded R&D perspective**

Jean-François Buggenhout

**DVB World 2005  
Dublin, 2-4 March 2005**

04 March 2005 - 1

*The views expressed in this presentation are of the author, and do not necessarily reflect the views of the European Commission*

# 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](http://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

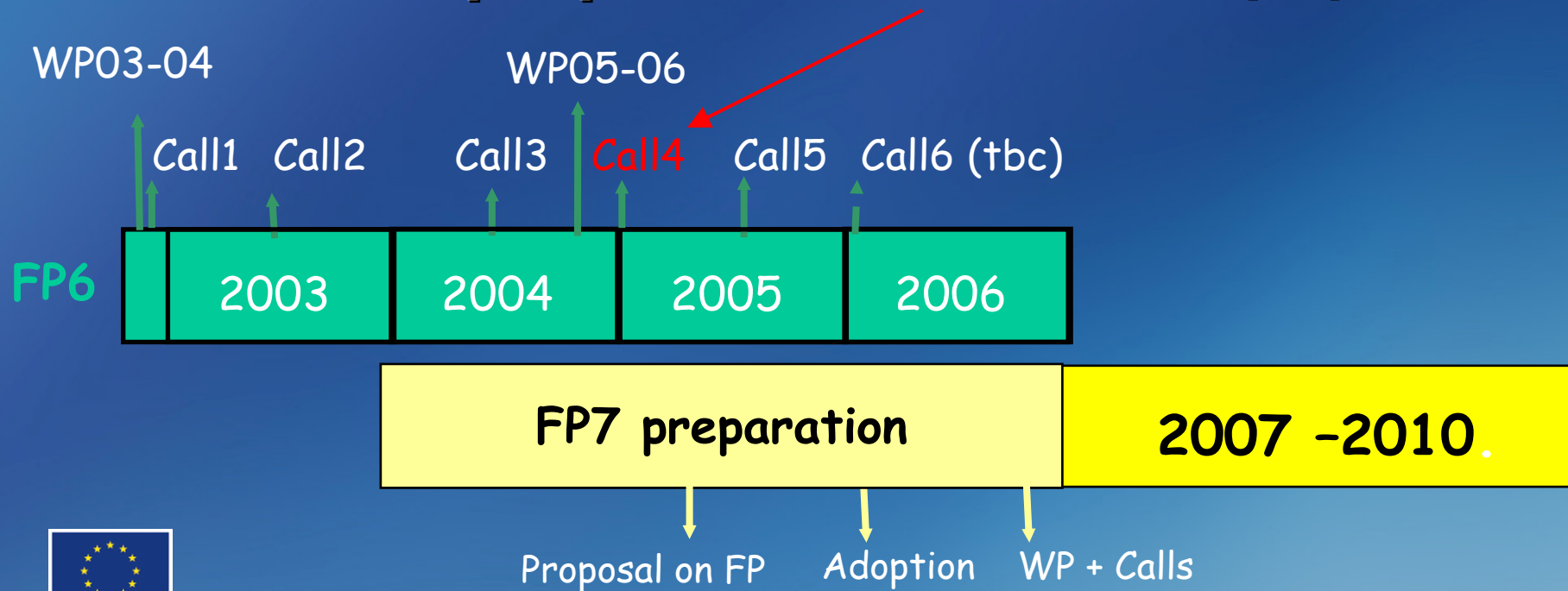
- EU Public funding through **Research Framework Programmes**
- Since the 4th Framework Programme (ACTS) R&D projects are investigating the main aspects of composite networks (e.g. MEMO, M3A, MCP);
- Research work continued in the context of FP5 (CAUTION++, MONASIDRE, DRIVE, OverDRIVE)





# 6<sup>th</sup> Framework Programme

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



# 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

NAVSHP

## 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





# The 6th Framework Programme

## SO.2.4.6 : NAVSHP



- **FP6 IST Call1 : INSTINCT**

→ Integrated Project (IP), EU & Brazil

<http://www.ist-INSTINCT.org/>

- **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...**



# Conclusion

- **Cooperation of broadcasting and cellular bearers will...**
  - Enhance the wireless user experiences;
  - Improve/optimize 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

Audio  
Visual News

<http://www.cordis.lu/fp6>

<http://www.cordis.lu/ist>

[http://www.cordis.lu/ist/directorate\\_d/audiovisual/index.htm](http://www.cordis.lu/ist/directorate_d/audiovisual/index.htm)

[http://europa.eu.int/information\\_society/topics/ecommerce/index\\_en.htm](http://europa.eu.int/information_society/topics/ecommerce/index_en.htm)



**Jean-François BUGGENHOUT**

Scientific Officer

Networked Audio-Visual Systems, Home Platforms

**European Commission**

Information Society and Media Directorate General

Mail: European Commission – Office BU29 06/04 - BE-1049 Brussels

Address: Avenue de Beaulieu/Bealeiulaan 29, BE-1160 Bruxelles/Brussel

Tel: +32-2-299.52.49 - Fax: +32-2- 296.21.78 – E-mail: Jean-Francois.Buggenhout@cec.eu.int

Web: [http://www.cordis.lu/ist/directorate\\_d/audiovisual/index.htm](http://www.cordis.lu/ist/directorate_d/audiovisual/index.htm)



European Commission

04 March 2005 - 11