



PORTECH - Portugal Technology

Miguel Dias

European Initiative on

NETWORKED and ELECTRONIC MEDIA

The NEM Initiative 3rd December 2004



Inovação



Portuguese ICT Cluster

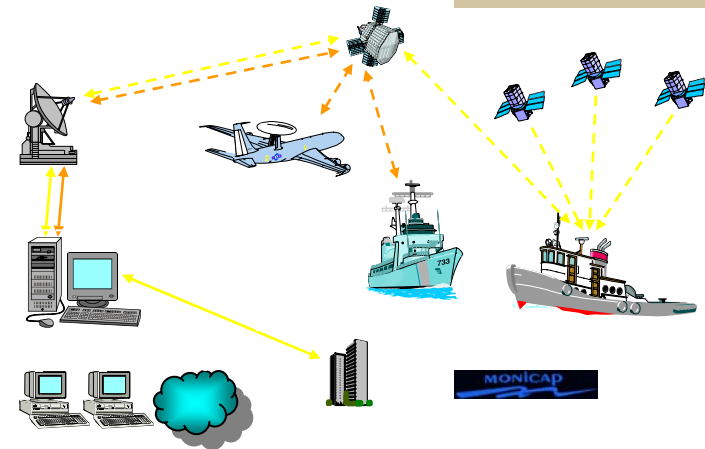


- ◆ 6 R&D Institutes from Academia
 - ADETTI
 - INESC-ID
 - INESC-INOV
 - INESC Porto
 - UNINOVA
 - FFCUL
- ◆ 1 Telecom Operator:
 - Portugal Telecom R&D Institute - PT Inovação
- ◆ 1 Manufacturer
 - Siemens S.A. - Telecommunications and Multimedia Unit
- ◆ **Mission:** Create a ICT Cluster with critical mass, that promotes develops and exploits Portuguese R&D in ICT, in National and International contexts, and improves the competitiveness of the Portuguese industry
- ◆ Consolidated R&D Budget in ICT: 30 Milion Euro/Year
- ◆ Consolidated Man/Year resources in ICT R&D: 164

Telecommunication Systems and Networking



- ◆ Service Creation and Service Delivery Platforms
- ◆ Converged Multimedia Network Solutions
- ◆ Access Network Evolution (Fixed, Wireless, Celular)
- ◆ Trust and Security Technologies
- ◆ Information Technologies for Network, Service and Bussiness Management
- ◆ Microelectronics
- ◆ Digital TV
- ◆ Airport Networks for mobiles surveillance and control
- ◆ Content Multistreaming & multicasting
- ◆ Space missions (atmospheric study, telecommunications, localization, image processing)

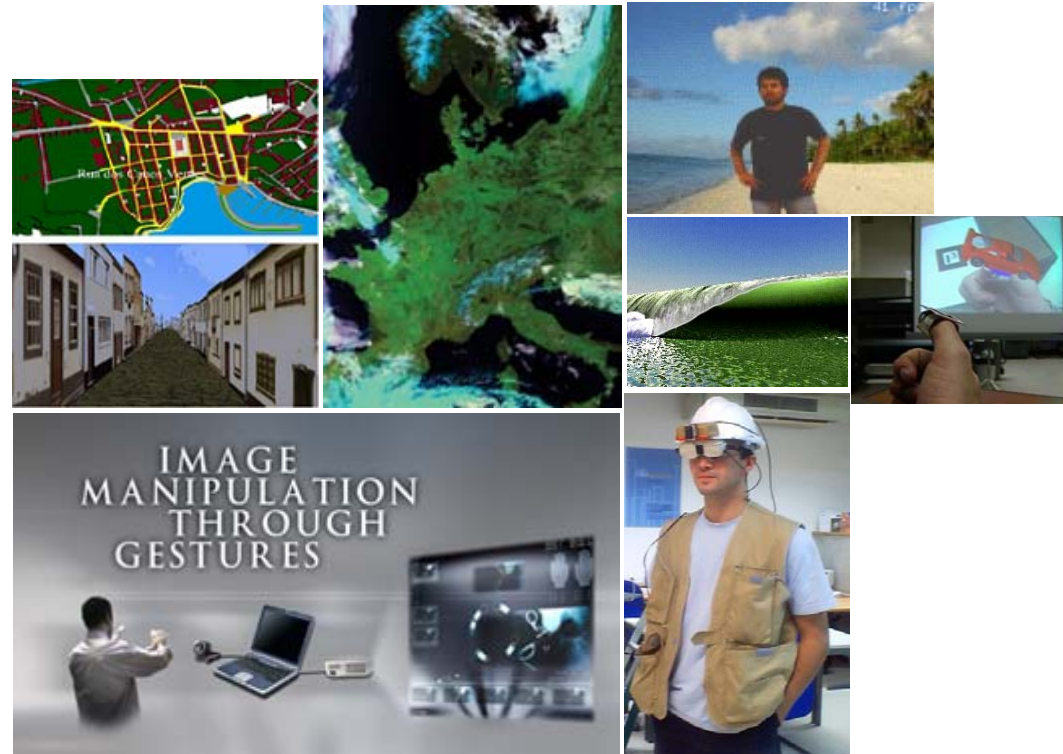


Digital TV
 Network, Telecom Operators
 Content life-cycle, Video surveillance
 Audio-visual
 e-Health, e-Learning, e-Government,
 e-Inclusion

Multimedia Technologies and Home Platforms



- ◆ Applications for the Information Society
- ◆ Mobile and Ubiquitous Computing
- ◆ *Wearable computing*
- ◆ JPEG2000 image coding
- ◆ Image processing
- ◆ Computer Vision
- ◆ Computer Graphics
- ◆ Mixed and Augmented Reality
- ◆ Speech synthesis and recognition
- ◆ Multimodal Interfaces
- ◆ *Design Computing*
- ◆ Computer Games

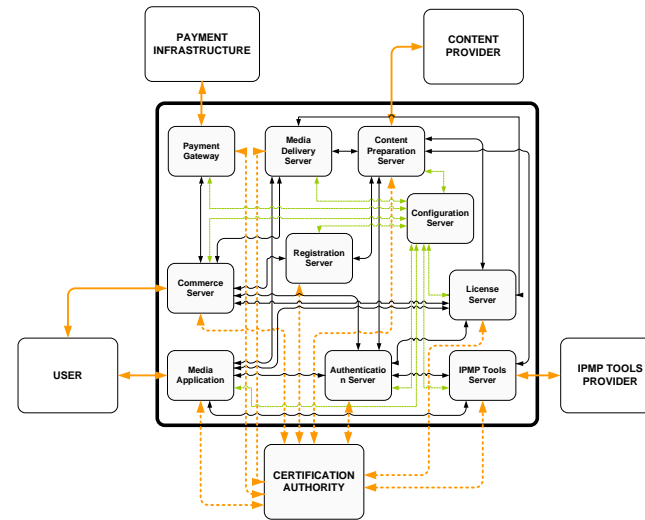


Earth Observation; Architecture; Design; Mobile Multimedia; *Video Games*; Health; Entertainment; Art; Tourism; Defense

DRM – Digital Rights Management



- ◆ Copyright protection (MP3, MPEG4, MPEG-21, JPEG2000)
- ◆ Multi-content; multi-standard; OS platform independent
- ◆ Interoperable DRM
- ◆ Conditional Access Technologies
- ◆ *Open Source Software:* OpenSDRM, Open Secure Digital Rights Management
- ◆ *Standards:*
 - ISO/IEC JTC1/SC 29/WG11 MPEG-4 IPMP-eXtensions
 - Referência e software and conformance testing
 - MPEG-7 IPMP
 - DMP - *Digital Media Project*
 - DVB - *Digital Video Broadcast*



WCAM



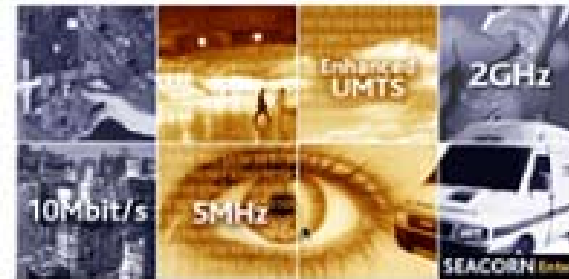
ENTHRONE

Digital TV; Telecom Operators; Service Operators; Content Producers: Image, Audio, Vídeo; Video surveillance

Beyond 3G Networking



- ◆ 'Enhanced' UMTS (Post Release 6 - 3GPP)
 - Link level
 - Nivel network subsystem (RNS)
 - HSDPA - high-speed downlink packet access
 - Up to 10 Mbps a 5 MHz, for *best effort packet service* in the *downlink*
- ◆ Cellular systems of the future
- ◆ Air interface of the future(UMTS)
- ◆ Multimedia services broadcast/multicast/unicast over UMTS
- ◆ IP *wired* and *wireless networks*



B-BONE

Mobile Multimédia; Telecom Operators; Service Operators; Networks

NEM - NETWORKED and ELECTRONIC MEDIA



- ◆ PORTECH expresses its commitment in collaborating with other partners and participating in NEM towards the strengthening and breakthrough in the European technological position in NETWORKED and ELECTRONIC MEDIA

Thank you very much for your attention

Miguel Dias, Portech (www.portech.org)