

ICT & Digital Cinema A new start?

Roberto Cencioni

DG Information Society and Media
Unit INFSO.E2 - Content & Knowledge

infso-e2@ec.europa.eu



European Commission
Information Society and Media

A striking contrast

- rich tradition of stories and art forms from diverse cultures
- key strengths in media technologies, post production & special effects, imaging ...
 - content/media widely regarded as a lead market for ICT
- and yet digital content still accounts for small fraction of total content market (5% of Europe's GDP)
- market dominated by USA content
 - 20% of DVDs sold in Europe have European content
 - 70% of films are American, or co-produced with USA

Main EU actions

- **i2010**, regulatory framework, support mechanisms, WTO & international co-operation
- **MEDIA 2007**
 - Europe's film industry, 755 Meuro in 2007-2013
 - Distribution & promotion of European films across Europe and worldwide
 - 17 MEDIA supported films shown during the festival
- **ICT within Framework Pgme 7 (2007-2013)**
 - Collaborative (multi-party/nation) R&TD
 - Several leading-edge domains including Networked Media and Intelligent Content
 - Overall ~9 Beuro of which ~2 Beuro this and next year

A changing landscape

- Content consumption is changing, and so is relationship between viewer and content
- Consumers demand a better experience, more choice, more control
- Social media vs. mass media, consumer-generated content, many-to-many
- Market segmentation implies smaller audiences, smaller budgets
- Programme brands exploited across media ...

Hence:

- Need for higher quality
- Pressure to reduce production costs
- Creators must do more and need easier tools
- Ease of content adaptation & reuse is critical
- Workflow needs to change
- New business & revenue models must be found ...

ICT is a powerful enabler

- **Story creation**
 - explore new forms of expression, build interactive stories, assemble stories from many sources
- **Production**
 - high-quality images, shots labelled using metadata, automatic systems to analyse & enter metadata, effective data compression
- **Post production**
 - annotated “atomic” objects as opposed to huge files, reduced data storage & manipulation/transmission requirements, more integrated & flexible versioning and (re)packaging
- **Distribution**
 - (dynamic) personalisation, contextualisation ... high-quality, immersive rendering
- **Archiving**
 - organise, index, locate & retrieve
 - preservation & accessibility over time

DC and European RTD

- **Early work since mid-1990s**
 - E.g. MXF – Material Exchange Format
- **Sizeable efforts under FP6 (2004 on)**
 - WorldScreen
 - and many others relating to DC but also to iTV, games, music, 3D, media networking etc
- **Acceleration from 2007 onward**
 - nearly 200 Meuro available this and next year
 - heavy competition with other media & content related technologies
 - no dedicated “home”, a few placeholders

ICT WP 2007-08

Challenge 4

- **Digital libraries (INFISO.E3)**
 - digitisation, archival & networking
 - widely available (public) material, typically operated by institutions
 - emphasis on long-term accessibility, usability & preservation
- **Intelligent Content & Semantics (INFISO.E2)**
 - media, enterprise & scientific content
 - add “intelligence” (metadata, semantics) to creative & corporate material
 - multimedia holdings as well as “knowledge” stemming from social interaction, work patterns, business processes

Challenge 1

- **Networked media (INFISO.D2)**
 - embedded within interoperable networks & services
 - emphasis on end-to-end value chain, QoS, home & extended home
 - media content, services & applications; asset management

Networked Media, 1

- Open under ICT Call-1, closing 8 May
- **85 Meuro**
- End-to-End Systems, Service Infrastructures & Applications Platforms
 - fixed & wireless network solutions for the download & delivery of film-on-line over high bandwidth networks
 - robust security mechanisms (encryption, DRMs ...) for the safe deployment of CDNs over a variety of networks & across multiple service providers

=> Mrs Georgia EFTHYMIOPOULOU

Networked Media, 2

- Interoperable End-to-End Systems & Application Platforms
 - higher resolution visual systems & professional digital cameras; true 3D imaging & display; 2D-to-3D conversion
 - high quality colour management & contrast in 2D/3D digital imaging for post production & projection; mastering & digital intermediates;
 - lower cost, affordable play out and 2k/4k projector technology; more efficient compression algorithms
 - workflow & data handling, warehousing ...

Intelligent Content, 1

- **Open**, ICT Call-1 -- and then under Call-3 (Q4)
- **51 + 50 = 101 Meuro**
- Authoring
 - “*creativity*”: explore new media paradigms & novel forms of content; support creative process & experimentation; non-linear story-telling ...
 - user “*experience*”; interactivity; highly visual & immersive content; building on MR, simulation, animation, gaming, 3D modelling & visualisation ...
 - “*democratisation*”: cheaper, simpler, scalable-functionality personal tools – editing, remixing, sharing

Intelligent Content, 2

- **Workflow**

metadata & object based post production flows

- management, storage & retrieval of content assets
- versioning, packaging & repurposing
- adaptation to different target markets including cultural & linguistic elements
- audiovisual segmentation, summarisation, aggregation ...

- **Personalised Presentation & Consumption**

- (re)active, self-aware, adaptive ... content
- dynamic user, context & device adaptation
- immersive rendering, multimodal interaction

Info sources

- ICT under FP7 **cordis.europa.eu/fp7/ict/**
- Call information **cordis.europa.eu/fp7/dc/index.cfm**
- Unit E2 – Content & Knowledge
URL: cordis.europa.eu/ist/kct/event-fp7-in-motion.htm
mailto: info-e2@ec.europa.eu
- Unit D2 – Networked Media
URL: cordis.europa.eu/ist/audiovisual/projects/projects.htm
mailto: georgia.EFTHYMIOPOULOU@ec.europa.eu