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 SESSION 2: CONTENT AND USABILITY



Software Technologies Research in Europe


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Why is software important?


- Digital convergence**
 Powerful computational infrastructures relying on software platform
- Ambient intelligence runs on software**
 Software will be the crucial component in the interconnected world
- Laws, regulations, habits and culture**
 will be partially implemented and coded in software: privacy & data protection, business methods, accounting standards, intellectual property rights...


The capability to develop Software and Services is an essential asset in the Information Society





Disruptive changes in Software and Services


- Growing demand
- From products to services
- Increase in system complexity
- Collaborative software development and distribution (OSS)
- Emerging competition from newly industrialised countries




Can Europe master these changes?


Strengths	Weaknesses
<ul style="list-style-type: none"> • Strong secondary software industry • Strong service and integration industry • Active OSS community • Solid ind. Sectors: telecom, aeronautics, automotive • Strong specialised SMEs • Good educational standards • Multi-cultural environment 	<ul style="list-style-type: none"> • US dominance in "standard software" and applications (i.e. desk-top software) • Weak presence in standards fora • Few European IT "giants" • Less homogeneous market for standard software solutions • Fragmented academic research • Poor R&D exploitation • Outsourcing European software R&D





Can Europe master these changes? Opportunities


- Drive the shift towards "e-services"
- Master complexity
- Capitalise on the convergence of platforms (mobiles, multimedia, Internet...)
- Exploit the strong systems integration assets

Invest more in research: innovate, innovate, innovate!!!




What is the European Commission doing?

- **FP6** Research in 'Software and Services'
- **FP7** Higher research budget
Technology platforms
- **i2010** Boosting European competitiveness



FP6: Software and services portfolio

Software Engineering

Service Computing

Distributed and complex systems

F/OSS

AOSD
MODELWARE
SECSE
IntraWebs
AMIGO

DeDISys
GORDA
ASG
PROMISE

RODIN
MADAM
SODIUM

TOSSAD
CALIBRE
FLOSSWORLD

Total of 18 projects and 74M€ funding, 170 organisations

ICT in FP7: Main Themes and Activities

- Nano-electronics, photonics
- Communication networks.
- Embedded system.
- **Software, Grids, security and dependability:**
- Knowledge, cognitive and learning systems.
- Simulation, visualisation, interaction and mixed realities.

- Technology Pillars
- Integration of Technologies
- Applications Research
- Future and Emerging Technologies

Technology Platforms

- A way for industry to articulate its views
- *In ICT:* ENIAC (nanoelectronics); ARTEMIS (embedded systems), NEM (networked electronic media), eMobility (mobile and wireless communications) EUROP (robotics)

Networked European Software and Services Initiative

i2010: Three priorities

<http://www.europa.eu.int/i2010>

A Single European Information Space

- The completion of a **Single European Information Space** which promotes an open and competitive internal market for information society and media;

Innovation and investment in research

- Strengthening **Innovation and Investment** in ICT research to promote growth and more and better jobs;

Inclusion, better public services and quality of life

- Achieving an **Inclusive European Information Society** that promotes growth and jobs in a manner that is consistent with sustainable development and that prioritises better public services and quality of life