

Software & Services

European Community Research
Supporting future technologies

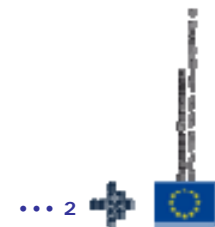
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OUTLINE

- **Trends in Software and Services**
- **Software and Services in Framework Programme 7:
Outcome of the first call**
- **Future research in FP7**



Software and Services

A key industrial sector

- 1 Mio specialists in EU
- 200 B€ market (70 B€ Software)
- EU ICT market growth mainly driven by software and IT services (EITO '06): 5.8% for 2006-07

The engine room of the Information Society

- **Today** every EU industry sector depends on Software & Services
- **Tomorrow** every EU industry sector will succeed only when mastering Software & Services complexity
- 70% of software development takes place in non-software companies



Software is everywhere

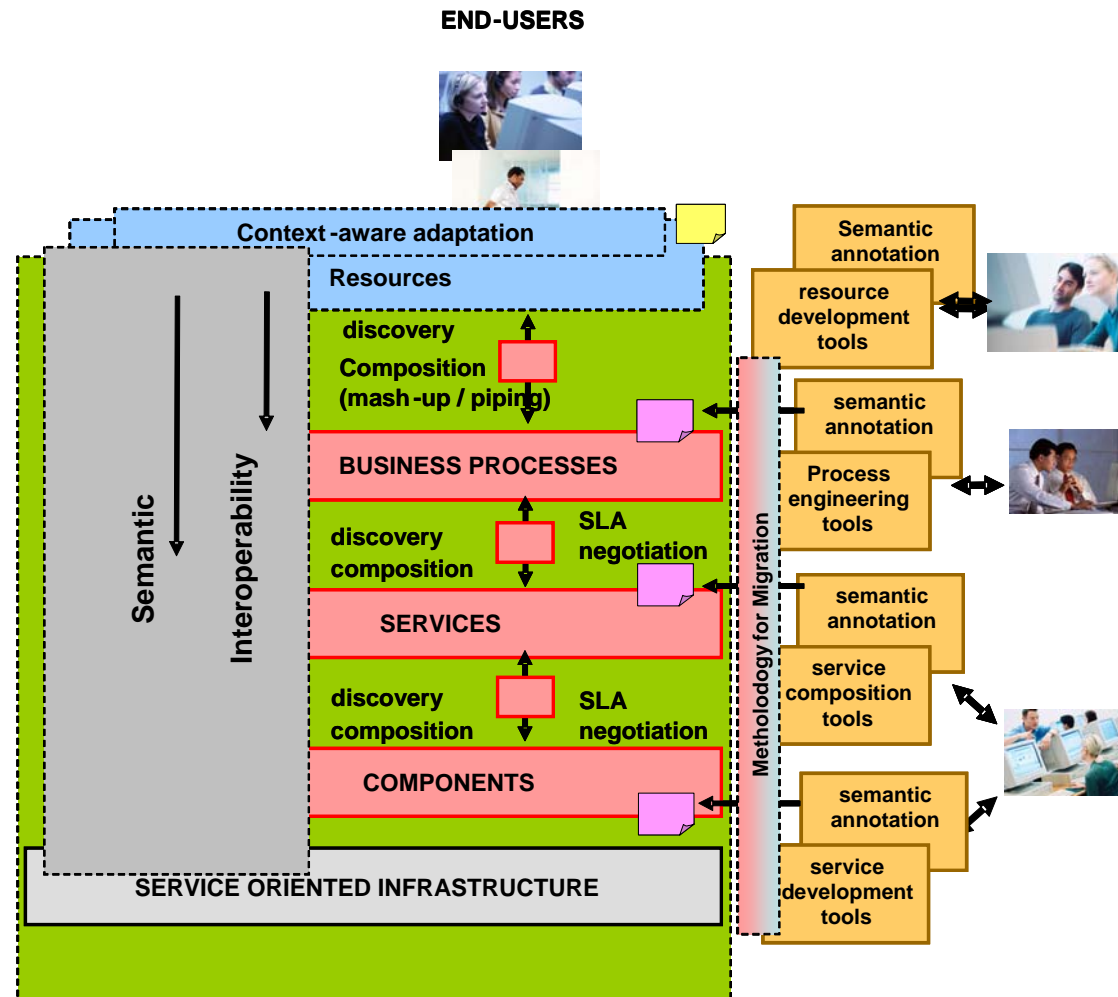
Software provides the added value, intelligence and innovation underlying competitive success in today's innovative markets

- The most innovative features of any product today are implemented by Software
 - 5 M lines of code in a 3G mobile phone, 100 M in an average car in 2010
- Siemens has more software engineers than Microsoft
- Nokia, the biggest seller of operating systems
- VoIP: Software is the key innovative enabling-element of the real-time telephony
 - Skype: a software company
- Television over the Internet (IPTV), relies on innovative software services to combine content, networks and devices



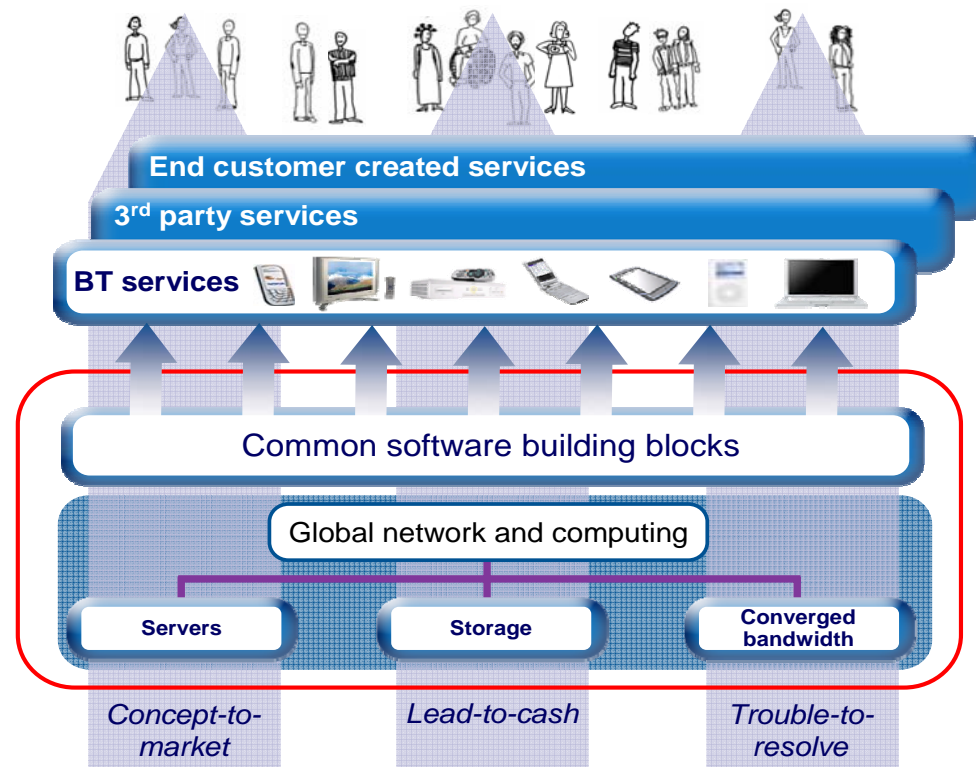
The Internet of services

The IT view (Eg. Nessi)



The Internet of services

The Telecom view (Eg. BT)



The Internet of services

Questions for Debate

- Are we going to see architectural tensions between the telco and IT service cultures?
- Is there room from moving beyond IMS platforms?
- What is going to be in the network, what is going to be in the application (e.g., location awareness, billing)?
- How do we ensure software compatibility for the user and developer?
- What will be the scope of services to be enabled in the Future Internet?
- Will this lead to a repositioning of industrial players or opportunities for new players?
- Can we miss the chance to provide opportunities for the EU service industry?





Industrial Commitment



www.nessi-europe.com

Develop a visionary strategy for **Software and Services** driven by a common **European Research Agenda** where innovation and business strengths are reinforced.

Expected impact:

- Standardisation, common service platform open standards
- Improve EU competitiveness in S&S
- Reduce sector fragmentation and align R&D efforts
- Openness: an open initiative mobilising SMEs, academia and industry
- Address key R&D and policy challenges in S&S





SEVENTH FRAMEWORK PROGRAMME

Injecting over €9bn to boost
European Information and Communication Technologies



J.M. Barroso, President of the European Commission

- Effective Internal Market
- Free & fair trade
- Better regulation
- Improving European infrastructure
- **Investing in Research & Development**
- **Boosting innovation**
- **Creating a strong industrial base**
- More and better jobs
- Adaptable workforce
- Better education and skills

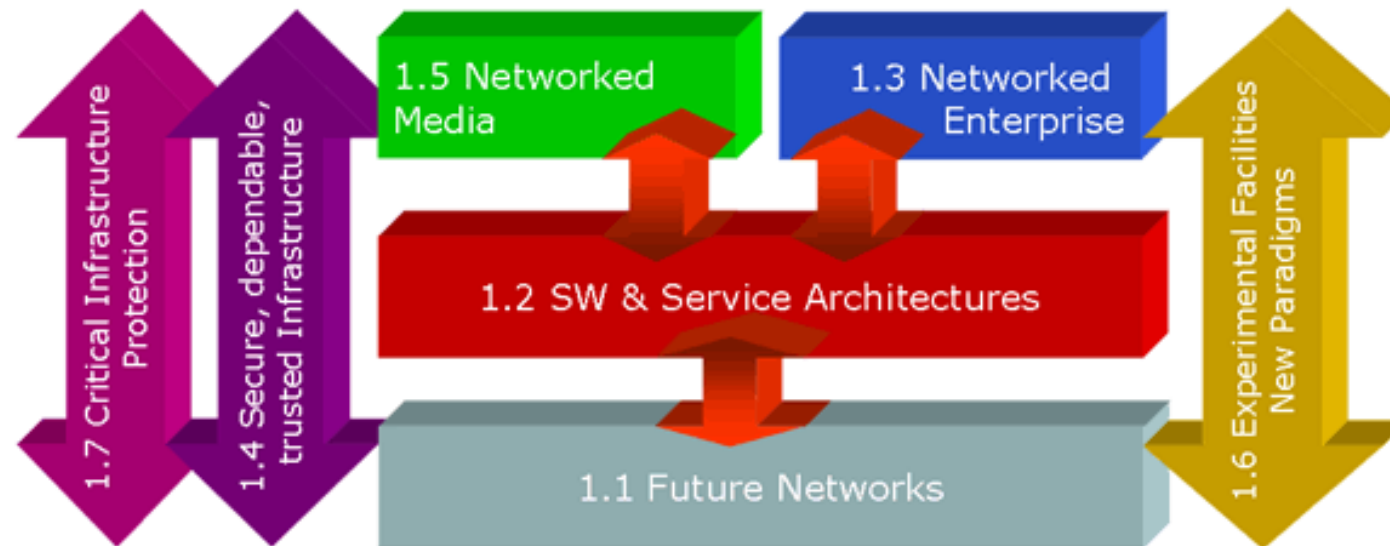
- + *Innovation in products and processes*
- + *Willingness to take risks*
- + *Investment in R&D*
- European Technology Platforms*

... preparing Europe for a global World



Challenge 1

'Pervasive & Trusted Network & Service Infrastructures' OBJECTIVES



To define and develop the network and service infrastructure of the future

- Technological evolution of the networks
- Availability of dynamic service platforms
- Converged and interoperable network environments

...towards the next generation service infrastructure



Software and Services

Overview of proposals under negotiation

Users & service front-ends

Persist, ServFace, m:Ciudad, ALIVE, OPEN

Services

SLA@SOI, SOA4ALL, Romulus, ADMIRE, SHAPE

Infrastructure/Virtualisation

RESERVOIR, IRMOS, SmartLM, STREAM, OMP

Reference service architecture
NEXOF

Engineering (complexity, dependability)

DEPLOY, S-CUBE,
Protest, Q-Impress,
FAST, COMPAS,
MANCOOSI,
MOST, DIVA

Support actions

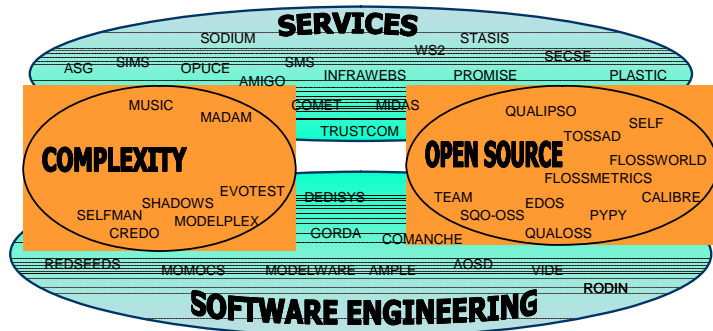
NESSI 2010, Service Web 3.0, Flossinclude



Software and Services

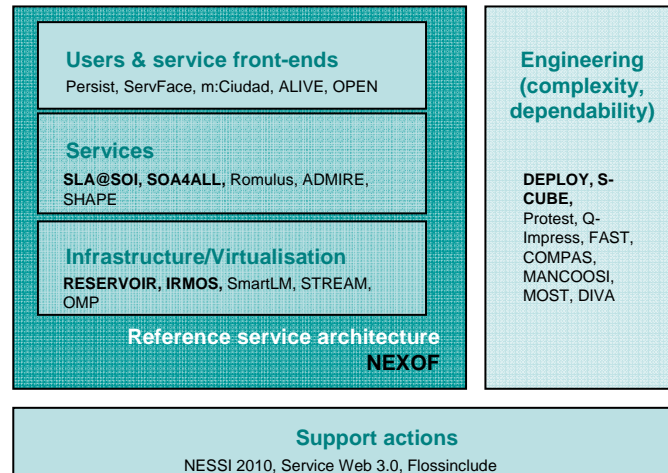
Planning future research in FP7

FP6



FP7 – Call 1

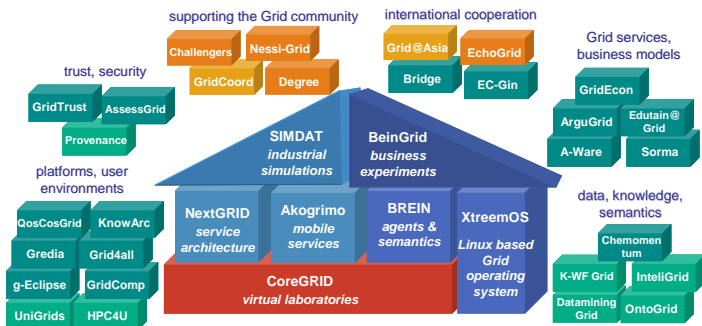
FP7
WP 2009-10



Evolution
telecom involvement
reference architectures

Services in the
Future of Internet

New research
subjects?



- Open Web consultation until mid December 2007 (Cordis)
- Workshop planed for February 08



Future Challenges

Services for

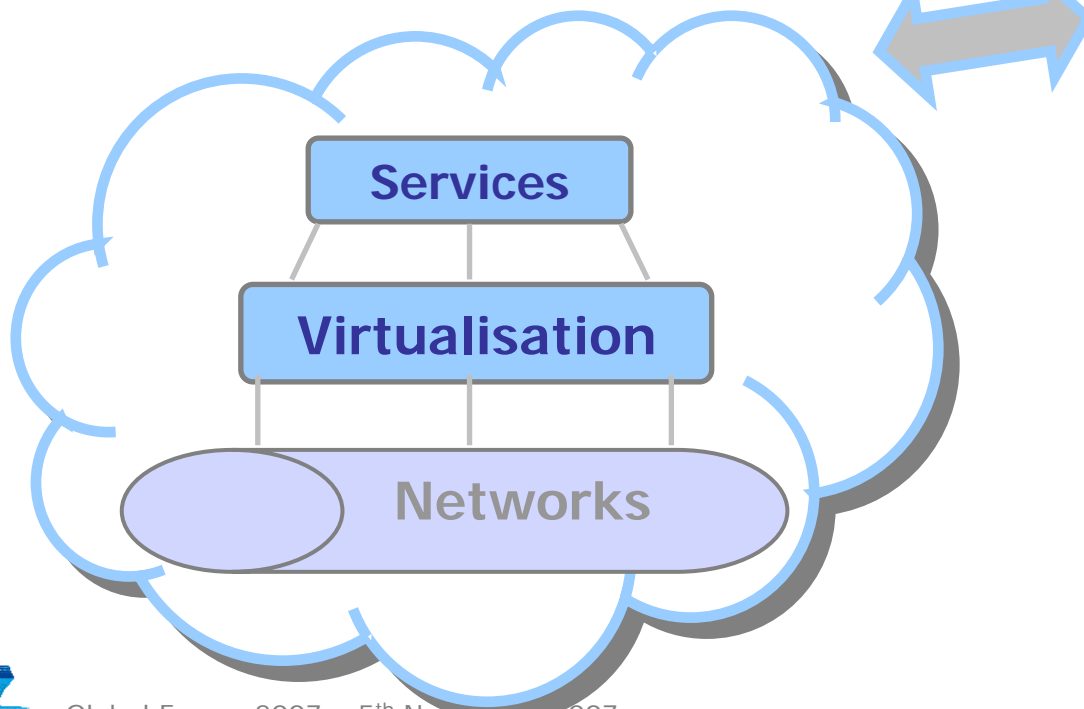
**Personal
smart spaces**

**Future
Internet**

Convergence

Future Challenges

Services for



Personal Smart Spaces



Conclusions

- **Software: Essential for industrial competitiveness in all sectors**
 - Supporting better, cheaper and faster Software development
- **Convergence; Not just IT!**
 - Industrial & market revolution. A new opportunity for Europe
- **Future Internet: Internet of Services**
 - Supporting the service economy (70% of GDP in modern societies)



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