

# European Research Policy for ICT

MST event - Permanent Representation of  
Baden-Württemberg

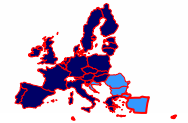
Brussels, 10 May 2007

Rosalie Zobel

Director, Components and Systems  
European Commission, Brussels

# The renewed Lisbon agenda

- Markets & Competition: Europe - A more attractive place to invest & work
  - Extend & deepen the internal market
  - Improve European and national regulation
  - Ensure open & competitive markets inside & outside Europe
  - Expand & improve European infrastructure
- Knowledge & innovation for growth
  - Increase & improve investment in R&D
  - Facilitate innovation & uptake of ICT & the sustainable use of resources
  - Contribute to a strong European industrial base
- Employment & Skills: Creating more & better jobs
  - Attract more people into employment & modernise social protection systems
  - Improve the adaptability of workers & enterprises & the flexibility of labour markets
  - Invest more in human capital through better education & skills



EU: Largest  
knowledge-based  
economy by 2010 ?

# DG Information Society and Media: Contributing to the Lisbon process

## Innovation through ICT:

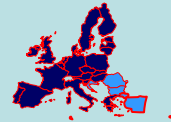


Information Space  
Innovation & Investment in R&D  
Inclusion

- Single European information area
- Investment in ICT
- Inclusion, better public services, quality of life

## 7<sup>th</sup> R&D Framework Programme:

- Collaborative R&D
- Investigator-driven research
- Technology Platforms
- Mobility



EU: Largest  
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## Education & Training:

- Lifelong learning
- Modernising universities
- Bologna process
- Entrepreneurship

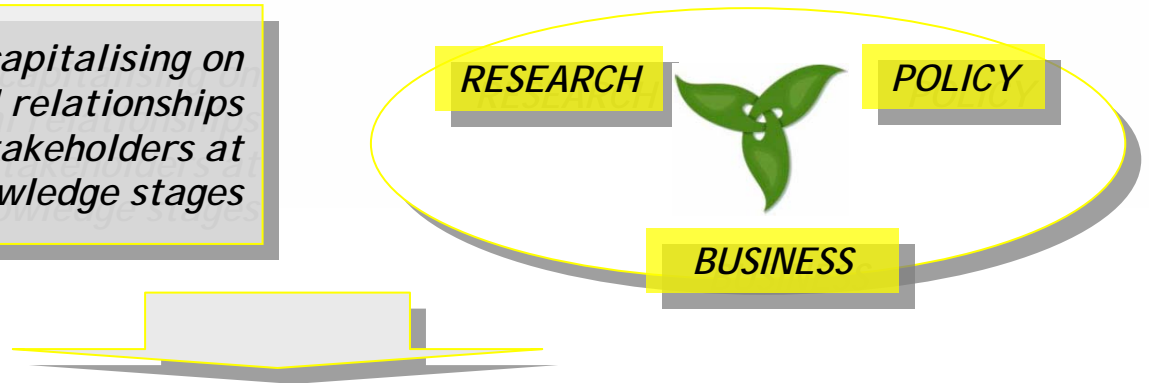
# European Strategy for RTD and Innovation

## The implementation mechanisms

- European Research Area
  - *“Internal market in research, restructure of research fabric, research policy”*
- Framework Programme - IP, NoE, STREP, JTI, .....
  - *“Master and shape RTD in ICT and related applications”*
- Technology Platforms as a gateway to Strategic Research Agendas and Joint European Technology Initiatives
  - *“Industry led Forum involving main public and private stakeholders (industry, research, finance, public bodies) to address technological and related challenges”*
- CIP: Competivity and Innovation Programme
  - *“ICT policy support programme to ensure uptake and best use”*
- National Programs, Regional Policies,
- EUREKA

# European Technology Platforms

*A spiral model of innovation capitalising on the multiple reciprocal relationships between public & private stakeholders at various knowledge stages*



31 European Technology Platforms launched so far:

- Addressing major technological challenges in specific domains
- Aiming to leverage public & private investment for R&D & innovation
- Involving key R&D stakeholders
  - eg industry, the research community & public authorities
- Bundling fragmented R&D efforts towards agreed goals
  - Vision 2020 document & Strategic Research Agenda

[cordis.europa.eu/technology-platforms](http://cordis.europa.eu/technology-platforms)

# Technology Platform of Systems Integration: EPoSS

- **A multi-disciplinary endeavour:**  
Combining optics, mechanics, electronics, fluidics, thermodynamics, chemistry, biology
- **Converging scientific disciplines:**  
Looking at the overlapping areas between nano-, bio-, information & cognitive sciences
- **Multi-material integration:**  
Semiconductors, polymers (plastics), ceramics, glass, ...
- **Multi-technology integration:**  
Monolithic, hybrid, multichip, large-area, ... miniaturisation techniques
- **Multi-functional integration:**  
Combining sensing, processing, actuating



[smart-systems-integration.org](http://smart-systems-integration.org)

# Other ICT Technology Platforms



[eniac.eu](http://eniac.eu)

addressing the needs of silicon-based technologies & beyond



[artemis-office.org](http://artemis-office.org)

ubiquitous, interoperable & cost-effective embedded systems



[www.photonics21.de](http://www.photonics21.de)

To explore the almost limitless applications of light for ICT, lighting, manufacturing and health applications

EUROP

[www.roboticsplatform.com](http://www.roboticsplatform.com)

To boost the development of robotics business & bring robotics services to Europe's citizens



[www.nessi-europe.com](http://www.nessi-europe.com)

New software & services architecture based on open standards



[www.emobility.eu.org](http://www.emobility.eu.org)

To reinforce Europe's world leadership in mobile & wireless communications & services



[www.nem-initiative.org](http://www.nem-initiative.org)

Convergence of existing and new media technologies creating advanced personalised services

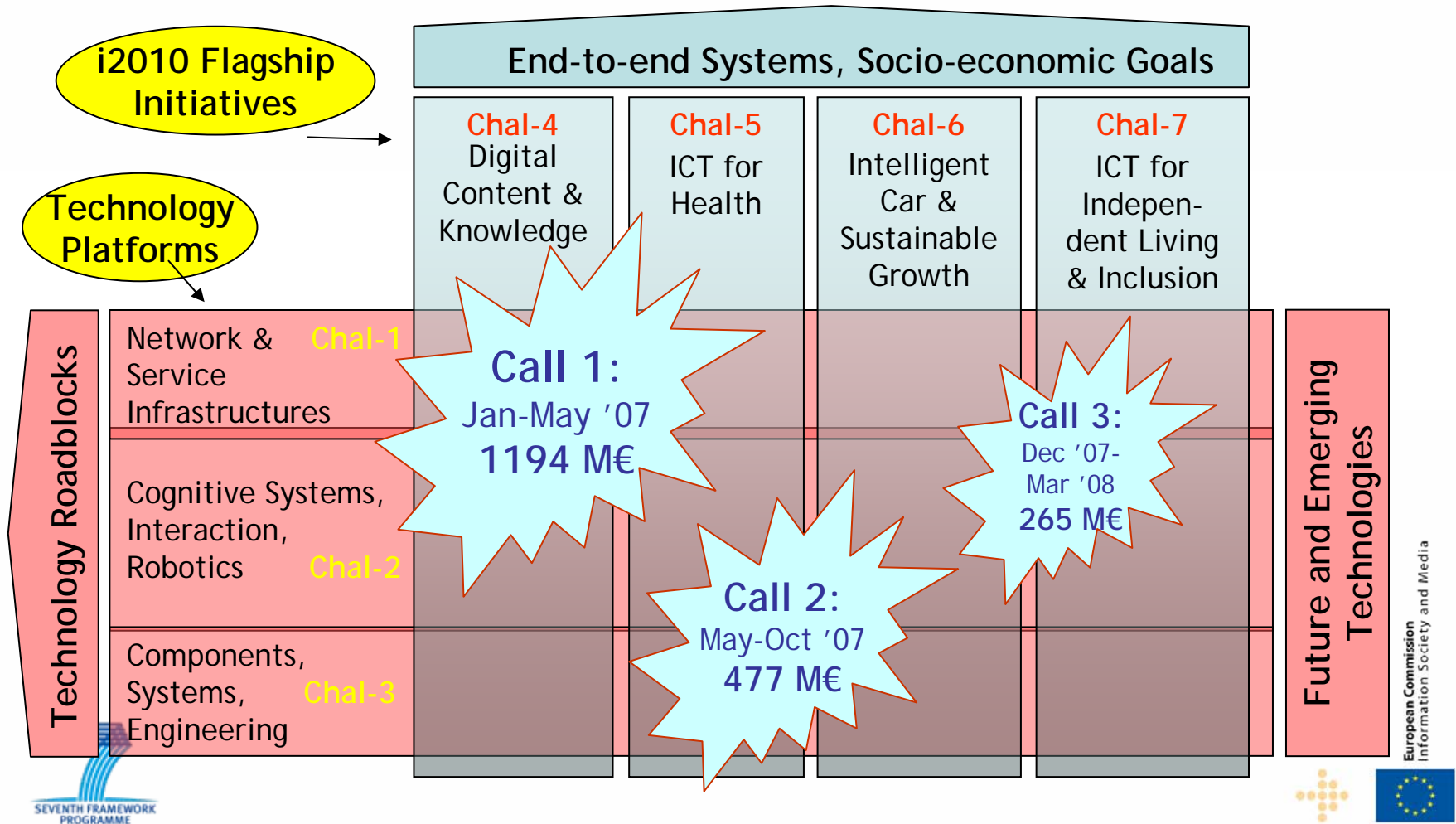


[www.isi-initiative.eu.org](http://www.isi-initiative.eu.org)

An integral Satcom initiative covering all aspects of satellite communications

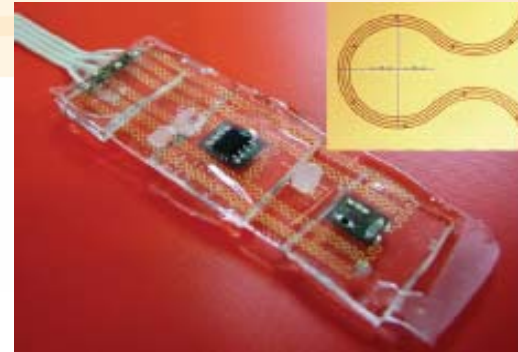


# ICT Work Programme 2007-08



## IST-2007.3.6: Micro/Nanosystems

- Next generation smart systems  
*Sensor- & actuator-based systems*  
*High density mass storage*
- Micro/Nano-Bio-ICT convergence  
*Biosensors, lab-on-a-chip, bioMEMS,*  
*autonomous implants*
- Integration of smart materials  
*Integration of micro-nano technologies and smart systems into new &*  
*traditional materials, e.g. textiles, glass, paper*
- From smart systems to viable products  
*Microsystems manufacturing technologies*
- Smart systems for communications & data management  
*Smart micro/nanosystems enabling wireless access & facilitating*  
*intelligent networking*
- Support actions  
*Technology access, education & training, coordination &*  
*dissemination at EU level*



Courtesy STELLA

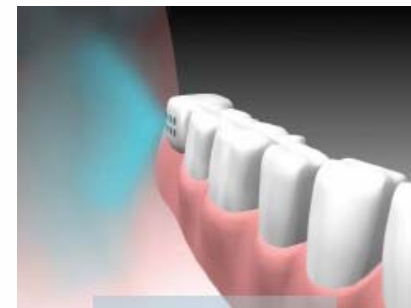
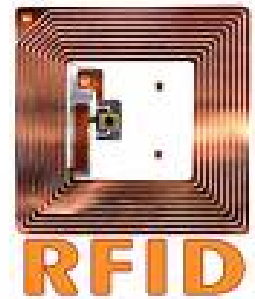


Image courtesy of project Intellidrug  
Courtesy INTELLIDRUG

**Call 2 83 M€(\*)**

**75 M€ CP (min 20 M€ IPs and 32 M€ STREPs)**

**4 M€ NoE**

**4 M€ CSA**

(\*) Total amounts to be confirmed after a new financing decision for the 2008 budget

# Directorate G: Components and Systems

*Research, innovation and other policies for a competitive EU industry in electronic components and systems (nanoelectronics, micro and nanosystems, embedded systems, photonics) and for ICTs applied to transport and manufacturing*



[www.photonics21.de](http://www.photonics21.de)



[www.artemis-office.org](http://www.artemis-office.org)

[www.smart-systems-integration.org](http://www.smart-systems-integration.org)



[www.eniac.eu](http://www.eniac.eu)



[europa.eu.int/information\\_society/activities/esafety/](http://europa.eu.int/information_society/activities/esafety/)

- About 300 active projects
- Commission contribution around 900 M€
- More than 500 M€ in 2007 calls



[cordis.europa.eu/ims](http://cordis.europa.eu/ims)



# *Thank you! ...*

- European research on the web:
  - <http://cordis.europa.eu>
  - <http://cordis.europa.eu/fp7>
  - <http://ec.europa.eu/comm/research/future/>
- Information Society and Media:
  - [http://ec.europa.eu/information\\_society/](http://ec.europa.eu/information_society/)
  - <http://cordis.europa.eu/ist>
- Contact:
  - [Rosalie.zobel@ec.europa.eu](mailto:Rosalie.zobel@ec.europa.eu)