

**Alma Mater Studiorum  
Università di Bologna**



# **Opportunità di finanziamento nel programma COOPERATION**

Michela Cozzi

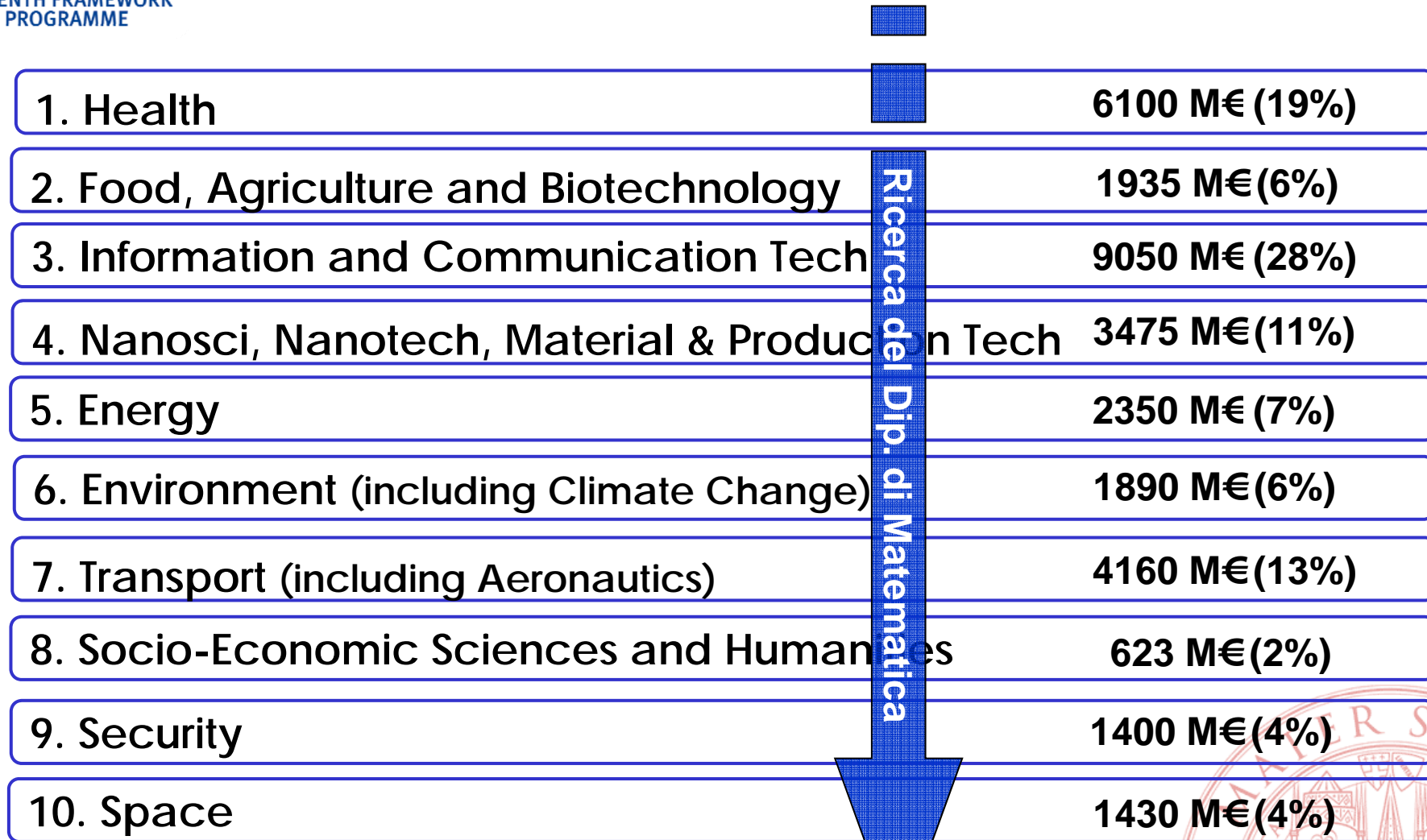
EU research development team  
Research Department - European Office



# Cooperation in FP7

- ✓ Il 7°PQ destina **32.413 milioni di EUR** al programma Cooperation
- ✓ Il programma sostiene tutti i tipi di attività di ricerca svolti da vari organismi di ricerca in **cooperazione transnazionale**
- ✓ Il programma è diviso in **10 aree tematiche** indipendenti (con una serie di attività congiunte trasversali tra temi diversi)
- ✓ **Policy oriented:** I dieci temi individuati riguardano i campi più importanti della conoscenza e della tecnologia in cui l'eccellenza della ricerca è particolarmente importante per **migliorare la capacità dell'Europa di affrontare le sfide sociali, economiche, di salute pubblica, ambientali e industriali del futuro.**

# Cooperation - aree tematiche



7PQ: 2007-2013

# Cooperation – work programmes

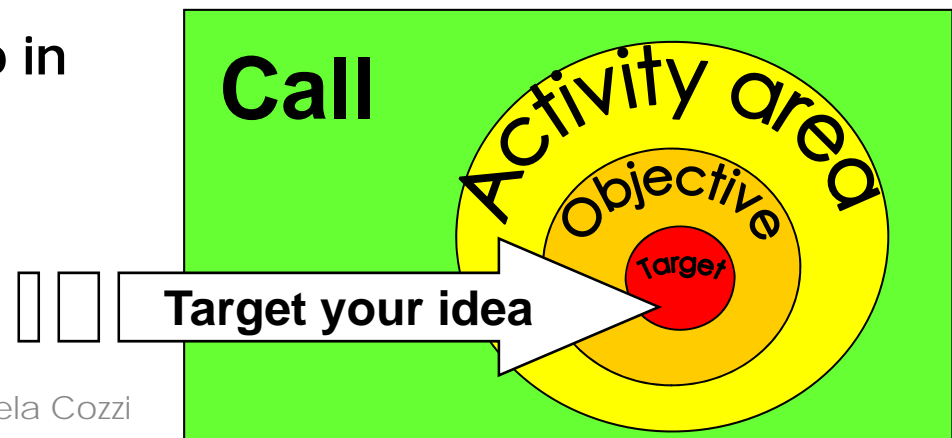
Per ogni area tematica la Commissione definisce un Work Programme annuale in cui vengono definite:

- le priorità per le Calls
- i topic (o objectives) per ciascuna macro-area di ricerca
- i risultati attesi e gli impatti previsti in ciascun topic
- lo strumento di finanziamento
- le procedure di valutazione del progetto (uno step/due step)
- possibile stima del budget e composizione del consorzio

Le “activity areas” si ripresentano in ogni work programme

Objectives e/o target cambiano

**Approccio TOP-DOWN:**





# Golden Time

A fine luglio si aprono tutte le calls di Cooperation  
(i draft dei singoli work programme sono disponibili)



# Health - Activity Areas

1. Biotecnologie, strumenti e tecnologie generiche per la salute umana
2. Trasferire la ricerca per la salute umana
3. Ottimizzare la prestazione delle cure sanitarie per i cittadini Europei

1. Health
2. KBBE
3. ICT
4. NMP
5. Energy
6. Environment
7. Transport
8. SSH
9. Space
10. Security

**Riferimenti:** [http://cordis.europa.eu/fp7/health/home\\_en.html](http://cordis.europa.eu/fp7/health/home_en.html)

**Work-programme Health 2010:** July 2009

(draft is available at the EU office)

**application deadline: 29 Oct 2009 (2 stage submission)**

**19 Nov 2009 (single stage)**

**Info day nazionale: 3 Luglio 2009**

**Referente ARIC: Dott.ssa Antonella Munna**



# Health – a zoom to a topic

**Activity 2:** TRANSLATING RESEARCH FOR HUMAN HEALTH

**Area 2.1.** INTEGRATING BIOLOGICAL DATA AND PROCESSES:  
LARGE-SCALE DATA GATHERING, SYSTEMS BIOLOGY

2.1.2 Systems biology

**Topic:** HEALTH.2010.2.1.2-3:

**Developing new and improving existing mathematical algorithms for systems biology.**

**Call ID:** FP7-HEALTH-2010-single-stage

The research should focus on the design of algorithms for modelling complex biological systems. These algorithms should be of general applicability for the field of systems biology and should be thoroughly tested using suitable health-related models.

**Funding scheme:** Specific International Cooperation Action (**SICA**) Collaborative Project (Small or medium-scaled focused research projects) with focus on Eastern Europe/Central Asia (EECA)



# Food, Agriculture and Biotechnology - Activity Areas

1.  
Produzione sostenibile e gestione delle risorse biologiche della terra, della foresta e dell'ambiente Acquatico

2.  
Fork to farm: Prodotti alimentari salute e benessere

3.  
Scienze della vita, biotecnologia e biochimica per prodotti e processi non-alimentari Sostenibili

...Build a Knowledge Based Bio-Economy...

## Riferimenti:

[http://cordis.europa.eu/fp7/kbbe/home\\_en.html](http://cordis.europa.eu/fp7/kbbe/home_en.html)

Work-programme publication: 30/07/2009

application deadline: 14/01/2010

Referente ARIC: Dott.ssa Alessia Di Sandro

1. Health
2. <b>KBBE</b>
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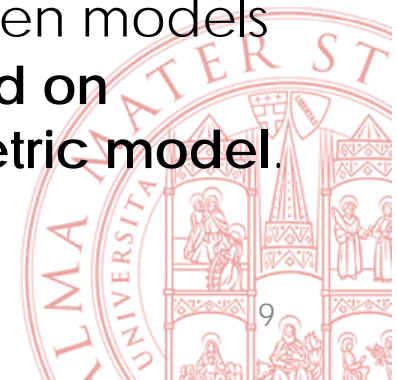
# KBBE – a zoom to a topic

**Activity 1:** Sustainable production and management of biological resources from land, forest and aquatic environments

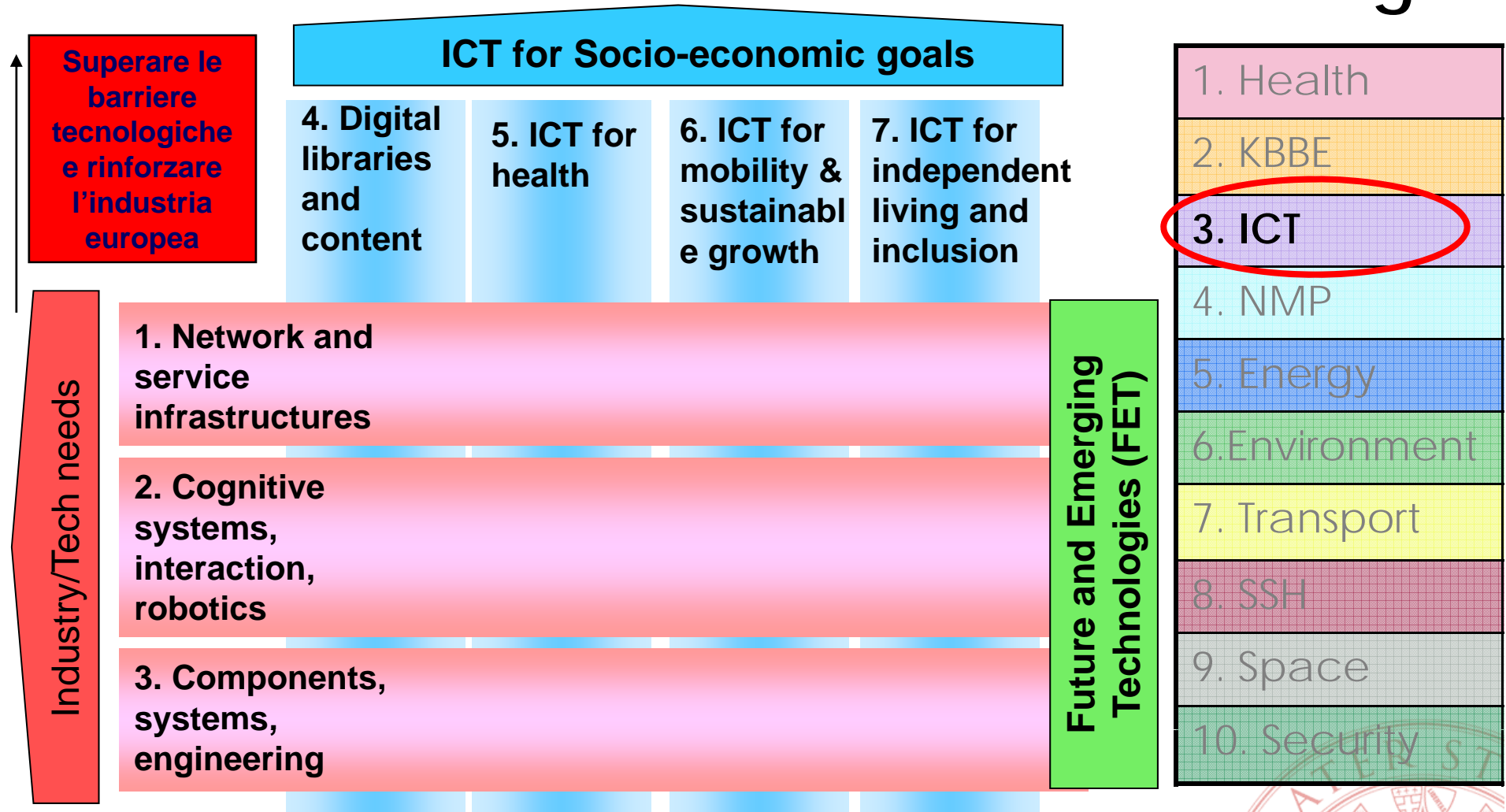
**Topic:** KBBE.2010.1.4-02: **Development of modelling tools based on Farm Accountancy Data Network data adapted to assess the dynamic impacts of the Common Agricultural Policy**

**Call identifier:** FP7-KBBE-2010-4

This project aims to pool EU expertise for the definition and development of an **economic model** for estimating the impact of the change of agricultural policy and market developments on land use, production and agricultural income, which should also take into account changes of the structure of farms in the sector (number of farms). The data base for the model is the Farm Accountancy Data Network (FADN). The chosen models could be meaningful to include both a **model based on mathematical programming as well as an econometric model.**



# ICT - Challenges



**Riferimenti:** <http://cordis.europa.eu/fp7/ict/>  
 Referente ARIC: Dott.ssa Silvia Vecchi





# ICT - Future & Emerging Technologies

[http://cordis.europa.eu/fp7/ict/programme/fet\\_en.html](http://cordis.europa.eu/fp7/ict/programme/fet_en.html)

Ricerca di frontiera "high risk": si esplorano nuove idee e temi di ricerca di frontiera nel settore ICT

due schemi complementari  
FET Proactive + FET Open

Call continuously receivable  
until 31 Dec 2010

## FET Proactive

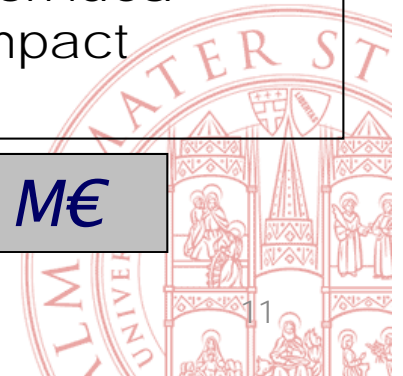
- Top-down approach
- Set of novel pre-defined themes
- Pathfinder for related communities & themes

*Budget 110 M€*

## FET Open

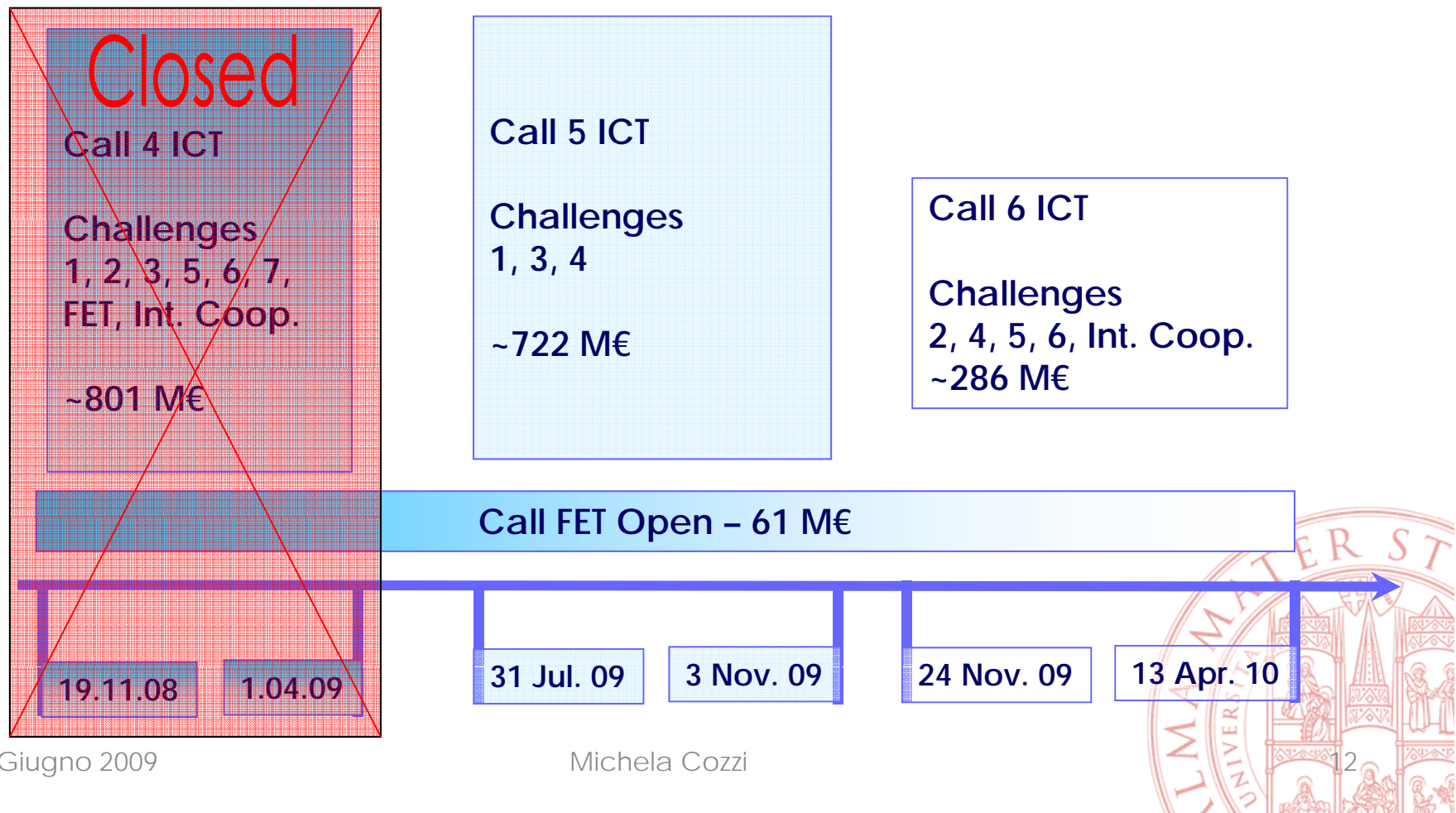
- **Bottom-up approach**
- Open to any research idea
- high-risk and high-impact visionary research

*Budget 61 M€*



# ICT – calls roadmap

I topics del WP 2009-2010 sono banditi in 3 differenti call con le seguenti tempistiche:



Challenge	Objectives	Funding schemes	Budget (M€)
<b>Challenge 1: Pervasive and Trusted Network and Service Infrastructures</b>	ICT-2009.1.1 – The network of the future	CP, NoE, CSA	80
	ICT-2009.1.2 – Internet of Services & virtualization	CP, CSA	110
	ICT-2009.1.3 – Internet of Things and enterprise environments	CP, CSA	37
	ICT-2009.1.4 - Trustworthy ICT	CP, NoE, CSA	90
	ICT-2009.1.6 – Future Internet Experimental Facility and Experimentally-driven Research	CP, CSA	50
<b>Challenge 3: Components, systems, engineering</b>	ICT-2009.3.1 – Nanoelectronics Technology	CP, NoE, CSA	35
	ICT-2009.3.5 - Engineering of Networked Monitoring and Control Systems	CP, NoE, CSA	32
	ICT-2009.3.7 - Photonics	CP, CSA	50
	ICT-2009.3.9 – Microsystems and Smart Miniaturized Systems	CP, CSA	80

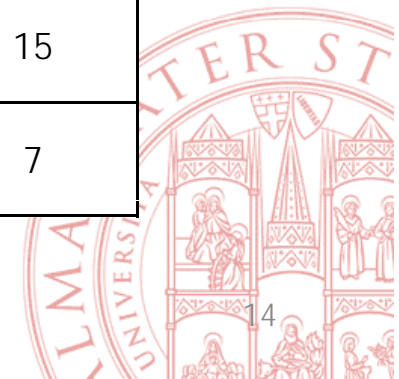
# ICT – call 5

## ICT for Socio-economic goals

Challenge	Objectives	Funding schemes	Budget (M€)
Challenge 4: Digital Libraries and Content	ICT-2009.4.2 – Technology-Enhanced Learning	CP, NoE, CSA	49
	ICT-2009.4.3 – Intelligent information management	CP, NoE, CSA	70

## FET - Proactive

Objectives	Funding schemes	Budget (M€)
ICT-2009.8.4 – Human-Computer Confluence	CP (IP only)	15
ICT 2009.8.5 – Self-Awareness in Autonomic Systems	CP	15
ICT 2009.8.6 – Towards Zero-Power ICT	CP (Strep only)	7



# ICT – call 6

## Industry/Tech needs

Challenge	Objectives	Funding schemes	Budget (M€)
Challenge 2: Cognitive systems, interaction, robotics	ICT-2009.2.1 – Cognitive Systems and Robotics	CP, CSA (CA only)	80

## ICT for Socio-economic goals

Challenge	Objectives	Funding schemes	Budget (M€)
Challenge 4: Digital Libraries and Content	ICT-2009.4.1 – Digital Libraries and Digital Preservation	CP, NoE, CSA	69
Challenge 5: Towards sustainable and personalised healthcare	ICT-2009.5.3 – Virtual Physiological Human	CP, CSA	63
Challenge 6: ICT for mobility, environmental sustainability and energy efficiency	ICT-2009.6.2 – ICT for Mobility of the Future	CP, CSA	37



# ICT – call 6

## FET - Proactive

Objectives	Funding schemes	Budget (M€)
ICT-2009.8.7 – Molecular Scale Device and Systems	CP	15
ICT 2009.8.8 – Brain-inspired ICT	CP	15



# NMP – Activity Areas

1. Nanoscienze e Nanotecnologie

2. Materiali

3. Nuove produzioni

4. Integrazione di tecnologie per applicazioni industriali

1. Health

2. KBBE

3. ICT

4. NMP

5. Energy

6. Environment

7. Transport

8. SSH

9. Space

10. Security

## Riferimenti:

[http://cordis.europa.eu/fp7/cooperation/nanotechnology\\_en.html](http://cordis.europa.eu/fp7/cooperation/nanotechnology_en.html)

Work-programme publication: July 2009

Application deadline: 8/12/2009

Referente ARIC: Dott.ssa Antonella Munna

22 Giugno 2009

Michela Cozzi



# Energy - Activity Areas

1. Idrogeno e celle a combustibile

2. Produzione di energia elettrica da fonti rinnovabili

3. Produzione di combustibile rinnovabile

4. Fonti di energia rinnovabile per il riscaldamento e la refrigerazione

5. Tecnologie di cattura e immagazzinamento di CO2 per la generazione di elettricità ad emissioni zero

9. Conoscenze per l'elaborazione della politica energetica

6. Tecnologie pulite del carbone

7. Reti di energia intelligenti

8. Efficienza e risparmi energetici

no topics are open in calls published

1. Health

2. FAB

3. ICT

4. NMP

5. Energy

6. Environment

7. Transport

8. SSH

9. Space

10. Security

**Riferimenti:** [http://cordis.europa.eu/fp7/energy/home\\_en.html](http://cordis.europa.eu/fp7/energy/home_en.html)

**Application deadline: 15 Oct 2009**

**Referente ARIC: Dott.ssa Alessia Di Sandro**



# Environment- Activity Areas

1. Cambiamento climatico,  
inquinamento e rischi

2. Gestione sostenibile delle risorse

3. Tecnologie Ambientali

4. Osservazione della Terra  
e strumenti di valutazione

## Riferimenti:

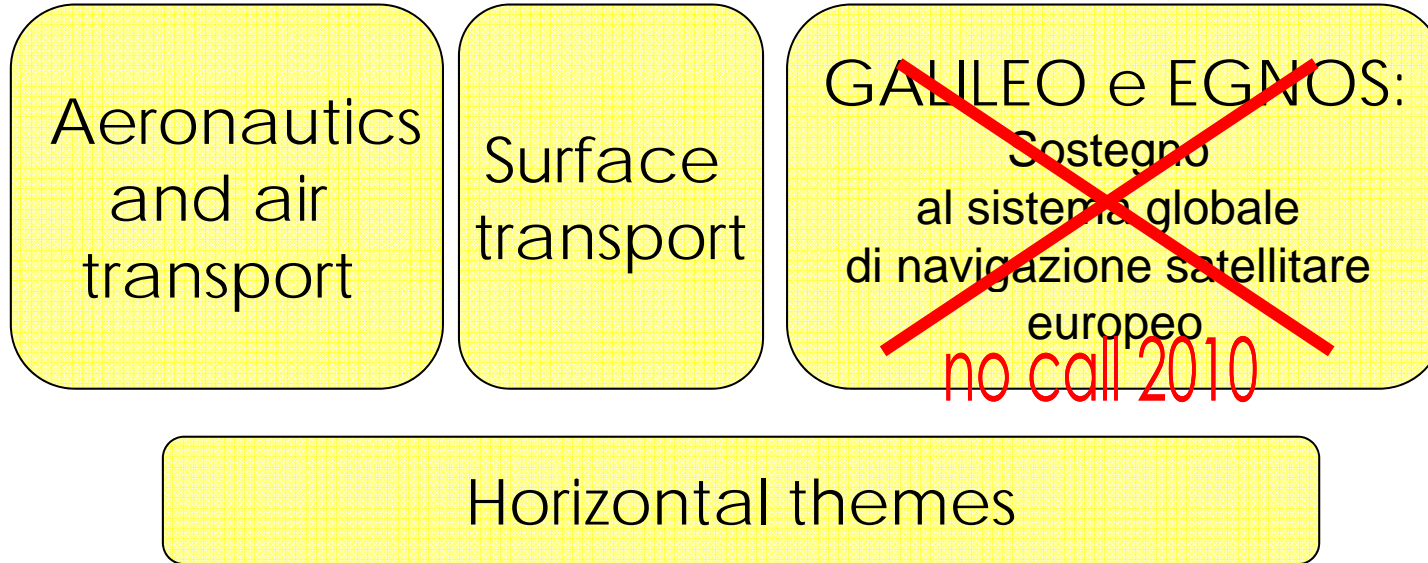
[http://cordis.europa.eu/fp7/environment/home\\_en.html](http://cordis.europa.eu/fp7/environment/home_en.html)

Referente ARIC: Dott.ssa Alessia Di Sandro

1. Health
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9. Space
10. Security



# Transport - Activity Areas



1. Health
2. FAB
3. ICT
4. NMP
5. Energy
6. Environment
<b>7. Transport</b>
8. SSH
9. Space
10. Security

## Riferimenti transport:

[http://cordis.europa.eu/fp7/cooperation/transport\\_en.html](http://cordis.europa.eu/fp7/cooperation/transport_en.html)

Dead line 14 Gen 2010

Information Day: 20/07/2009 Bologna

Referente ARIC: Dott.ssa Silvia Vecchi



# Transport – a zoom to a topic

Sustainable surface transport

**Activity 7.2.1** The greening of surface transport

**Area 7.2.1.3** Socio-economic issues

**Topic: SST.2010.1.3.2: Social and economic impacts of transport policy**

Funding scheme: CSA

**Call identifier:** FP7-TRANSPORT-2010-TREN-1

**Expected impact:**

Comprehensive analytical framework and identification of options for actions; Knowledge-based decision support tools providing a sound basis for future transport greening related legislation as well as non-legislative measures



# SSH - Activity Areas

1. Crescita, impiego e competitività in una società della conoscenza

2. Combinare gli obiettivi economici, sociali ed ambientali in una prospettiva europea

3. I principali orientamenti nella società e relative implicazioni

4. L'Europa nel mondo

5. Il cittadino nell'Unione Europea

6. Indicatori scientifici e socio-economici

7. Attività di previsione (no topic)

8. Attività strategiche

1. Health

2. FAB

3. ICT

4. NMP

5. Energy

6. Environment

7. Transport

8. SSH

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## Riferimenti SSH:

[http://cordis.europa.eu/fp7/cooperation/transport\\_en.html](http://cordis.europa.eu/fp7/cooperation/transport_en.html)

Referente ARIC: Alessia Franchini



# SSH – a zoom to a topic

**Activity 8.1: Growth, employment and competitiveness in a knowledge society – the European case (Budget EUR 5.4 million)**

**Area 8.1.1.** Changing role of knowledge throughout the economy

**SSH-2010-1.1.1 Demand-driven research and innovation policies for growth, welfare and wellbeing**

Funding scheme: CP small or medium size

**Area 8.1.2.** Structural changes in the European knowledge economy and society

**SSH-2010-1.2.1. Changing the role of the financial system to better serve economic, social and environmental objectives**

Funding scheme: CP large

**Call identifier:** FP7-SSH-2010-B

**Deadline:** January 2010



# Space - activities

1. Space-based applications at the service of the European Society  
→ *Pre-operational validation of GMES services and products*
2. Strengthening of Space foundations/ Research to support space science and exploration  
→ *Research to support space science and exploration*  
→ *Research to support space transportation and key technologies*  
→ *Research into reducing the vulnerability of space assets*
3. Cross-cutting activities

## Riferimenti:

[http://cordis.europa.eu/fp7/cooperation/space\\_en.html](http://cordis.europa.eu/fp7/cooperation/space_en.html)

Deadline: 12/11/2009

Referente ARIC: Dott.ssa Silvia Vecchi

22 Giugno 2009

Michela Cozzi

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# Security - Mission orientated R&D

1. Sicurezza dei cittadini
2. Sicurezza delle infrastrutture e dei servizi pubblici
3. Sorveglianza intelligente e sicurezza dei confini
4. Restaurare la sicurezza in caso di crisi

5. Interoperabilità, interconnettività e integrazione dei sistemi di sicurezza

6. Sicurezza e società

7. Coordinamento e organizzazione della ricerca nel settore della sicurezza

1. Health
2. KBBE
3. ICT
4. NMP
5. Energy
6. Environment
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10. Security

## Riferimenti:

[http://cordis.europa.eu/fp7/cooperation/security\\_en.html](http://cordis.europa.eu/fp7/cooperation/security_en.html)

Infoday: 6/6/2009 Roma

Deadline: 19 Nov 2009

Referente ARIC: Dott.ssa Silvia Vecchi



# Security – a zoom to a topic

Activity: 10.6 Security and society

Area: 10.6.4 Security economics

Topic SEC-2010.6.4-1 **Cost-benefit analysis of the present and future security measures in Europe**

## **Expected impact:**

*The tool should help policy-makers when they have to make decision on issues which are security related. The costs and the benefits of the different security measures should become more apparent and the decision makers should be better equipped to understand the security consequences of their decisions and thus be in a better position to make the right decisions.*

**Funding scheme:** CP,CSA

**Call identifier:** FP7-SEC-2010-1

**Deadline:** 19 Nov 2009



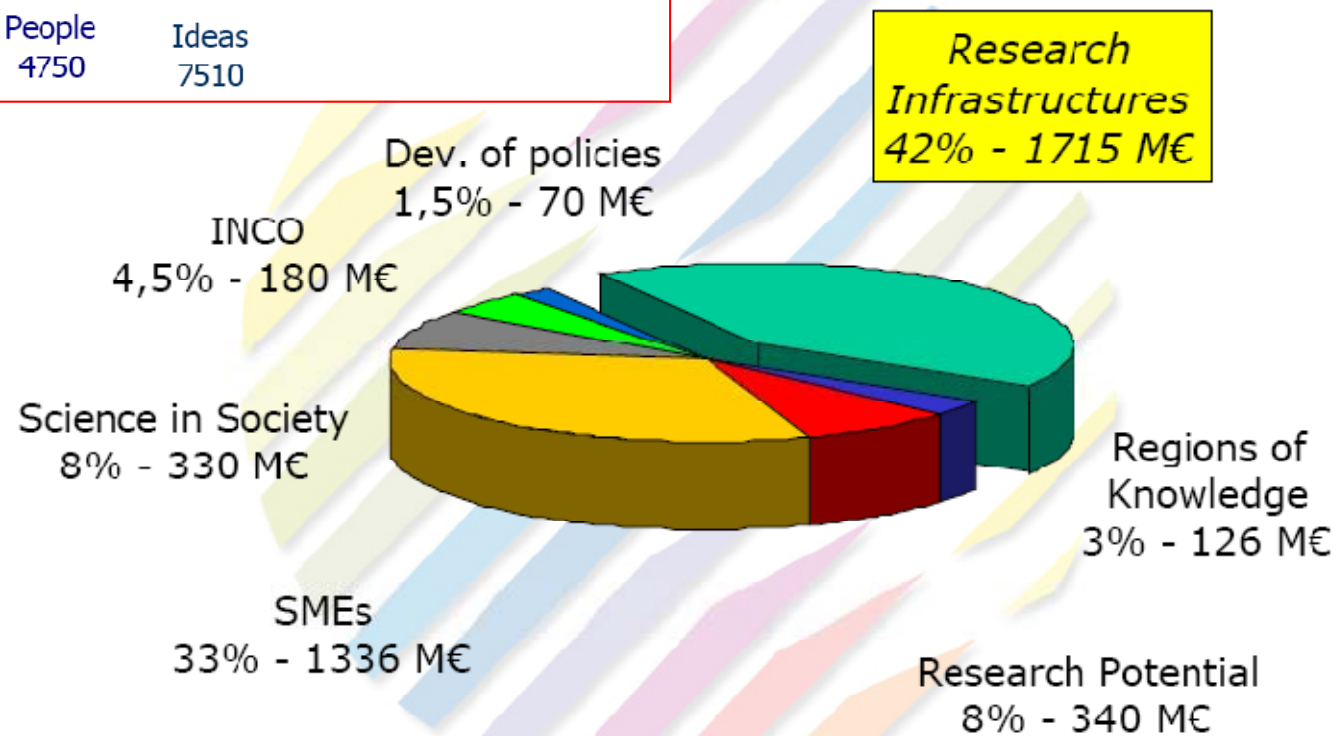
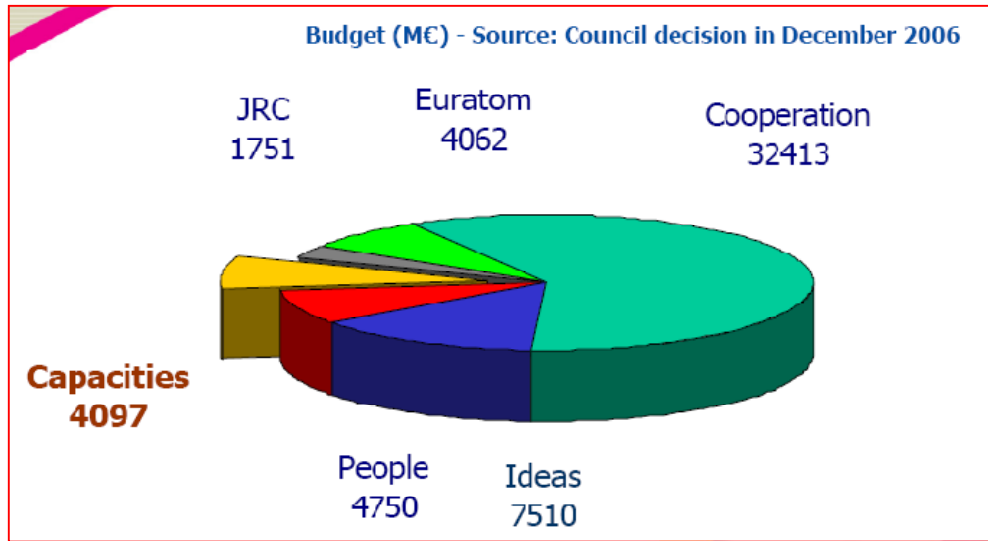
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**Programma CAPACITIES:  
*RESEARCH INFRASTRUCTURES***

**Referente ARIC: Dott.ssa Alessandra Baccigotti**

# Budget – FP7 2007-2013

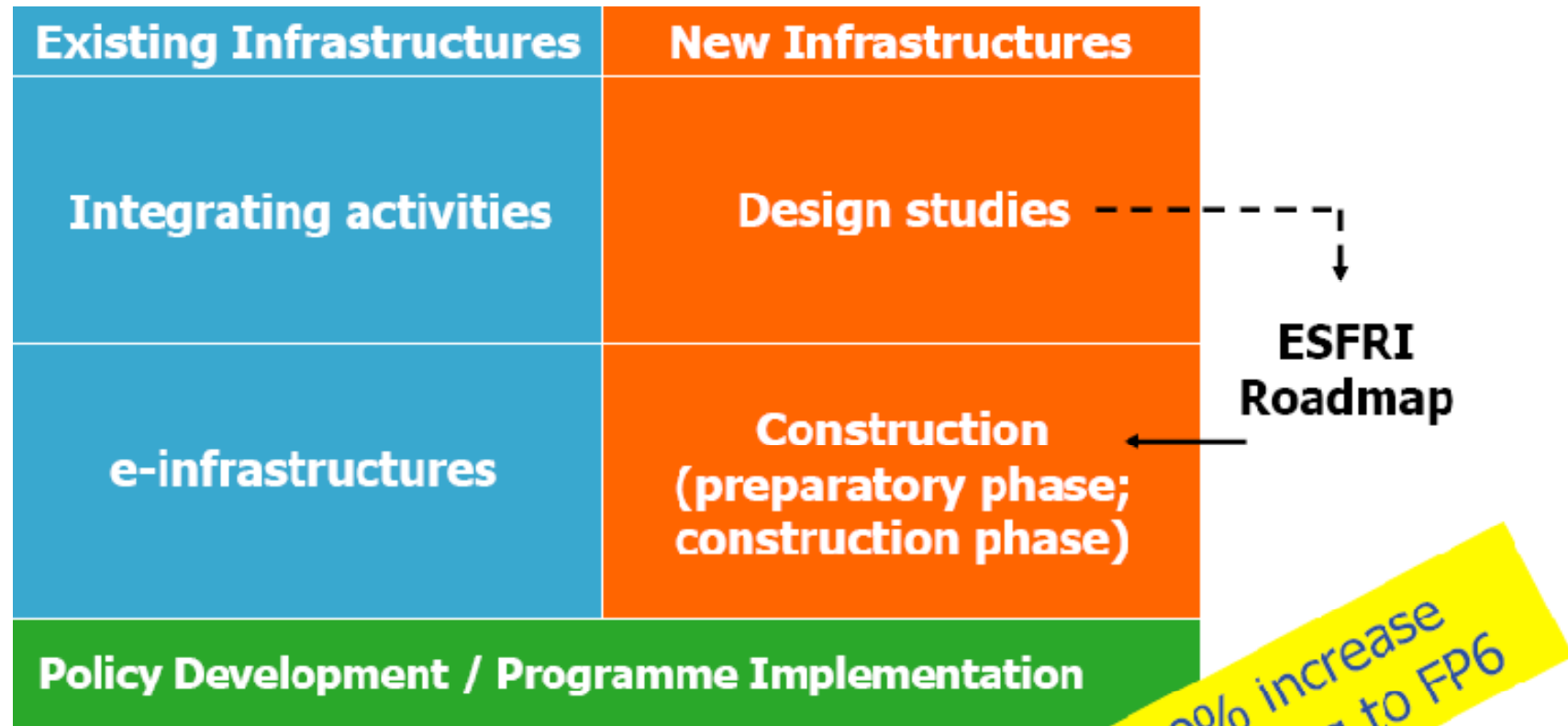


# Research Infrastructures are:

- Facilities, resources, and related services used by the scientific community for
  - Conducting leading-edge research
  - Knowledge transmission, exchange and preservation
  
- Today Research Infrastructures include
  - Major scientific equipment
  - Scientific collections, archives, structured information
  - ICT-based infrastructures
  
- Excellence of research services generally subject to periodic evaluation by international scientific committee



# FP7 Research Infrastructures actions



# ICT Infrastructures for Science

*e-Infrastructures changing Science, Scientists changing e-infrastructures*

## Push and pull

### Scientific Communities

- Geographically spread
- Culture heterogeneity
- Problem Complexity
- Volumes of information
- Quality of information
- Incentives to share
- Organisational barriers

### e-Infrastructures

- Connectivity
- Collaboration
- Processing, Simulation
- Repositories of data
- Curation/Review
- Trust
- Knowledge advantage

[www.cordis.europa.eu/fp7/ict/e-infrastructure/](http://www.cordis.europa.eu/fp7/ict/e-infrastructure/)



# e-Infrastructures



Innovating the scientific process:  
**Global virtual research communities**



Accessing Knowledge:  
**scientific data**



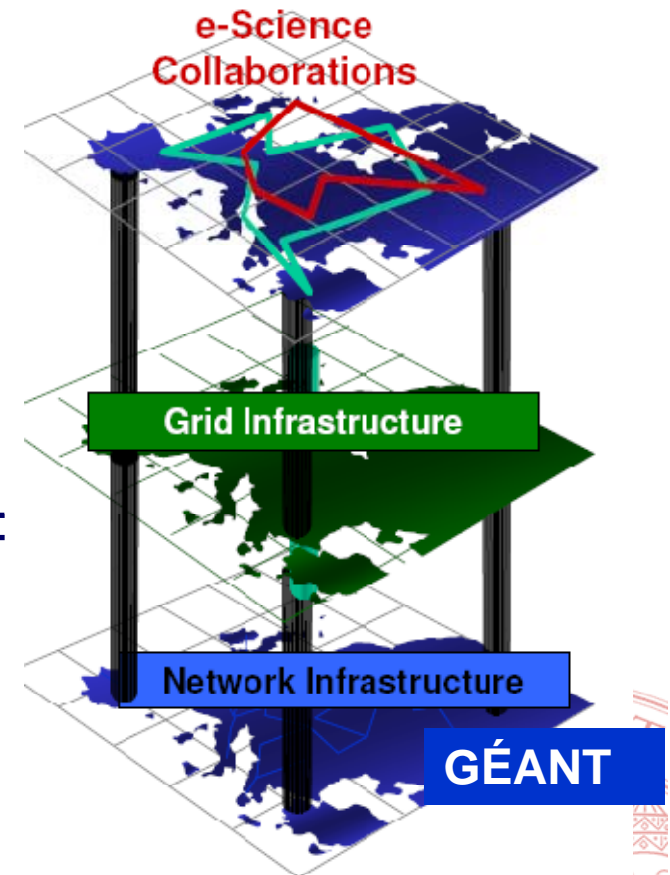
Sharing the best resources:  
**eScience grid**



Linking the ideas at the speed of light:  
**GÉANT**



Designing future facilities:  
**novel e-Infrastructures**



# WP2010 (e-Infrastructures)

DG INFSO call

**Call for proposals: FP7-INFRASTRUCTURES-2010-2**

**Publication: 30/07/2009 / Deadline: 24/11/2009**

<b>1.1 Support to existing research infrastructures</b>	
<b>1.1.2.1 Distributed Computing Infrastructure</b>	<b>50 M€</b>
<b>1.1.2.2 Simulation softwares &amp; services</b>	<b>12 M€</b>
<b>1.1.2.3 Virtual Research Communities</b>	<b>23 M€</b>
<b>1.2 Support to new research infrastructures</b>	
<b>1.2.3 Construction of new infrastructures (PRACE first phase)</b>	<b>20 M€</b>
<b>1.3.3 Support to policy development and programme implementation</b>	<b>10 M€</b>



22 Giugno 2009

Michela Cozzi



# Virtual Research Communities

## Objectives:

- ✓ Deployment of e-Infrastructures in research communities to enable **multidisciplinary collaboration**
- ✓ Deployment of end-to-end e-Infrastructure services and tools for **integrating** and **increasing** research capacities
- ✓ Build user-configured virtual research facilities and test-beds from collection of diverse resources
- ✓ Address human, social and economic factors to facilitate the creation, take up and maintenance of e-Infrastructure services

## Examples of activities:

- ✓ Vertical integration of different services to create virtual laboratories or specific workbenches for simulation in support of specific research communities
- ✓ ...

**Proposals should incorporate users from academia and industry, computational scientists and e-infrastructure providers.**



# WP2010 – Research Infrastructures

DG RTD call

- **Call for proposals: FP7-INFRASTRUCTURES-2010-1**
  - **Publication: 30/07/2009 / Deadline: 3/12/2009**
  - **Indicative budget 217 M€**

<b>1.1 Support to existing research infrastructures</b>	
<b>1.1.1 Integrating Activities</b>	<b>162 M€</b>
<b>1.2 Support to new research infrastructures</b>	
<b>1.2.2 Construction of new infrastructures (or major upgrades) - preparatory phase</b>	<b>45 M€</b>
<b>1.3 Support to policy development and programme implementation</b>	<b>10 M€</b>



# Integrating Activities

**Field:** *Mathematics, Computer-related Sciences, Data*

**Topic:** INFRA-2010-1.1.20: Theoretical Mathematics resources and applied mathematics services.

A project under this topic should aim at **integrating the key theoretical mathematics resources** like advanced study centres, databases, etc., **for mathematicians**, as well as applied mathematic services for other scientific communities, including industry. The latter services constitute the topic of a new European Science Foundation forward-look.

**Schema di finanziamento:**

Integrated Infrastructure Initiative – I3: CP+CSA



# Contatti ARIC - Cooperation

- ✓ **Cooperation ICT, Transport, Security, Space:**
  - Silvia Vecchi, s.vecchi@unibo.it, tel. 20 98855
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- ✓ **Cooperation Health, NMP:**
  - Antonella Munna, antonella.munna@unibo.it, tel. 20 98857
  
- ✓ **Cooperation KBBE, Energy, Environment:**
  - Alessia Di Sandro, alessia.disandro@unibo.it, tel. 20 99777
  - Alessandro Zamboni, a.zamboni@unibo.it, tel. 20 98834
  
- ✓ **Cooperation SSH:**
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# Contatti ARIC - Capacities

## ✓ Capacities:

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# Grazie per l'attenzione

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22 Giugno 2009

Michela Cozzi

