

INFODAY – Research Infrastructures

**Utilizing the full Potential of Research
Infrastructures for Strengthening the ERA**

**Valencia Sept 2009
Purificación Tejedor del Real
European Commission**





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Basics of the development of the European Research Area

The ERA concept combines:

- a European "internal market" for research, where researchers, technology and knowledge freely circulate;
- an effective European-level coordination of national and regional research activities, programmes and policies;
- initiatives implemented and funded jointly.

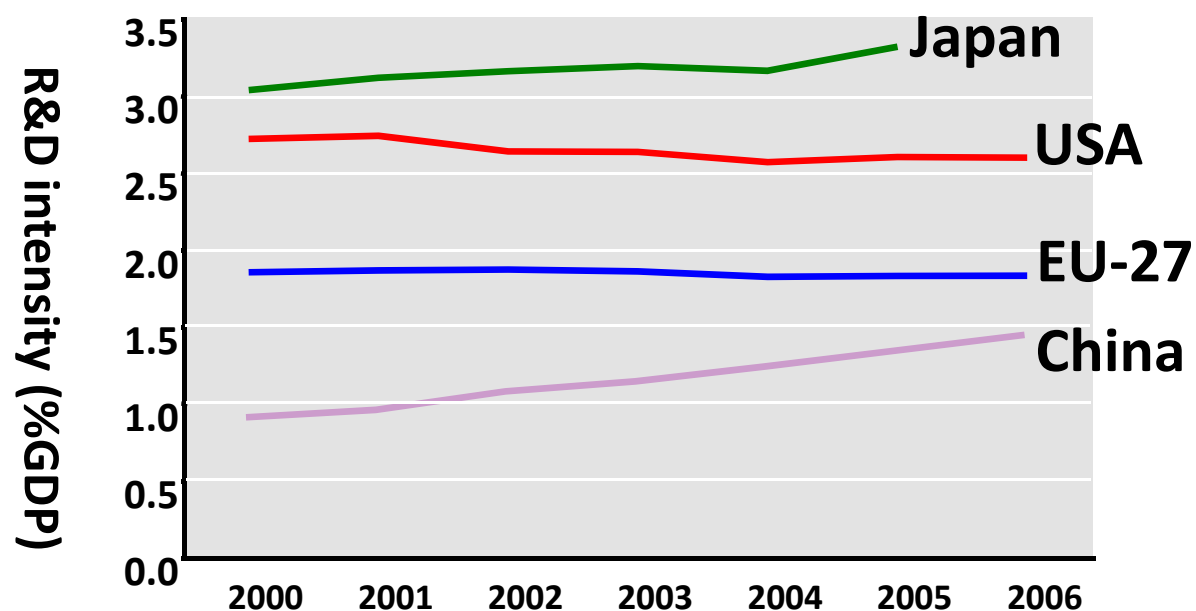


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Our global position

	R&D investment (%GDP)	R&D funded by private sector (%)
EU-27	1.8	55
USA	2.6	64
Japan	3.3	75
China	1.4	65





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The Lund declaration

adopted on 8 July 09

“Meeting the Grand Challenges requires in particular:

- strengthening frontier research,
- taking the lead in devt of enabling technologies,
- Bringing together supply / demand-side measures
- excellence / coordinated knowledge institutions,
- creation and maintenance of world-class research infrastructures,
- a risk-tolerant and trust-based approach in RTD



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World-class research infrastructures

- Essential for Europe's researchers to stay at the forefront of research development
- Key component of Europe's competitiveness in "frontier" research

Key Challenges:

- *Overcoming fragmentation in Europe*
- *Coping with increasing costs / complexity*
- *Improving efficiency of (and access to) research services, incl. e-infrastructures*



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Definition of Research Infrastructures

- **Facilities, resources, and related services** used by the scientific community for
 - ➔ Conducting leading-edge research
 - ➔ Knowledge transmission, knowledge exchange and knowledge preservation
- **They include**
 - ➔ Major scientific equipment
 - ➔ Scientific collections, archives and structured information
 - ➔ ICT-based infrastructures “e-Infrastructures”
 - ➔ Entities of a unique nature, used for research



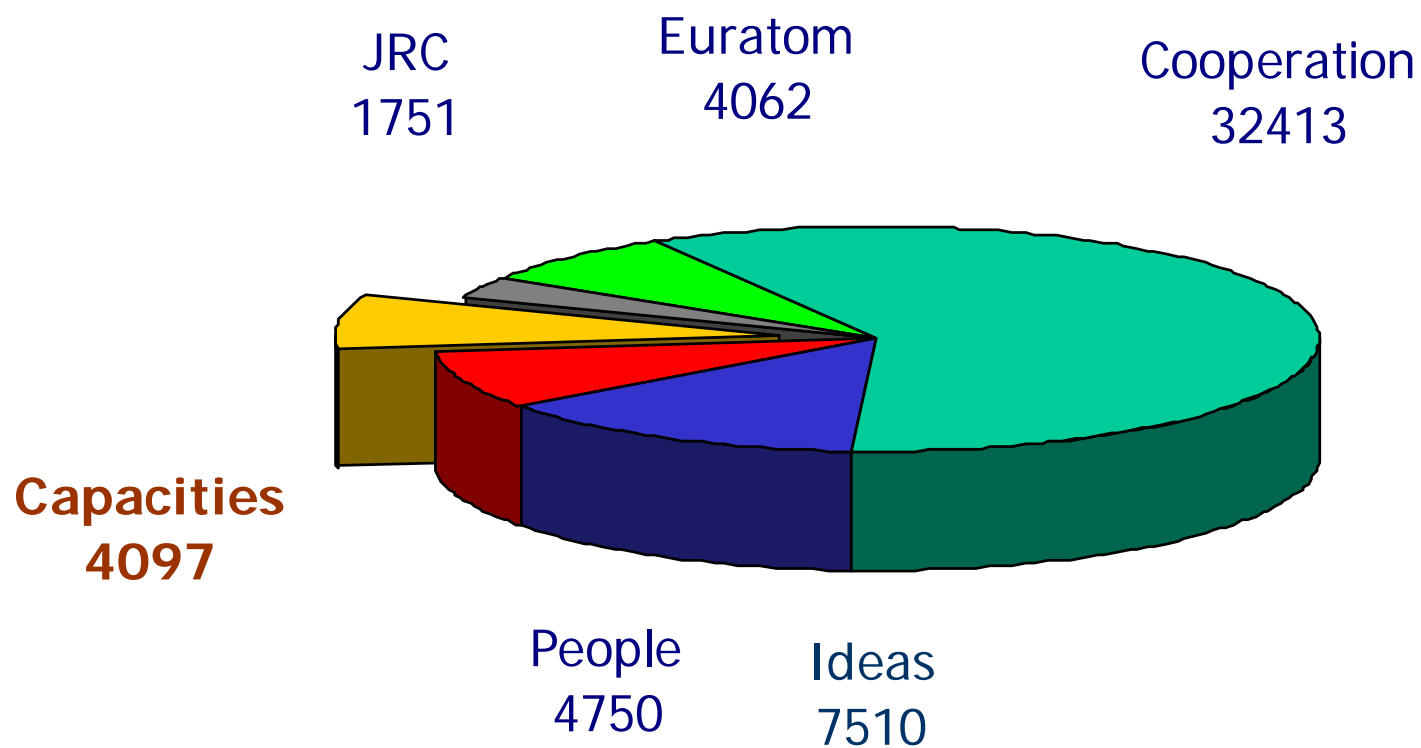


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FP7 2007 - 2013

Budget (M€) - Source: Council decision in December 2006

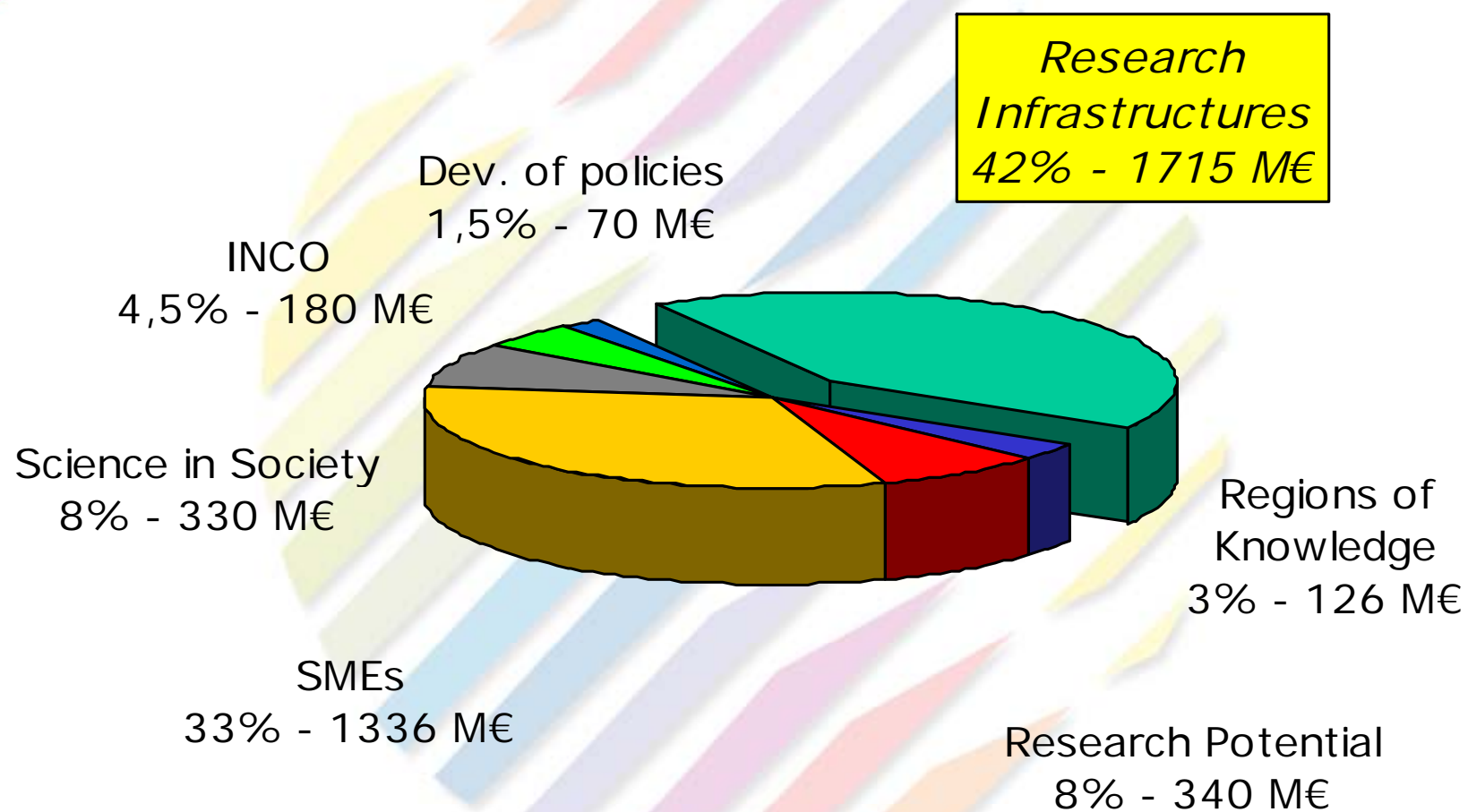




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"Capacities"





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Today, scientific competition is at world level

- Is Europe able to face the challenge?
- Are member States willing to think European?

**RI policy at EU level has no other choice
than continuing reinforcing coordination**

- At EU level,
- At national and regional,
- At “variable geometry”,
- At global level...

*This explains the important
role of ESFRI and others...*



Towards a coherent policy for Research Infrastructures: ESFRI

- A European Strategy Forum on Research Infrastructures (launched in April 2002)
- Brings together representatives of the 27 Member States, Associated States, and one representative of the European Commission (EC)
- To discuss the long term vision at European level and to support the development of a European RI policy
 - ➔ A Roadmap Report with 44 projects
 - ➔ Worth ~20 B€ investments over the next ~10 years



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Towards an 'eco-system' of Research Infrastructures within ERA

- a) Large single-sited facilities
- b) Distributed European Facilities
- c) Network of national facilities

Based on

- a) a consistent roadmap
from the European stakeholders
- b) Links with universities & schools
- c) Network of industrial suppliers / users



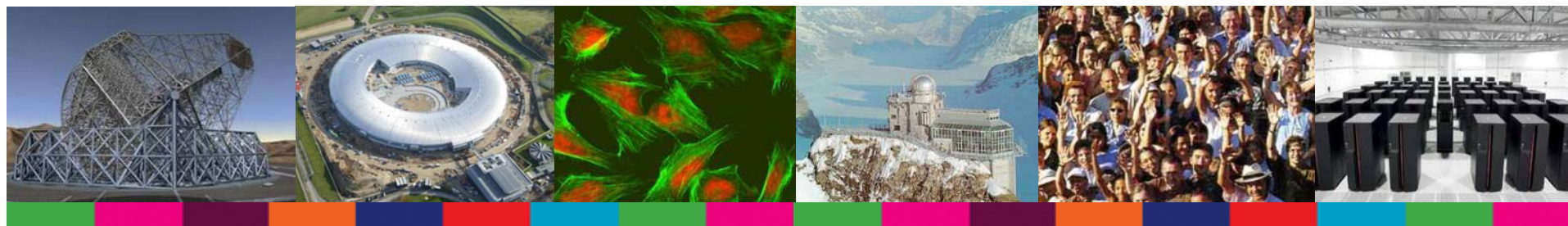


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FP7 Research Infrastructures Call for proposals (number 6)

FP7-INFRASTRUCTURES-2010-1

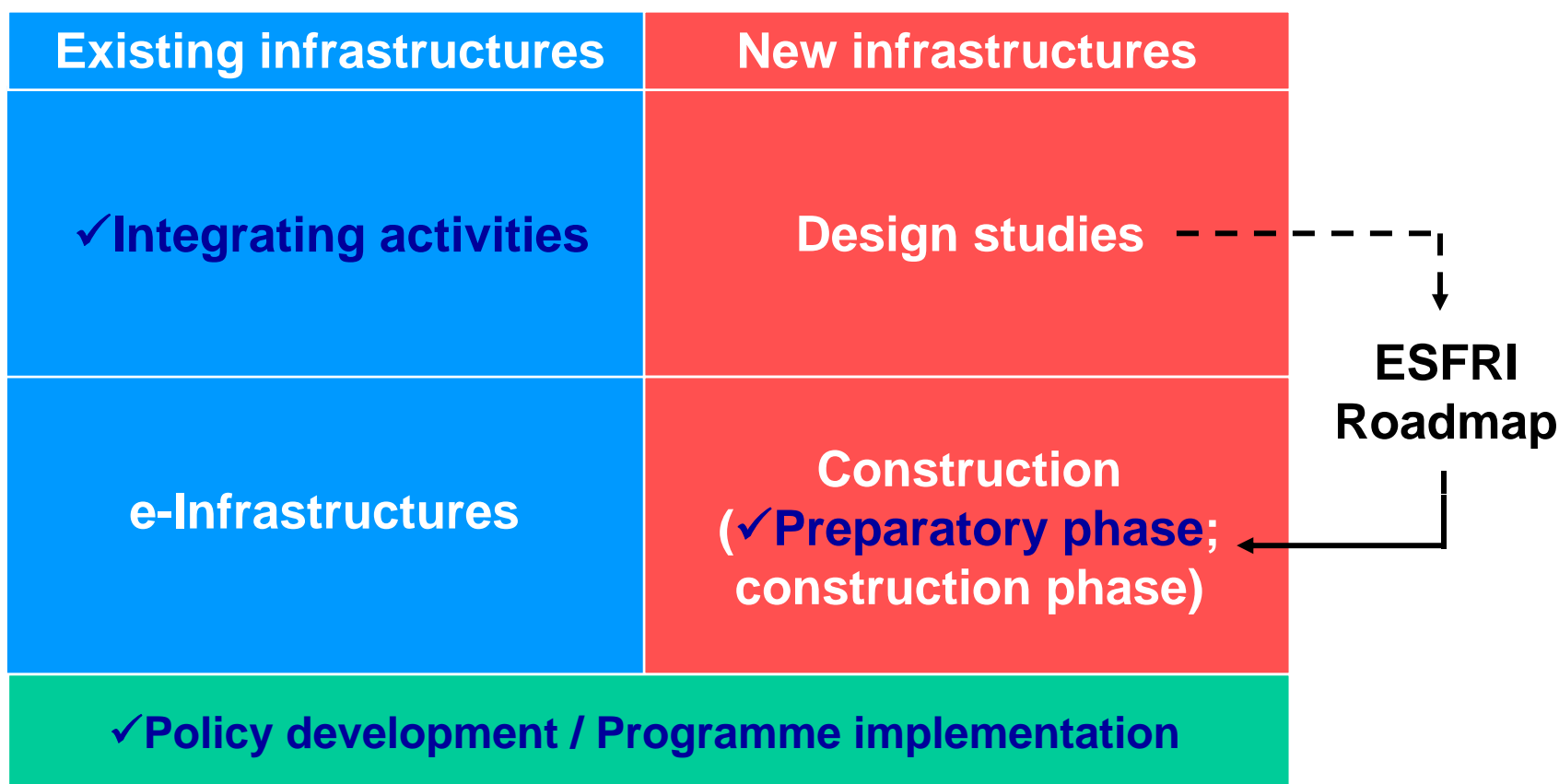




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FP7 Research Infrastructures action



(✓ call FP7-INFRASTRUCTURES-2010-1)





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Call budget

FP7-INFRASTRUCTURES-2010-1

Indicative total budget: **EUR 217 million (M€)**

1.1 Support to existing research infrastructures	
1.1.1 Integrating activities	~ 162 M€
1.2 Support to new research infrastructures	
1.2.2 Construction of new infrastructures (or major upgrades) – Preparatory phase	~ 45 M€
1.3 Support to policy development and programme implementation	~ 10 M€





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Indicative timetable

- Deadline 3 Dec 2009 17:00
(Brussels time)
- Evaluation Dec. 2009 – Feb. 2010
- Evaluation results March 2010
- Launch of negotiation May 2010
- Signature grant agreements from Dec 2010
- Pre-financing 45 days after signature
grant agreement
- Starting date to be negotiated





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Preparatory phase Objectives and activities

- Objectives: to provide **catalytic** and leveraging support for the preparatory phase leading to the construction of new RIs
 - ➔ Bringing the project to the level of **legal** and **financial** maturity
 - ➔ Involving all the necessary stakeholders to make the project move forward, take decision, etc.
- Activities: governance, strategic work, legal and financial work and, if necessary, technical work

*Funding scheme: **CP-CSA** (combination of ‘collaborative project’ & ‘coordination and support actions’)*





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Preparatory phase

Eligibility and requirements

- **Eligibility conditions**
 - ➔ **General** criteria: deadline, completeness, relevance to topics...
 - ➔ **Min. 3 independent entities** from **3 different MS** or **AC**
 - ➔ **Max. requested EC funding: 6 M€**
(warning: € 6.000.000,01 ➔ *proposal NOT eligible!*)
- **Further requirements**
 - ➔ **Maximum 4 years**
 - ➔ **EC funding normally from 3 to 6 M€ (max.)**





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2) Integrating Activity in FP7

- Continuation of the FP6 instrument “I3”
- Collaboration of existing research infrastructures
 - ➔ Normally all major RI's in Europe in one field
- Three types of obligatory activities
 - ➔ *Networking Activities*
 - ➔ *Trans-national Access and/or Service Activities*
 - ➔ *Joint Research Activities*





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Integrating activities

Targeted approach

- This call addresses **35 defined topics**, focusing on strategic priorities
- With topics for the potential follow-up of projects and with topics for the opening to new communities
- More topics than can be funded to ensure competition (around 20 projects expected to be selected)

*Funding scheme: **CP-CSA** (combination of ‘collaborative project’ & ‘coordination and support actions’)*





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Integrating activities

Eligibility and requirements

- **Eligibility conditions**
 - ➔ Deadline, completeness, relevance to topics...
 - ➔ **Min. 3 independent legal entities** from **3 different MS** or AC
 - ➔ **Max. requested EC funding: 10 M€**
(warning: € 10.000.000,01 ➔ *proposal NOT eligible!*)
 - ➔ Three **mandatory** types of activities: (1) networking, (2) transnational access and/or service, (3) JRAs
- **Further requirements**
 - ➔ Maximum 4 years
 - ➔ **One** proposal expected **per topic**, corresponding in general to a **given class** of RI





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Integrating activities

Transnational access and/or service activities

- Provide transnational access to researchers or research teams for one or more infrastructures among those operated by the participants
 - ➔ "Hands-on" access
 - ➔ Remote access: provision of reference material, sample analysis...
- Provide research infrastructures related services to the scientific community
 - ➔ Access to scientific services freely available through communication networks, e.g. databases available on the web



An example of Integrating Activity

ASSEMBLE: Association of European Marine Biological Laboratories

EC contribution: ~8.7 M€
Duration: 48 months
Start date: March 1st, 2009



★ Pontificia Universidad Catolica de Chile

Management (~0.6 M€)

Networking (~0.4 M€):

- Optimizing protocols & ensuring inter-operability
- Unified access to resources

Access (~4.4 M€):

- 17000 units of access
- Access to 9 infrastructures, 31 installations (including 6 remote access services)

Joint Research (~3.3 M€): Improving the provision of :

- whole, multicellular organisms
- cultures of marine protists and cell lines of marine animals
- genetic and genomic resources





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Support to policy Objectives and topics

- Objectives: to enhance the effectiveness and coherence of national and Community research policies, **international cooperation** and the analysis of **emerging needs** in the field of RIs
- Two topics
 - ➔ INFRA-2010-3.1: **ERANET** supporting cooperation for RIs in all S&T fields
 - ➔ INFRA-2010-3.2: **Studies, conferences and coordination actions** supporting policy development, including international cooperation in all S&T fields





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ERANET

Expected proposals

- Objectives: to develop / strengthen cooperation and coordination of **national programmes / policy actions**
- Activities: (1) information exchange, (2) preparation of and (3) implementation of joint activities
- Specific focus on:
 - ➔ **Structuring** not yet fully organised S&T fields
 - ➔ The **regional dimension** of RIs (coordination of RIs hosted by regions and/or financed by Structural Funds)
 - ➔ RIs **observatory** at European level.
 - ➔ **Int'l cooperation** (Europe to speak with one voice)





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Eligibility and requirements

- **Eligibility conditions**
 - ➔ Deadline, completeness, relevance to topic
 - ➔ **Eligible partners** are legal entities defining, financing or managing publicly funded national or regional programmes and/or policy actions
 - ➔ **Minimum 3 eligible partners** established in **different MS or AC**.
- **Further requirements**
 - ➔ Typically **2 to 3 years**
 - ➔ EC contribution normally from **1 to 2 M€**





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Studies, conferences... Expected proposals

- Actions related to the **socio-economic impacts** of RIs
 - Development of new methods and indicators...
 - Forward-looking, prospective, trends per domain...
- Development of the European **Portal** on RIs' Services (as a tool for scientific communities and for policy makers)
- Actions fostering a more balanced **territorial development** and integration of RIs within the ERA (focus on governance and management)
- Actions supporting **international cooperation** and policy initiatives related to RI projects (at global level or with specific interest at international level)





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Studies, conferences...

Eligibility and requirements

- **Eligibility conditions**
 - Deadline, completeness, relevance to topics
 - For CA: **min. 3 independent legal entities** from **3 different MS** or AC
 - For SA: **min. 1 independent legal entity**
- **Further requirements**
 - Typically **1 to 3 years**
 - EC contribution normally from **0,2 to 1 M€**





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Evaluation

- **Based on three major criteria**
- **Do not concentrate your efforts only on scientific issues!**
 - ➔ **Scientific excellence is the major criteria, but...**
 - ➔ **Efficient management of the foreseen action is key for its potential success, and**
 - ➔ **Impacts should not only be measurable on scientific grounds, they also have to cover ERA, socio-economic as well as Human Resources issues (key for the future of Europe!)**





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Contact persons

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- Analytical facilities: *Hugues.Crutzen*
- Physics: *Christian.Kurrer*
- Preparatory phases, int'l cooperation: *Elena.Righi-Steele*
- ERANET, territorial development & ERA: *Christos.Profilis*





Research Infrastructures

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Call 7 (FP7- **INFRASTRUCTURES- 2010-2)**

European Commission, DG INFSO
GEANT & e-Infrastructures Unit

e-Infrastructures for Science

...ubiquitous research environments for accessing and sharing resources and tools...

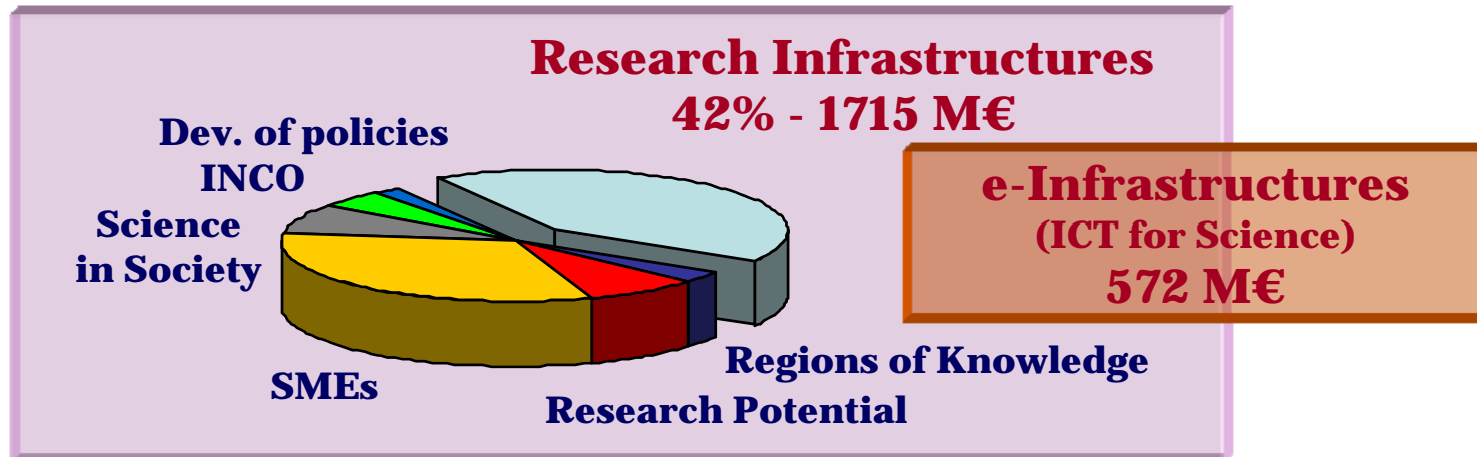
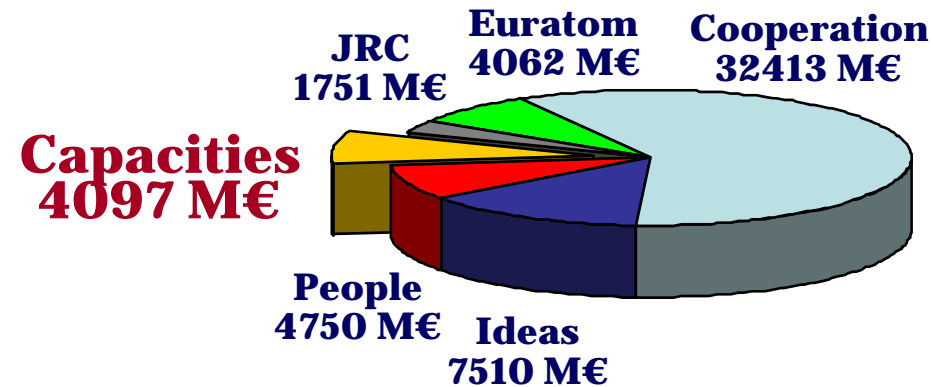




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FP7 Budget Overview (2007-13)



e-Infrastructures Today



Innovating the scientific process:
global virtual research communities



Accessing knowledge:
scientific data



Experimenting *in silico*:
simulation and visualisation



Sharing the best computational resources:
e-Science grid, supercomputing



Linking at the speed of the light:
GÉANT



Topic objectives

INFRA-2010-1.2.1: Distributed computing infrastructure (DCI)

- 1.2.1.1– European Grid Initiative (EGI)
- 1.2.1.2 – Service deployment
- 1.2.1.3 – Middleware and repositories
- 1.2.1.4 – Access to DCI platforms
- 1.2.1.5 – Extension of DCI platforms

All DCI proposals are encouraged to consider the international dimension, education & training and standards. Innovation in services and technology is encouraged.

- Closing date 24/11/2009



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Essential documents

- **Work Programme (FP7 ‘Capacities’, Research Infrastructures, 2010) and ‘Call fiche’**
- **Guides for applicants**
 - ➔ **Practical information on how to apply (electronic submission of proposals only)**
 - ➔ **Specific to a call and a funding scheme**
 - ➔ **Instructions for completing ‘part A’ (forms) and drafting ‘part B’ (text) of the proposal**

(on Cordis web site, along with other useful documents)





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Other relevant information

- **FP7 and Capacities Specific Programme**
 - ➔ <http://cordis.europa.eu/fp7/>
 - ➔ <http://cordis.europa.eu/fp7/capacities/>
- **Research Infrastructures - Europa website**
 - ➔ <http://ec.europa.eu/research/infrastructures/>
- **ESFRI on CORDIS**
 - ➔ <http://cordis.europa.eu/esfri/>

Thank you!

