



EUROPEAN  
COMMISSION

Community research

# Research Infrastructures in FP7



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# Information on Research Infrastructures in FP6

## Facts and Figures:

- Total budget: **722 M€**
  - *of which 220 for GRID + GEANT*
- Number of projects **131**
- Number of RI supported **248**
- Potential number of users **> 20000**



# FP7 2007 - 2013

***Cooperation* – Collaborative research**

***Ideas* – Frontier Research**

***People* – Human Potential**

***Capacities* – Research Capacity**

**+**

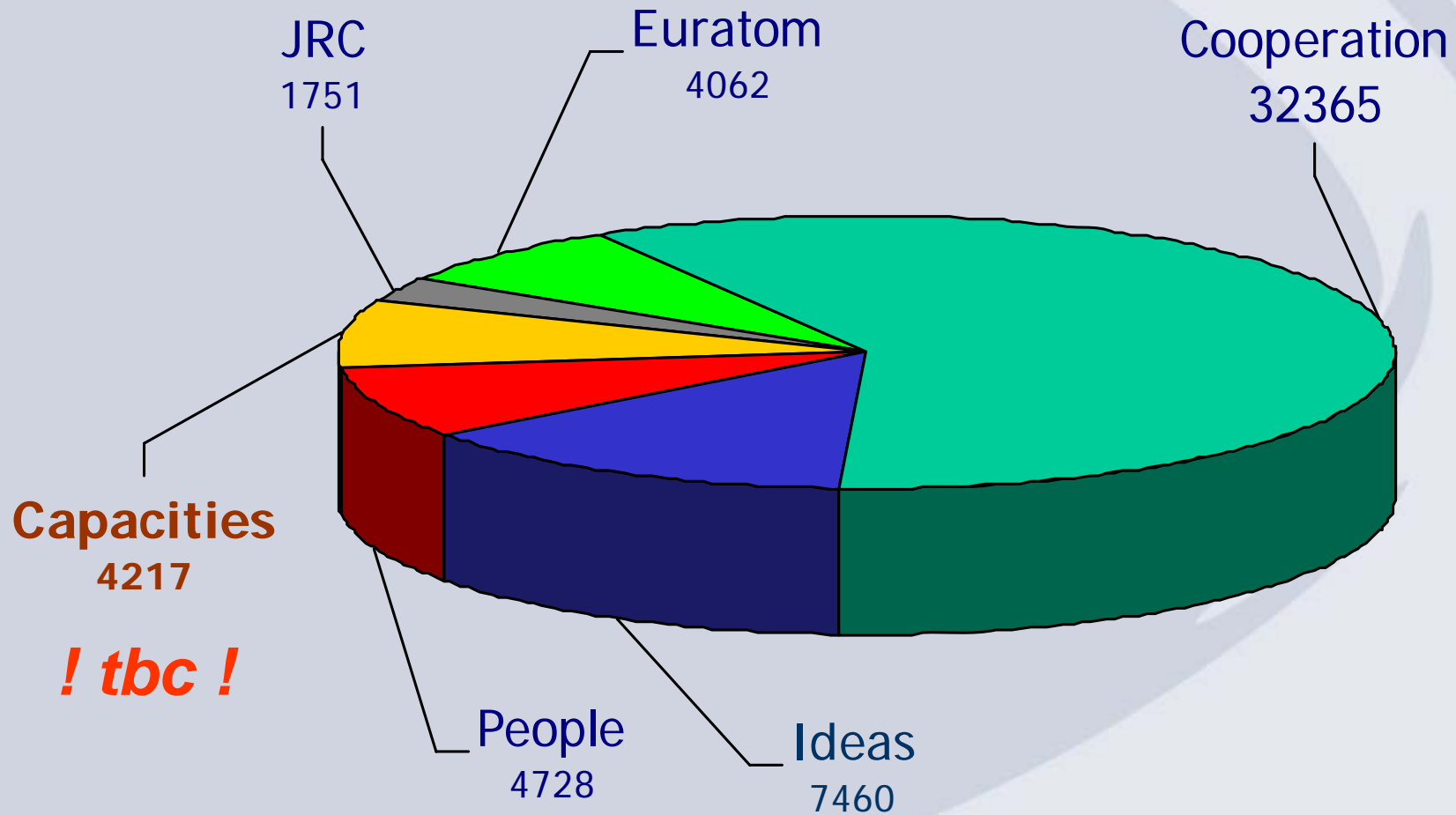
**JRC (non-nuclear + nuclear)**

**Euratom**



# FP7 budget (€ billion, current prices)

Source: revised FP7 agreed by Council on July 2006





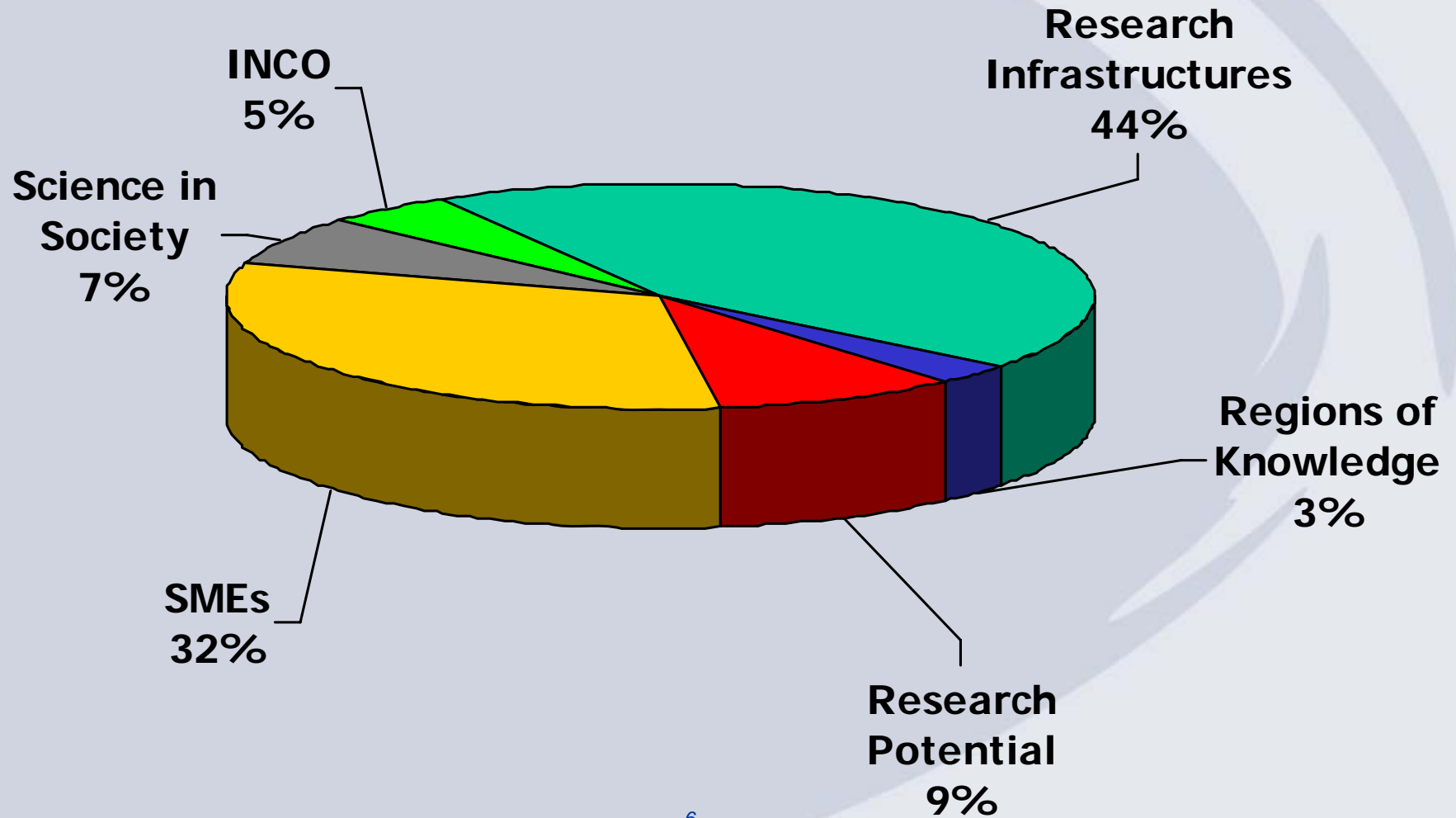
## “Capacities” Specific Programme

1. **Research Infrastructures**
2. Research for the benefit of SMEs
3. Regions of Knowledge
4. Research Potential
5. Science in Society
6. Activities of International Cooperation



# SP Capacities budget

***! tbc !***





## A definition for Research Infrastructures

- Term refers to “facilities”, “resources” and related “services” that are needed by the research community to conduct research in all scientific and technological fields
- Definition covers: major equipments, knowledge based resources (collections, archives,...), enabling ICT-based infrastructures (Géant, Grids,...) and any other entity of a unique nature used for research



## Objectives of the Research Infrastructures actions

- Optimising the use and development of the best research infrastructures existing in Europe
- Helping to create in all fields of S&T **new research infrastructures** of pan-European interest needed by the European scientific community





## FP7 will continue supporting the integration of existing Research Infrastructures

- Integrating Activities to promote the coherent use and development of research infrastructures in a given field

Implementation through:

- Bottom-up calls for proposals open to all fields of science
- Targeted calls implemented in cooperation with thematic areas
- Development of e-infrastructures in support of scientific research



## The Integrating Activities model under FP7

- Three types of activities will be compulsory:
  - Networking Activities
  - Transnational Access/Service Activities
  - Joint Research Activities
- Funding scheme: Combination of Collaborative Research and Co-ordination and Support Actions



FP7 will also develop a **targeted** approach  
towards **Integrating Activities**  
*Identified priority topics (call 2007)*

- Health (6)
- Food, Agriculture and Biotechnology (3)
- Information and Communication Technologies (3)
- Nanosciences, Nanotechnologies and Materials (2)
- Energy (5)
- Environment (4)
- Transport (3)
- Socio-economic Sciences and Humanities (4)



## RI targeted approach *justification (one example of 30)*

- **Priority topic:** *To bring together existing facilities to support at EU level the efficient provision of essential research services to provide access to high performance imaging applied to clinical research*
- **Link with the Cooperation programme:** *Reference to the HEALTH WP such as "Mechanisms underlying brain damage"; "Combating stroke"; or "Use of beta cell imaging in diabetes mellitus"*
- **Involved:** *Typical existing RI relevant to the topic*



## FP7 will also increase support to **new Research Infrastructures**

- **Design studies:** to support feasibility studies and technical preparatory work for new facilities of clear European dimension and interest (through bottom-up calls)
- **Construction of new infrastructures** and major upgrades to existing ones

The list of projects to be supported will be based on the work conducted by the European Strategy Forum on Research Infrastructures (ESFRI)



# Design Studies

- Design studies aiming at « conceptual » design, not detailed design
- Total costs likely smaller than under FP6, i.e. less than 5 M€
- Scope larger than the ESFRI identified « emerging ideas »... bottom-up possible...



# Construction Phase

## *Preparatory phase*

- Support to the **ESFRI roadmap** in 2007
- Important phase to check that projects are **recognised by Member States** as important for Europe
- **Tasks supported** ranging from technical work and strategy development, to preparation of logistics, governance plans, legal and financial issues  
main **deliverable**: a (draft) agreement between MS and stakeholders for the construction
- EC support similar to FP6 «design studies», i.e. 5 to 10 M€ in average - ??

***! tbc !***



## What is ESFRI ?

- European Strategy Forum on Research Infrastructures
- Launched in April 2002
- Brings together representatives of the 25 Member States, 7 Associated States, and one representative of the European Commission (EC)







## Role of ESFRI **fostering, incubation and stimulation**

- bring projects to a point where decisions by ministers are possible
- discussions and decisions at national level in particular as regards the lead role of one country or several countries
- follow-up of national roadmaps and earmarking of dedicated national budgets



# Objectives of ESFRI Roadmap

*(to be presented on 19 October 2006)*

- **Identification** of new research infrastructures or major upgrades which correspond to the needs of European research communities
- **Tool** for decision makers, preventing over-provision of facilities in particular areas
- Providing a focus for long term budgetary **planning** by funding actors



## The Roadmap

- **Identified projects** are of pan-European interest and of scientific excellence; they have reached a sufficient level of “maturity”
- **Large participation of experts**: Almost 1000 high level experts were involved and consulted in the process during 2005-2006
- **Global dimension**: Several projects are of such a scale and scope that they require a global approach



# Structure of ESFRI Roadmap Report

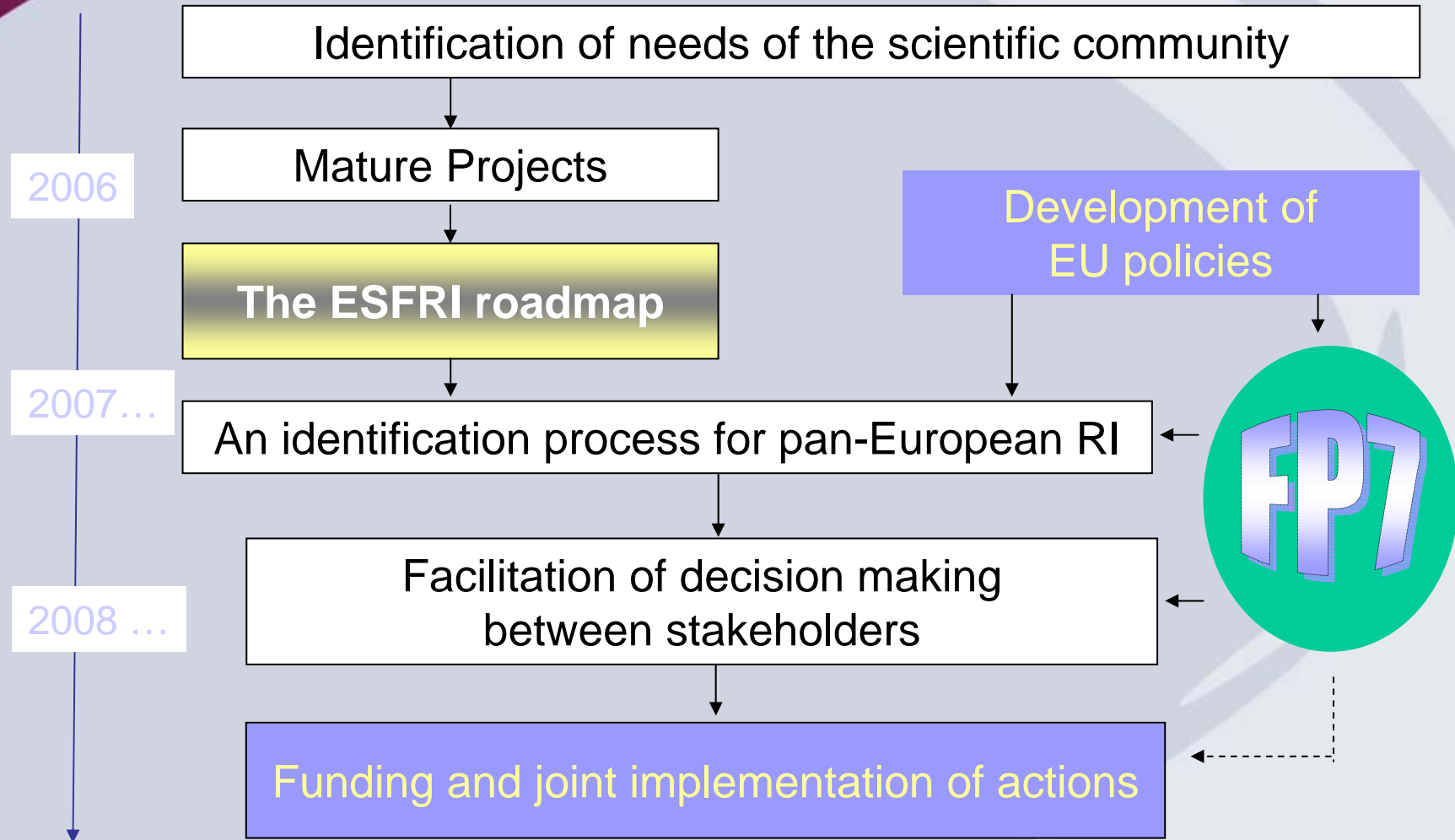
## *Overview of recommended first actions*

### ➤ 36 projects covering 7 domains

- social sciences & humanities
- environmental sciences
- energy
- biomedical & life sciences
- materials sciences
- astronomy, astrophysics, nuclear and particle physics
- e-Infrastructures



# The Roadmap and FP7



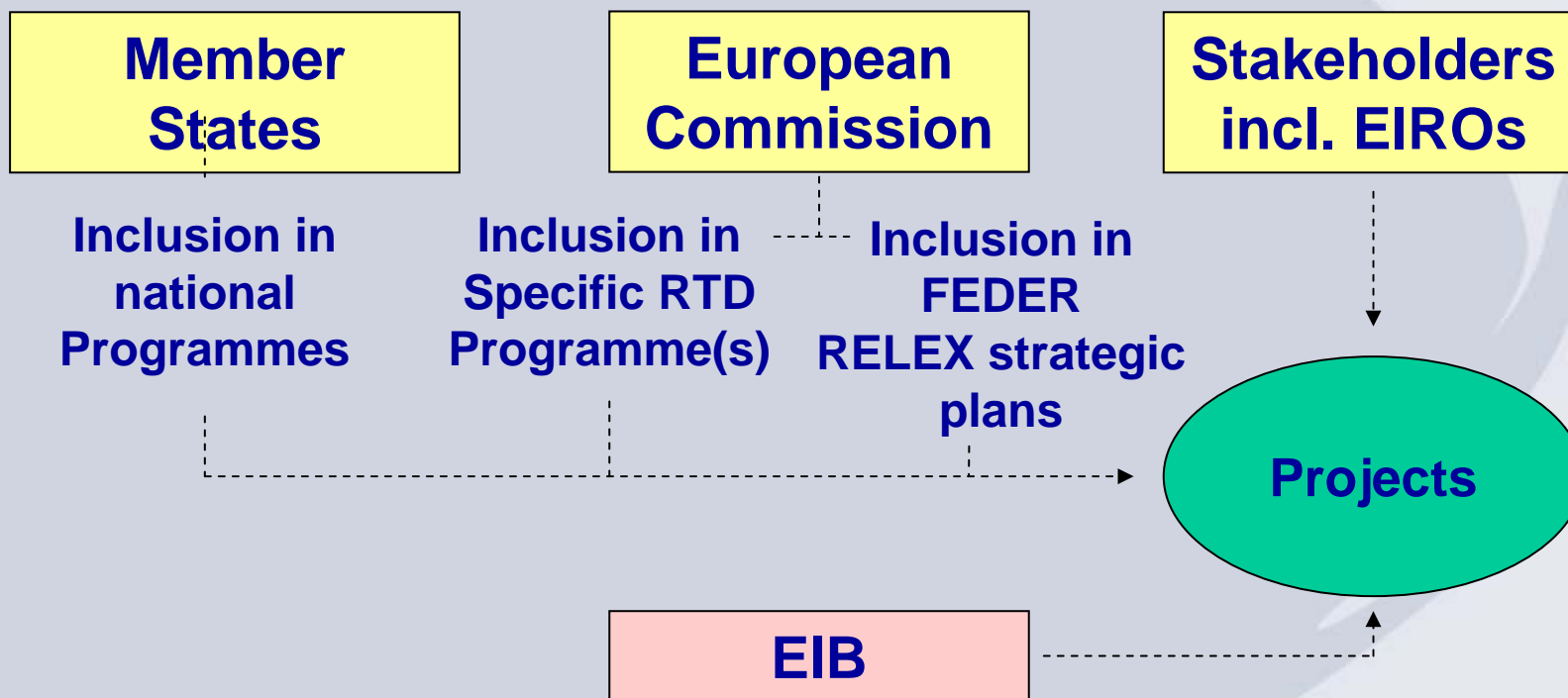


## Construction of *new* Research Infrastructures - a two-stage process:

- **The preparatory phase**
  - restricted calls targeting projects identified on the ESFRI Roadmap (in a first step)
    - ☞ to support the preparation of the construction plans, of the legal organisation, and of the management aspects
- **The implementation phase**
  - developed following the satisfactory achievement of the preparatory phase



# The challenge: increased use of financial engineering for new research infrastructures





# Construction Phase

## *Synergies with other instruments*

- Structural Funds:
  - Construction of new RI eligible under SF
  - Construction spanning over the next 10 years
  - Preparatory phase needed to prepare files
- Risk Sharing Finance Facility:
  - Stimulation of a new financial tool for research organisations (several show cases already existing)
  - Eligibility will concern facilities with ownership or operation involving entities in at least 3 MS or AC
  - 40 M€ already available in 2007





In brief:

## Research Infrastructures

Existing

New

Implementation

Bottom-up

Strategic

Integrating activities

Design studies

Integrating activities;  
e-infrastructures

Construction  
(preparatory phase;  
construction phase)

ESFRI  
Roadmap



## FP7 Accompanying measures

Support measures, through a mixed bottom-up/top-down approach, for:

- the development of a **European policy** for RI
- the development of **international cooperation**
- the coordination of research infrastructures in **emerging areas**



## Funding Schemes

- For Integrating Activities e-infrastructures:
  - *a combination of collaborative research and coordination and support measures*
- For new research infrastructures:
  - *collaborative research and coordination and support measures (when more appropriate)*
- For support actions:
  - *coordination and support measures*
  - *ERANET to be used for supporting coordination of national/regional policies*



## Evaluation Criteria

### *Excellence*

- relevance at international level; capacity to offer a top-level service to scientists

### *Impact*

- added value of EU support; RI impact on ERA as well as on EU sustainable development

### *Implementation*

- life-cycle costs evaluated; quality of management; stakeholders' commitment



**! tbc !**

## Overview of Budget & possible timing of calls

	Indicative budget	Call 1 2007-08	Call 2 2008-09	Call 3 2010-11	Call 4 2012-13
Integrating activities	≈ 700		≈ 290	≈ 270	≈ 140
e-Infrastructures	≈ 410	≈ 110	≈ 95	≈ 120	≈ 85
Design studies	≈ 75	≈ 35		≈ 40	
Construction phase 1	≈ 210	≈ 135		≈ 75	
Construction + RSFF	≈ 140 + 200				
Support measures (RTD)	≈ 45	≈ 10	≈ 5	≈ 15	≈ 15
Total (€)	≈ 1780	≈ 290	≈ 390	≈ 520	≈ 240



## Useful links

- Research Infrastructures on CORDIS (FP6)  
<http://cordis.europa.eu/infrastructures/>
- List of funded projects (FP6)  
<http://cordis.europa.eu/infrastructures/projects.htm>
- ESFRI (European Strategy Forum for Research Infrastructures)  
<http://cordis.europa.eu/esfri/home.html>
- Specific Programme Capacities  
<http://cordis.europa.eu/fp7/capacities.htm>
- FP7 Proposal  
<http://cordis.europa.eu/fp7/>