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# Structuring the European Research Area

**ASPERA Workshop  
Amsterdam  
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European Commission**

Amsterdam, 21 September 2007





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## European Research Area

*3 concepts*

- the creation of an **"internal market" in research** (free movement of knowledge, researchers and technology)
- the **restructuring** of the **European research fabric** (improved coordination of national research activities and policies)
- the development of a **European research policy** (taking into account other EU and national policies)



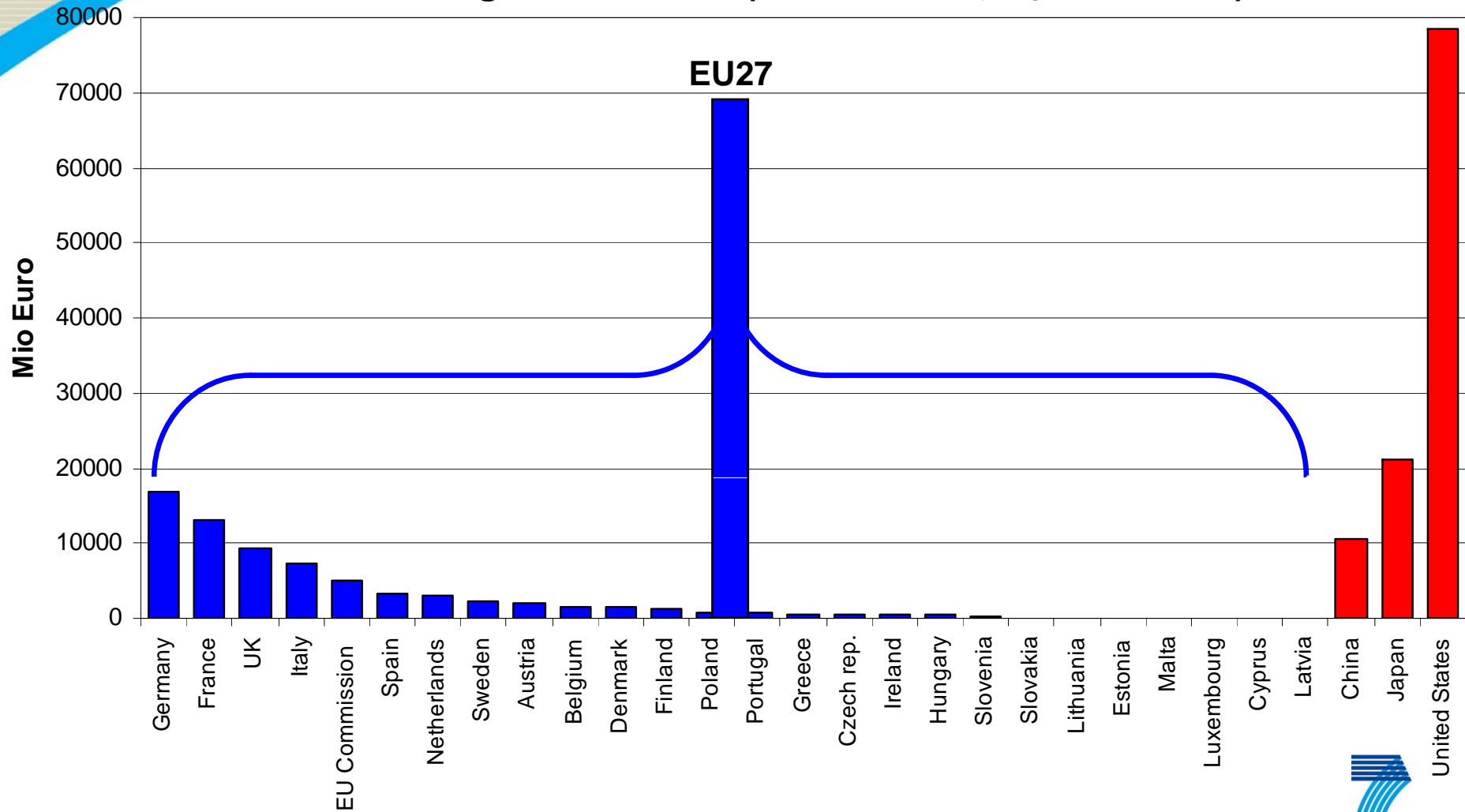
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# Restructuring a fragmented ERA

Public Funding for Research (Source : ERA Key Figures 2005, EC)





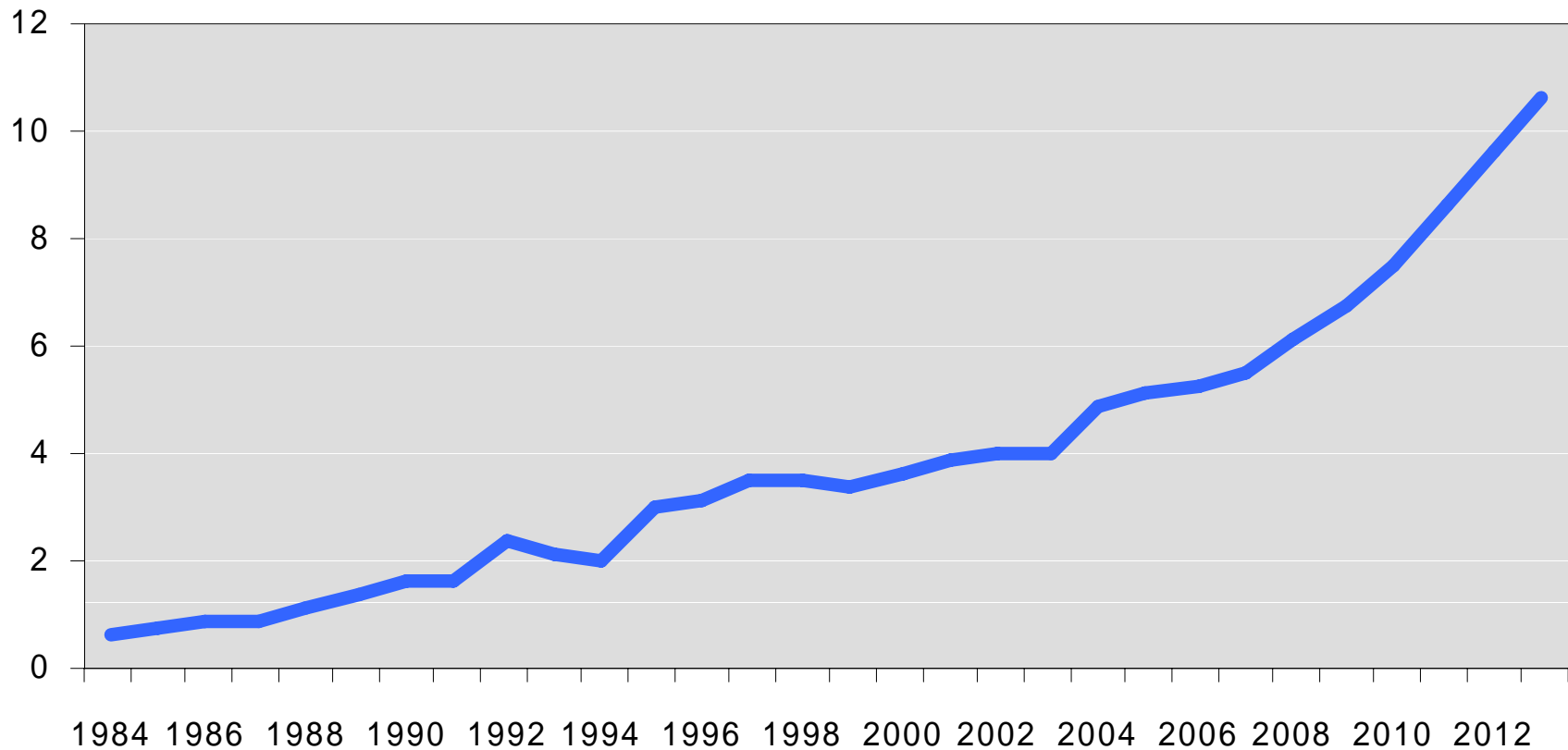
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# EU Research Framework Programmes

## Annual Budgets between 1984 and 2013

€billion



NB: budgets in current prices. Source: Annual Report 2003, plus FP7 revised proposal

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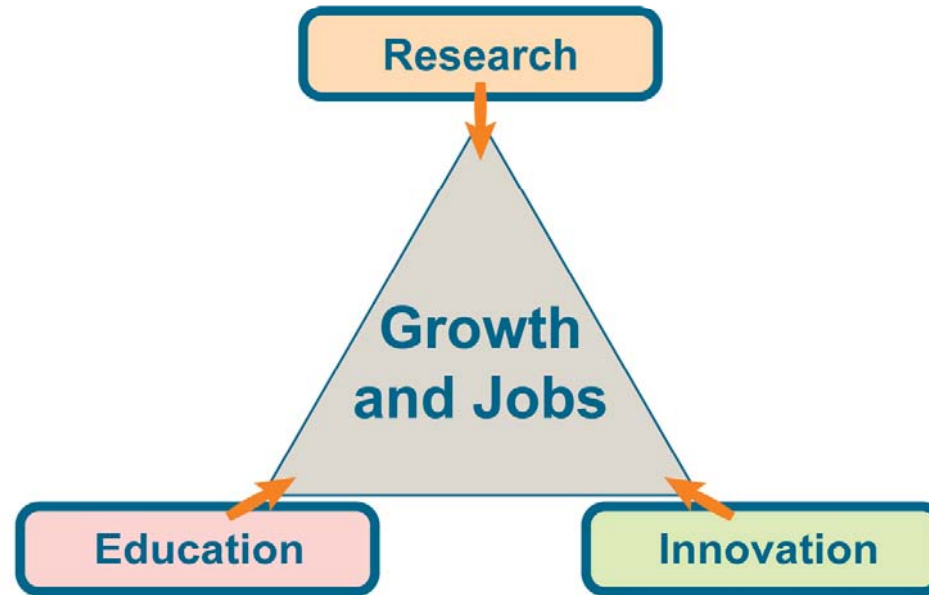




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# FP7: Nurturing the the knowledge triangle



S&T contributes to the **Lisbon** objectives: economic **growth**, **employment** creation, **environmental** protection, **social** challenges: fight **poverty**, improve human **health** and **quality** of life (GSM, remote working, safe roads, etc.)



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# What's new in FP7?

Main new elements compared to FP6:

- **Duration** increased from 5 to 7 years
- Significant average annual **budget increase (40% over FP6)**
- New **structure**: “Cooperation”, “Ideas”, “People”, “Capacities”
- **Joint Technology Initiatives** (possibly using Treaty Art. 171)
- Extension of use of Treaty **Article 169**
- **Frontier research - ERC** (~ €1 billion per year)
- **Enlarged scope** of researcher **mobility** schemes
- European approach to **Research Infrastructures**
- Flexible “**Funding Schemes**”
- **Simpler procedures**
- Setting up of a “**Guarantee Fund**” and of the “**RSFF**”
- **Externalisation** of certain tasks to Executive Agencies



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# FP7 (2007 – 2013) Specific Programmes

*Cooperation* – Collaborative research

*Ideas* – Frontier Research

*People* – Marie Curie Actions

*Capacities* – Research Capacity



JRC non-nuclear research

*Euratom* direct actions – JRC nuclear research

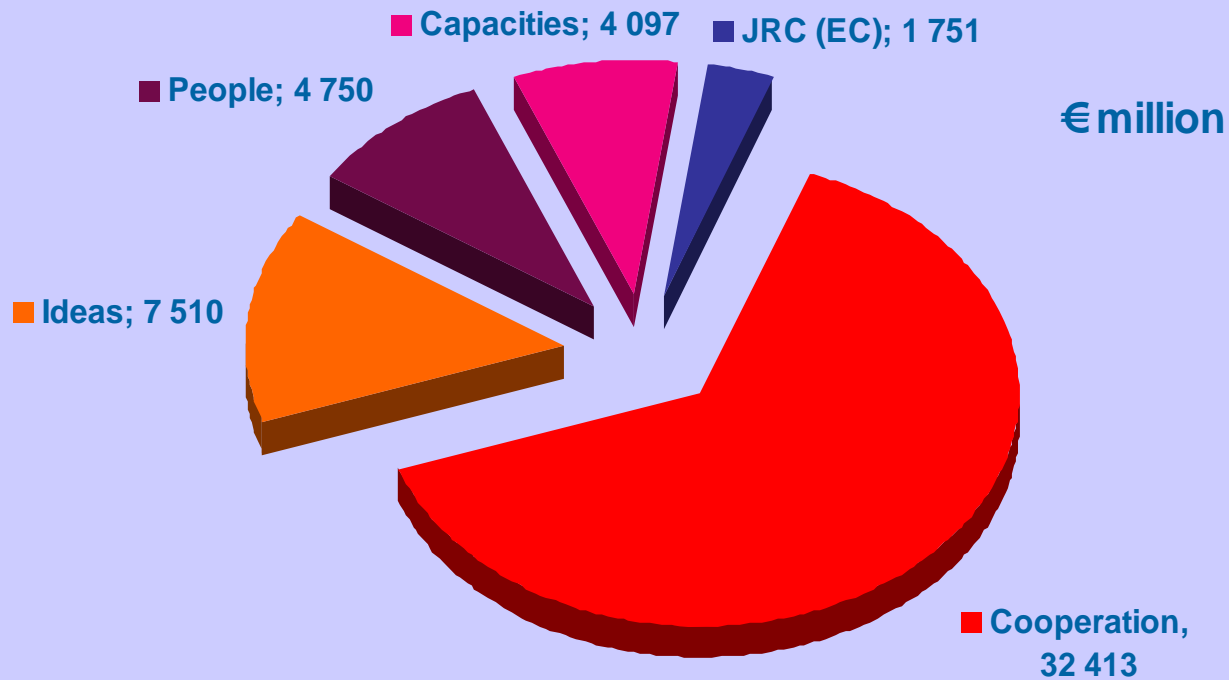
*Euratom* indirect actions – nuclear fusion and fission research



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# FP7 budget (€ 50 521 million, current prices)



■ Note: Euratom FP: €2.7 billion over 5 years - not included above





# Cooperation – Collaborative Research

- Under each theme there will be sufficient flexibility to address both *Emerging needs* and *Unforeseen policy needs*
- Dissemination of knowledge and transfer of results will be supported in all thematic areas
- Development of standards is an objective in many activities
- Support will be implemented across all themes through:

## Collaborative research

(Collaborative projects; Networks of Excellence; Coordination/support actions)

## Joint Technology Initiatives

Coordination of non-Community research programmes  
(ERA-NET; ERA-NET+; Article 169)

## International Cooperation



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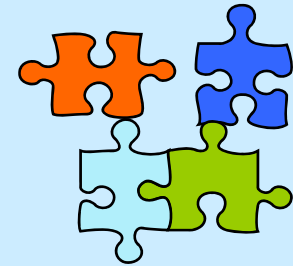
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## Coordination of national programmes Overview FP7

### **ERA-NET**

Like in FP6: Coordination of programmes

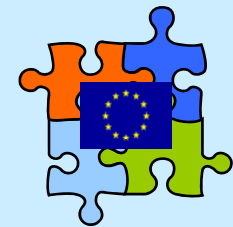
- ✓ MS agree and fund joint calls/programmes
- ✓ EU funding only for coordination



### **ERA-NET Plus**

New in FP7: Top up of a single joint call

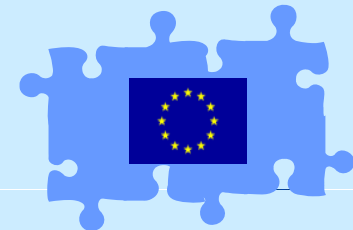
- ✓ MS contribute to a joint trans-national call 2/3
- ✓ EU funding for research: 1/3 of the joint call



### **Art. 169**

Full integration of national programmes

- ✓ Scientific and financial: strong EU funding
- ✓ Single implementing structure





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# Article 169 in FP7

## *Participation of the **Community** in research programmes **jointly** Implemented by Member States*

### Article 169

‘In implementing the multiannual Framework Programme, the Community may make provision, in agreement with the Member States concerned, for participation in research and development programmes undertaken by several Member States, including participation in the structures created for the execution of those programmes’

- European co-operation on a large-scale in ‘variable geometry’ between Member States
- Co-operation between Member States sharing common needs and/or interests
- Identification of Art. 169 initiatives on the basis of clear criteria



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# Article 169 Roadmap

**Four potential initiatives identified in the FP 7 Specific Programmes:**

**EUROSTARS**  
(Support to  
research performing SMEs)

**Ambient Assisted  
Living**

**BONUS – 169**  
(Baltic Sea Research)

**European Metrology  
Research Programme  
(EMRP)**

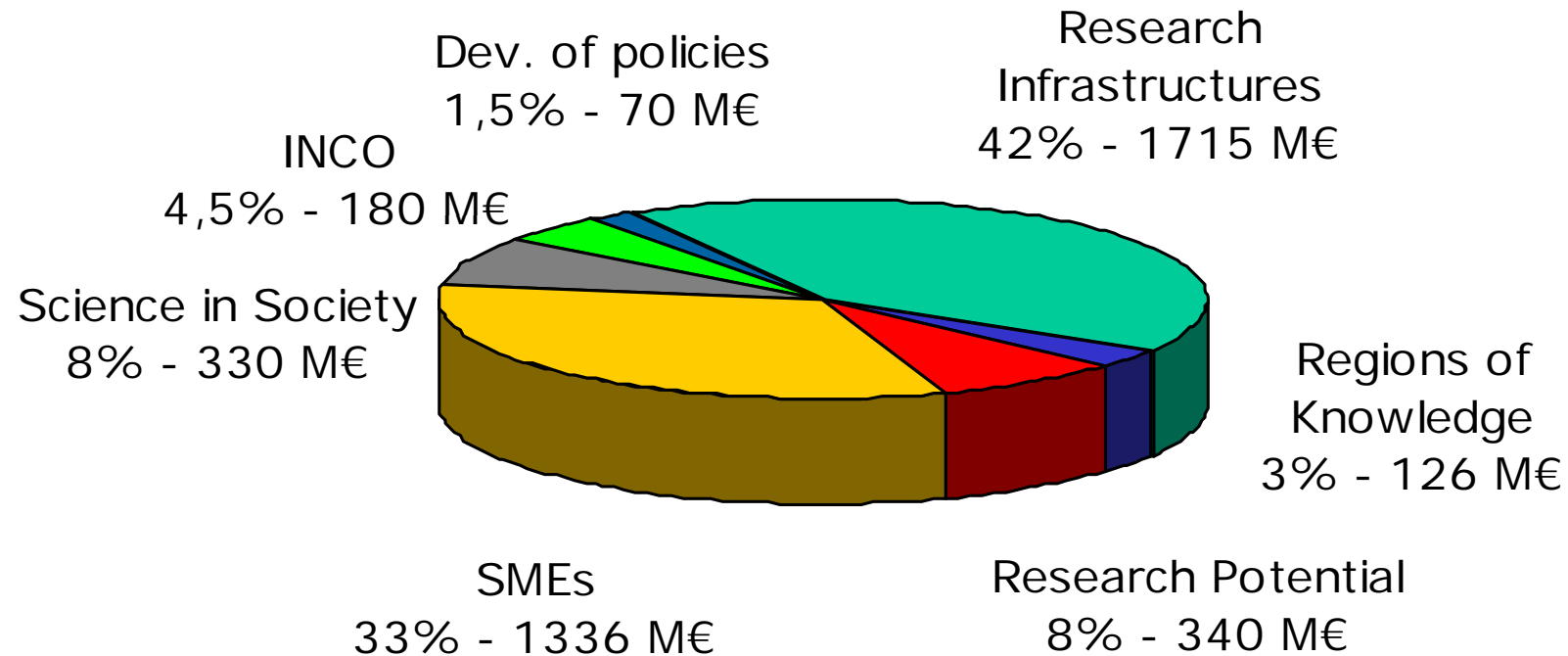
*Other possible themes  
to be identified later...*



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# The Capacities Programme





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# Objectives of the Community Research Infrastructures action

- Optimising the use and development of the best existing research infrastructures in Europe
- Helping to create in all fields of S & T new research infrastructures of pan-European interest needed by the European scientific community
- Supporting programme implementation and policy development (e.g. international cooperation)



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# FP7 will continue supporting existing Research Infrastructures

- **Integrating Activities** to promote the coherent use and development of research infrastructures in a given field, *implemented through*:
  - A **bottom-up** approach for proposals open to all fields of science
  - **Targeted** approach with topics defined in cooperation with the FP7 thematic areas
- **ICT based e-infrastructures** in support of scientific research

580 M€  
2007-2013

420 M€  
2007-2013



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## FP7 will also increase support to new research infrastructures

- **Design studies:** to support the conceptual design for new facilities or major upgrades, of clear European dimension and interest
  - through bottom-up calls
- **Support to the Construction of new infrastructures and major upgrades** to existing ones, based on ESFRI Roadmap
  - Preparatory phase
  - Construction phase

70 M€  
2007-2013

530 M€  
2007-2013





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# FP7 support to the construction of new Research Infrastructures

- Support to the preparatory phase  
mainly based on the work conducted by ESFRI  
two calls foreseen (2007 and 2009)
- Support to Risk Sharing Finance Facility
- (limited) available resources to support the construction

200-230 M€  
2007-2013

200 M€  
2007-2013

100-130 M€  
2007-2013



# What is ESFRI?

**A European Strategy Forum  
on Research Infrastructures  
Launched in April 02**

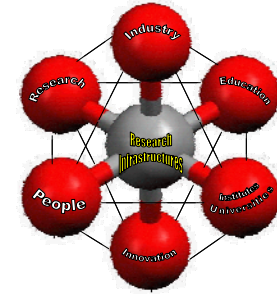
**Brings together  
representatives of the 27 Member States,  
7 Associated States, and one representative of the European  
Commission (EC)**



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# Role of ESFRI



- To foster an “open method of coordination” between different countries
- To discuss the long term vision at European level and to support the development of a European RI policy
- To bring initiatives and projects to a point where decisions by ministers are possible

*A stimulation and incubator role*



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# The Roadmap



- First "edition": **October 2006**
- Addressing seven (7) fields of Research and major challenges
- From about original 200 proposals, thirty five (35) projects have been identified through several review stages
- Community produced ideas that will open up new and unexpected areas of knowledge

*Some fields should be stimulated for further integration*

- Update: **October 2008**



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# A new look at ERA- Green paper (April 2007, broad consultation)

## ■ Why?

### → Globalisation

- Accelerated rhythm
- New actors
- Urgent societal challenges
- New opportunities for Europe and the world

### → Ensuring Europe's competitive edge



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## Issues addressed

1. Single labour market for researchers
2. World-class research infrastructures
3. Strengthening research institutions
4. Sharing knowledge
5. Optimising national and European programmes
6. Opening to the world



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# Questions for the debate

- Whether there is agreement on this vision
- What should be the sharing of tasks between EU / national / regional levels
- Specifically what EU initiatives would be needed to realise such an ERA



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# 1. Single labour market for researchers

## ■ Overall assessment

- **Careers and mobility:** still curtailed in Europe
- **Untapped potential:**  
Women, older researchers, S&T graduates
- **Voluntary approaches:** insufficient progress
- **Education and training:** beyond Bologna





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## 2. World-class research infrastructures

### ■ Overall assessment

- **ESFRI Roadmap**: to complete, validate and fund
- **Funding**: MS, EU, business - €14bn over 10 years
- **Adequate legal structure**: needed for public/private partnerships?
- **Electronic infrastructures**: growing role to play



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## 3. Strengthening research institutions

### ■ Overall **assessment**

→ Challenges: world-level **excellence & critical mass**

→ Possible responses:

- **Concentration and specialisation**
- **Autonomy and accountability**
- **Output-based public funding**
- **Professional management**
- **Virtual research communities / centres of excellence**



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## 4. Sharing knowledge

- **Overall assessment**
  - **Enhanced access** notably through ICTs
  - **Knowledge sharing** between public research and industry (identify good practices/model)
  - **IPR**: Patent and research-specific issues
  - **Society** and **policy-making**: innovative approaches for communicating science



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## 5. Optimising programmes and priorities

- Overall assessment
  - Promoting **coherence** of national/regional programmes (*ERA-NET, Art. 169, ETP, JTI*)
  - **Reciprocal opening** of national/regional programmes
  - **Joint programming** for society-driven research
  - Better coordination between **Intergovernmental** research organisations and EU research (*EIROforum, COST, E!*)



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## 6. Opening to the world

- Overall assessment
  - Growing **S&T contribution** to wider policy objectives (*prosperity, security, sustainable development*)
  - **EU / national coordination** should improve
  - **Coherent strategy** toward neighbouring countries, developing world, industrialised/emerging economies
  - **Speaking with one voice**
  - **Favouring multilateral frameworks**



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## Public debate and further steps

- European institutions
- Member States / Regions
- Researchers
- Research institutions
- Business
- Citizens
- Experts, academics

→ ***Initiatives in 2008***

Online  
consultation  
May - August  
2007

Institutional  
& stakeholder  
conference  
Lisbon  
October 2007