



EUROPEAN
COMMISSION

Community research

Building a
Europe of
Knowledge

Towards the
Seventh
Framework
Programme

Challenges for
University
Management

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Why research at EU level?

- Pooling and leveraging resources
 - Pooling of resources
 - “Critical mass”
 - Inter-disciplinarity
 - Rising costs of R&D
 - “Large” science
 - Leverage effect on private investment
 - Expertise beyond national level
 - Improved commercial opportunities
 - Development of pan-European and world standards
- Fostering human capacity and excellence in S&T
 - International mobility and training of researchers
 - Improved S&T capabilities
 - EU-wide competition for research grants
- Better integration of European R&D
 - Create scientific base for pan-European policy challenges
 - Coordination of national programmes and policies
 - Efficient dissemination of research results



R&D – European weaknesses



	EU-25	US	Japan
R&D intensity (% of GDP) ⁽³⁾	1.93	2.59	3.15
Share of R&D financed by industry (%) ⁽²⁾	6	63.1	74.5
Researchers per thousand labour force (FTE) ⁽³⁾	5.4	9.0	10.1
Share of world scientific publications (%) ⁽³⁾	38.3	31.1	9.6
Scientific publications per million population ⁽³⁾	639	809	569
Share of world triadic patents (%) ⁽¹⁾	31.5	34.3	26.9
Triadic patents per million population ⁽¹⁾	30.5	53.1	92.6
High-tech exports as a share of total manufacturing exports (%) ⁽³⁾	19.7	28.5	26.5
Share of world high-tech exports (%) ⁽²⁾	16.7	19.5	10.6

Note: ⁽¹⁾ 2000 data ⁽²⁾ 2002 data ⁽³⁾ 2003 data

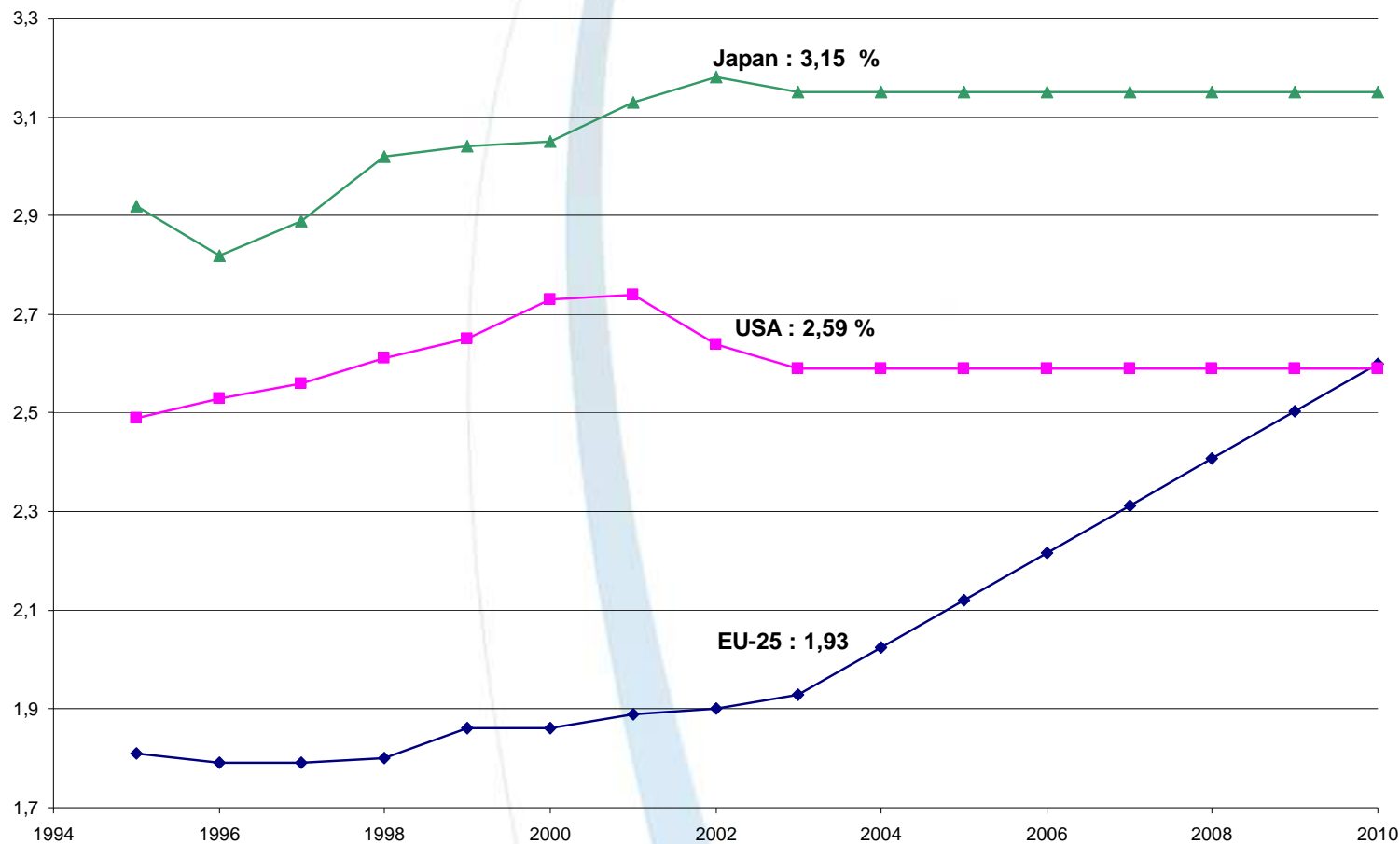


Research: filling the gap

Total expenditure on R&D, % of GDP



(EU-25 extrapolation based on R&D intensity targets put forward by Member States in their respective National Reform Programmes)





Why increase the FP7 budget?

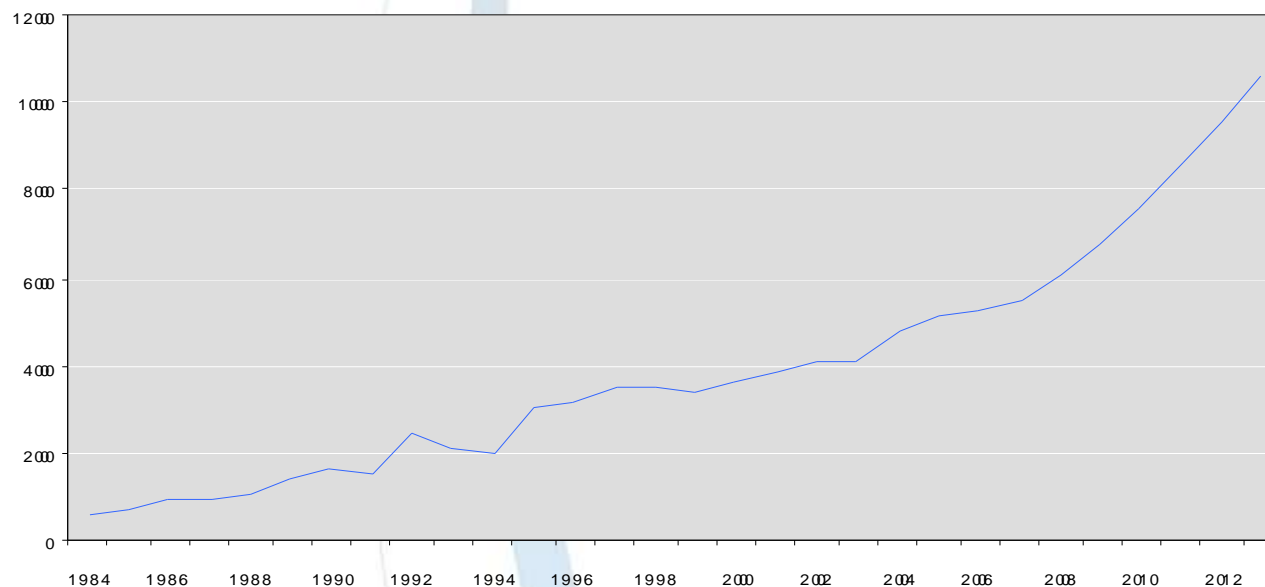
- Tackle under-investment by exerting leverage on national and private investment
- Tackle fragmentation of research effort in the EU and enhance its efficiency and effectiveness
- Reinforce and widen the scope of the FP
- Help to meet new S&T challenges, escalating costs



Budgets of the EU Framework Programmes 1984-2013



€million



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



FP7: Continuity and Novelty



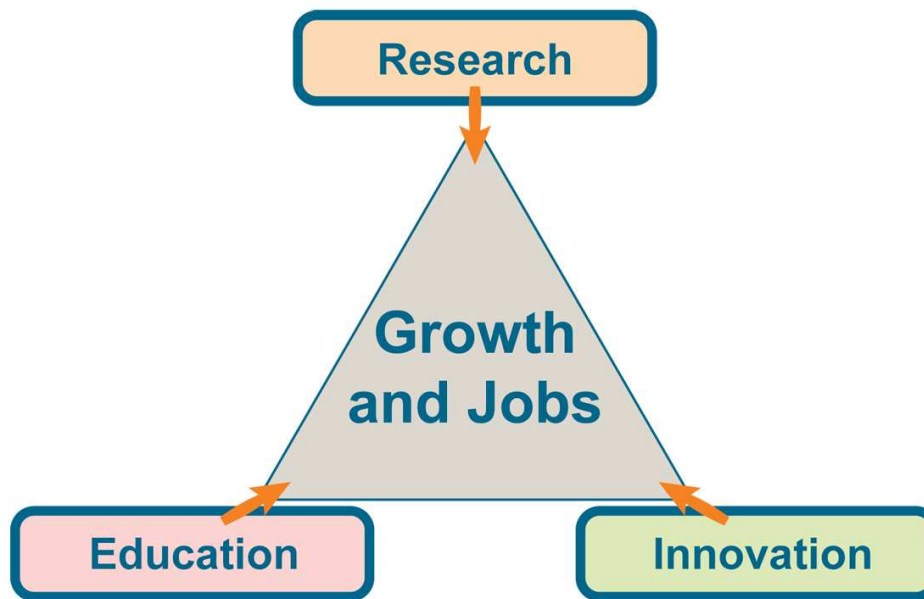
Large degree of continuity with FP6

- Continuing drive for building ERA
- Similar thematic coverage
- Similar “Funding Schemes”

But also considerable novelty



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.)



What's new in FP7?

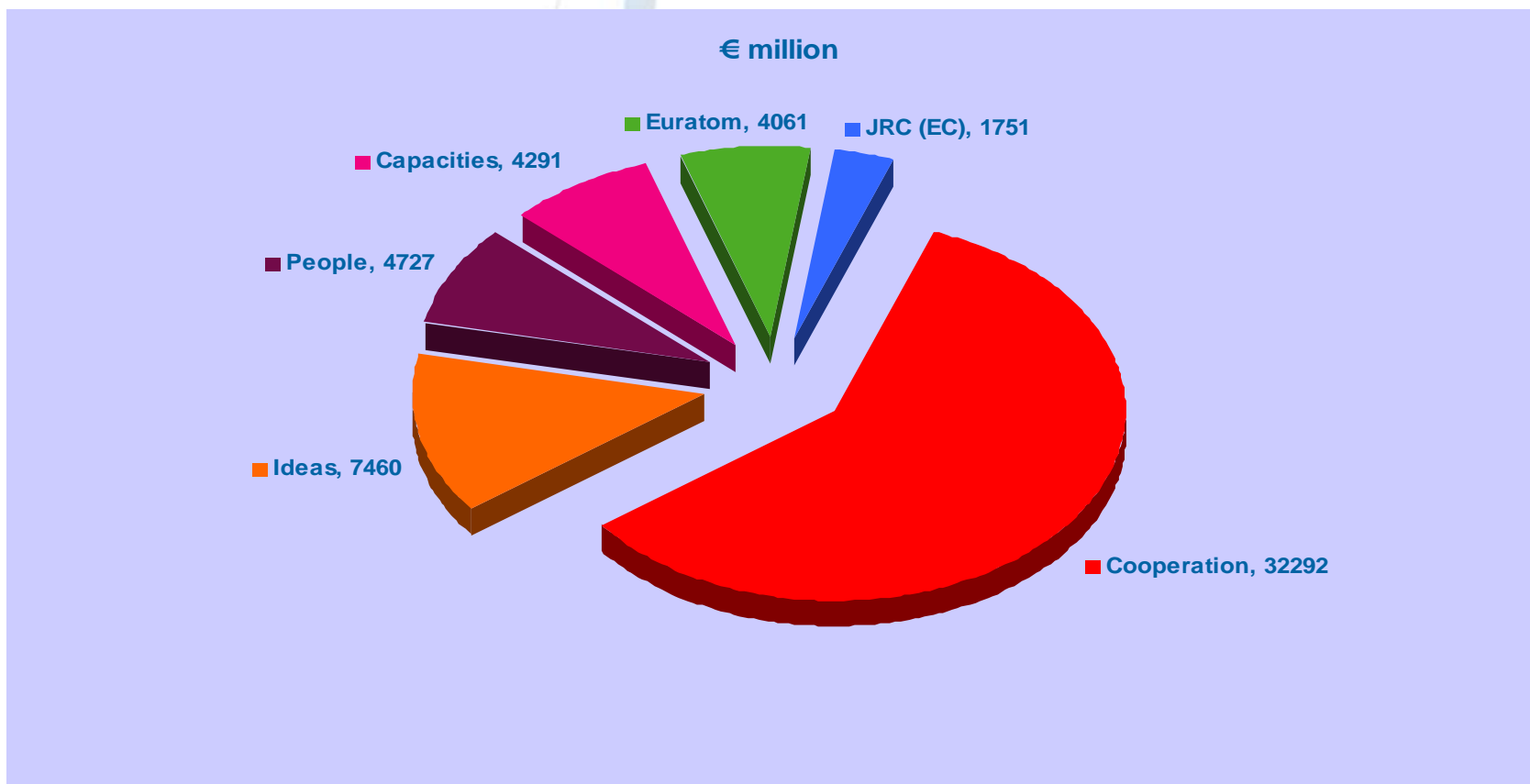
Main new elements compared to FP6:

- **Duration** increased from 5 to 7 years
- Significant annual **budget increase (60% 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



FP7 budget 2007-2013

(€ 54 582 million, current prices)





Significantly increased FP7 budget : € 54.6 Billion

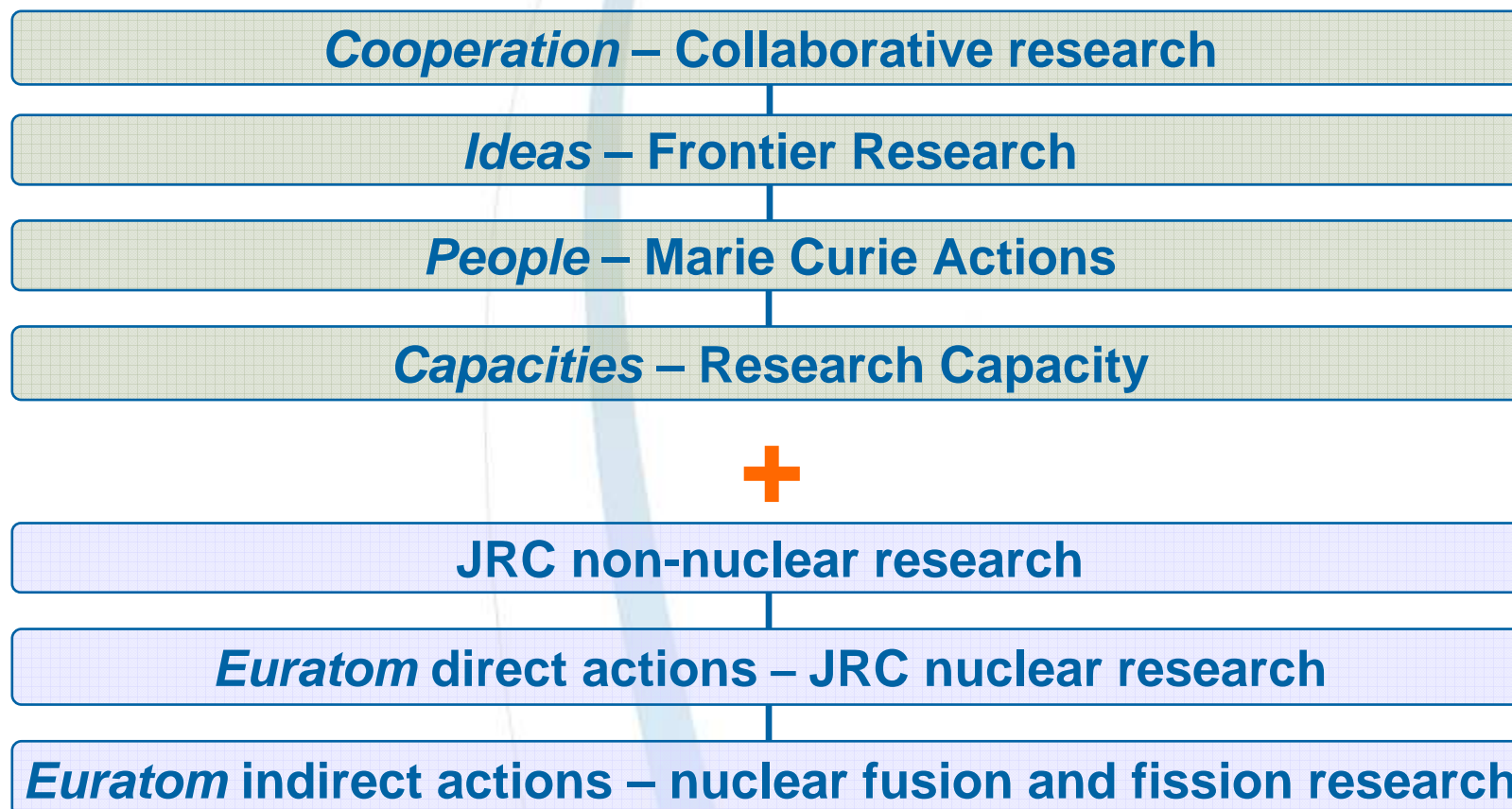
Challenge/opportunity to University Management:

- How to make the best of the increased resources available?



FP7 2007 –2013

Specific Programmes





FP7 Specific Programmes (2007 – 2013)



Challenge/opportunity to University Management:

- How to best address the broader range of programmes?



Cooperation – Collaborative Research



Nine themes

1. Health
2. Food, agriculture and biotechnology
3. Information and communication technologies
4. Nanosciences, nanotechnologies, materials and new production technologies
5. Energy
6. Environment (including climate change)
7. Transport (including aeronautics)
8. Socio-economic sciences and the humanities
9. Security and space
- + Euratom: Fusion energy research, nuclear fission and radiation protection



Cooperation – Collaborative Research (1)

- 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
- Support will be implemented across all themes through...



Cooperation – Collaborative Research (2)

- 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



COOPERATION



Challenge to University Management:

- Identify University's research strengths
- Capitalise on interdisciplinarity
- Link up with appropriate partners



Joint Technology Initiatives

**Hydrogen
and Fuel Cells**

**Aeronautics and
Air Transport**

**Global Monitoring
for Environment
and Security**

Innovative Medicines

**Embedded Computing
Systems**

Nanoelectronics

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

More on Technology
Platforms and JTI





Joint Technology Initiatives

Challenge/opportunity to University Management:

- Industry led
- Novel structure
- How to best interface and participate?
 - ✓ Identify corresponding European Technology Platform (ETP)
 - ✓ Contribute to elaboration of Strategic Research Agenda
 - ✓ Participate in its various functions/bodies



Ideas – Frontier Research (1)

- Frontier Research is a key driver to innovation and economic performance
- Establish European Research Council (ERC) – the first pan-European funding agency for Frontier Research
- Support investigator-driven frontier research over all areas of research
- European added-value through competition at European level



Ideas – Frontier Research (2)

- Budget ~ €1bn p.a. (2007-2013 ~ €7.46)
- Autonomous scientific governance (Scientific Council)
- Support projects of individual teams
- Excellence as sole criterion
- Simple, user-friendly



Ideas – Frontier Research (3)

- ERC Launch Strategy provides for two streams of funding activities starting in 2007:
 - ERC Starting Independent Researcher Grant scheme (ERC Starting Grant)
 - ERC Advanced Investigator Researcher Grant scheme (ERC Advanced Grant)

More on Ideas





ERC

Challenge/opportunity to University Management:

- **Compete at European level**
 - ✓ Sharp benchmark
- **Great flexibility**
 - ✓ From single researcher to trans-national team
- **Handle new type of grant (“Individual project”)**
 - ✓ Grant agreement with host institution only



People – Marie Curie Actions

- Initial training of researchers
 - Marie Curie Networks*
- Life-long training and career development
 - Individual Fellowships
 - Co-financing of regional/national/international programmes
- Industry-academia pathways and partnerships
 - Industry-Academia Knowledge-sharing Scheme*
- International dimension
 - Outgoing & Incoming International Fellowships
 - International Cooperation Scheme
 - Reintegration grants;
 - Support to researcher 'diasporas'
- Specific actions
 - Mobility and career enhancement actions
 - Excellence awards

* Open to third-country nationals

More on Marie
Curie Actions





Capacities – Research Capacity

1. Research Infrastructures
 - (C/O): New research opportunities
2. Research for the benefit of SMEs
3. Regions of Knowledge
 - (C/O): Become active regional players
4. Research Potential
 - (C/O): Capacity building in convergence regions
5. Science in Society
 - (C/O): Contribute to linking society to science and vice versa
6. Coherent development of policies
7. Activities of International Cooperation
 - (C/O): Horizontal component/decentralised (Thematic) component



Marie-Curie Actions

Challenge/opportunity to University Management:

- Continue to profit from the scheme
- Exploit fully new possibilities



Management



Increased FP budget

+ No increase in Commission staff



- Need new structures to manage the increase
- 'Externalise' part of the FP management to executive agencies for the first time

More on Management





Externalisation

Challenge/opportunity to University Management:

- **Dedicated structure**
 - ✓ Evaluation
 - ✓ Payments
- **Better “service”**
 - ✓ Streamlined
 - ✓ Coherent across whole FP
- **Separation of political/administrative departments**
 - ✓ Different interlocutors



Simplification of procedures



- Objectives:
 - Eliminate procedures, rules and requests with no added value
 - Cut the number of requests to participants
 - Avoid red tape and increase user-friendliness
 - Reduce delays
- Principles:
 - Rationalisation of all procedures
 - Communication
 - Strike a new balance between risk and control to provide
 - Greater trust
 - Increased risk-taking

More on Simplification





Simplification

Challenge/opportunity to University Management:

- Live with two systems in transition period

- Make the best of proposed simplification
 - Understand thoroughly
 - Provide feed-back for improvements



Funding Schemes, General principles

- **FP6:** new instruments
 - Structure research efforts
 - Overcome fragmentation

- **FP7:** flexible use of funding schemes
 - Alone or in combination
 - Fund actions throughout the Framework Programme



Funding Schemes



- Collaborative projects
 - Consortia with participants from different countries
 - New knowledge, technology, products or common resources for research
 - Size, scope and internal organisation of projects can vary
- Networks of Excellence
 - Joint programmes by organisations integrating activities in a given field
 - Longer term co-operation
 - Formal commitment to integrate resources



Funding Schemes (continued)

- Coordination and support actions
 - Networking, exchanges, trans-national access to research infrastructures, studies, conferences, etc.
- Support for Frontier Research
- Training and career development of researchers
- Research for the benefit of specific groups (in particular SMEs)
- Generally based on calls for proposals



Funding Schemes (continued)



- Large-scale multi-financed initiatives
 - Joint implementation of national research programmes: Article 169
 - Joint Technology Initiatives: Article 171
 - New infrastructures of European interest



Funding Schemes

Challenge/opportunity to University Management:

- Understand philosophy
 - Less rigid than FP6 instruments
 - Read Work Programmes carefully
- Train your administrators and researchers
 - As soon as possible



General funding principles

Forms of grants

- Reimbursement of eligible costs
- Flat rates: a percentage or a scale of units
- Lump sum amounts
- Combination is possible

Cost reporting models eliminated

- Participants charge direct (and indirect) costs
- For indirect costs flat rate is always option

Co-financing, no profit



Maximum funding rates



- Research and technological activities: 50% of eligible costs except for:
 - Public bodies: 75%
 - **Secondary and higher education establishments: 75%**
 - Research organisations (non-profit): 75%
 - SMEs: 75%
- Demonstration activities: 50% of eligible costs
- Other activities: 100% including e.g. management, dissemination
- Frontier research actions, coordination and support actions, training and career development of researchers actions: 100%
- Receipts are taken into account to determine the final Community financial contribution



Lump sums

- Can be used for the whole of the project or for part of it
- Will depend on characteristics and objectives of actions
- Are established by the Financial Regulation and implementing rules – per category/per beneficiary
- A specific lump sum is identified for Networks of Excellence (NoEs) (€ 23,500 / year / researcher) (payment based on progress)
- Lump sums do not require justification of eligible costs or certification of same



Flat rate financing

- Flat rates can be used for **indirect costs** (as a % of other costs e.g. all direct costs or some specific category)
- Flat rates for indirect costs could vary from one type of funding scheme to another
- Flat rates as **scales of unit for personnel costs, equipment** etc.
- Flat rates **do not require justification of real costs or certification of same**



Financial regime

Challenge/opportunity to University Management:

- Life after “Additional Costs”
 - Much better than you thought!
- Make wise use of transitional regimes, if necessary
- Work actively for transition to full cost accounting
 - Good for you
 - FP8 not so far away!



Risk Management

Financial default of a participant

- No collective financial responsibility within a consortium
- Commission to assess risk of default and may establish a mechanism/fund to cover financial loss ("Guarantee Fund")



Risk management

Challenge/opportunity to University Management:

- Advantages even for public universities
 - "Insurance" for S&T responsibility in case of defaulting partner
- It will require some kind of temporary contribution



FP7 synergies



Strong synergies with other EU Programmes

- The Structural and Cohesion Funds
- The Competitiveness and Innovation Programme (CIP)
- Education and training Programmes
- Trans-european Networks
- European Institute of Technology (EIT)

Mission and objectives of the EIT system

Innovation

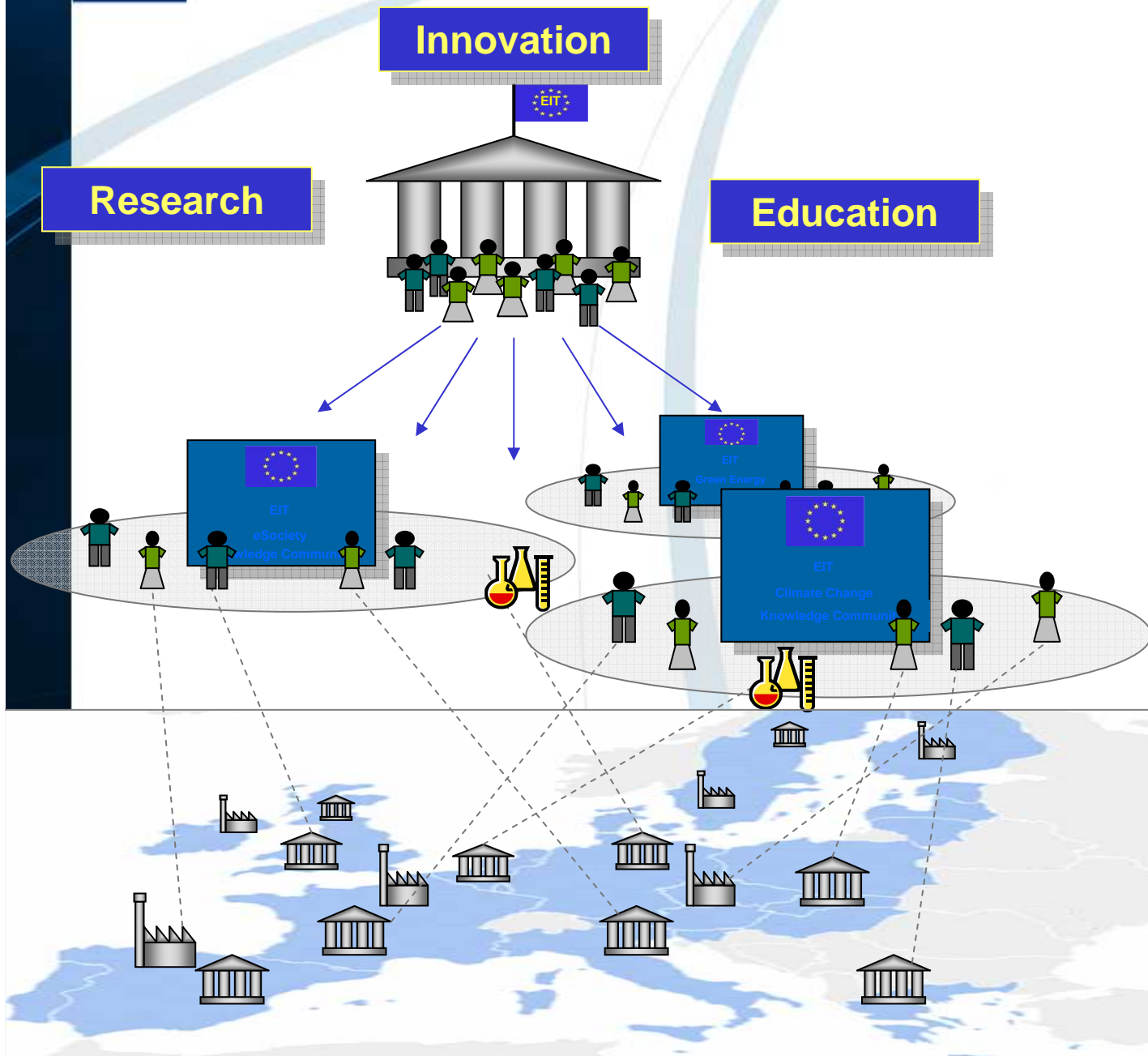
Research



Education

- *To perform postgraduate education and research and convert them into commercial opportunity*
- *To develop research and innovation management skills*
- *To attract researchers and students world wide*
- *To show that new organizational and governance models can work*

The EIT Structure



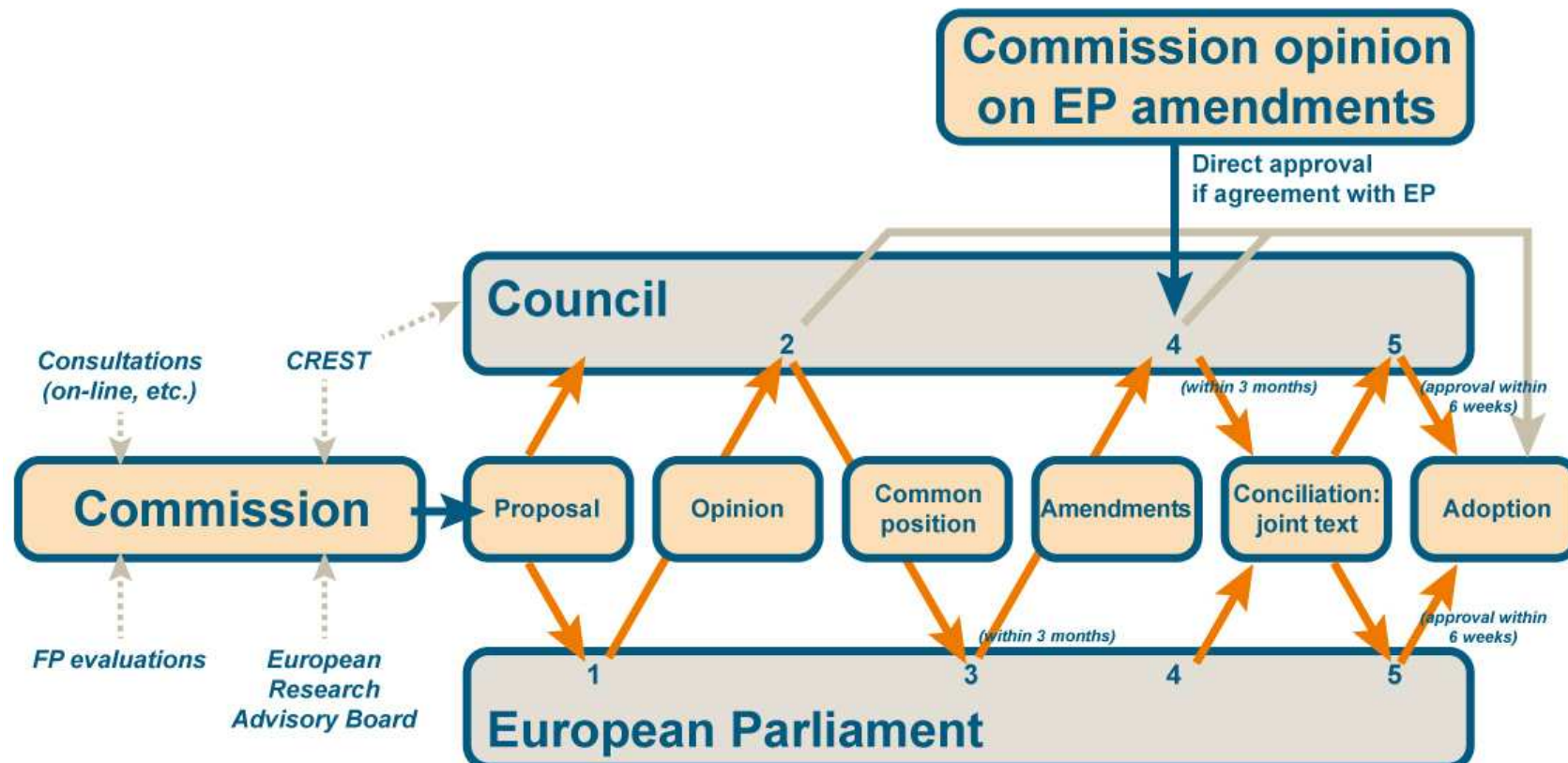
The Central
Core /
Governing
Board

Knowledge and
Innovation
Communities

Partner
organizations



Towards the Seventh Framework Programme 2007-2013 ('co-decision')



Council decides by qualified majority except on EP amendments not approved by the Commission



FP7 Timetable



April 2005	Commission's proposal
September 2005	Specific programmes' proposal
June 2006	First reading at EP
September 2006	Common position at Council
November 2006	Second reading and approval at EP
December 2006?	Adoption
Dec. 2006/Jan. 2007	First calls for proposals
February 2007	Launch conference



Information



- EU research:
<http://ec.europa.eu/research>
- Seventh Framework Programme:
<http://ec.europa.eu/research/fp7>
- Information on research programmes and projects:
<http://www.cordis.lu/>
- RTD *info* magazine:
<http://ec.europa.eu/research/rtdinfo/>
- Information requests:
<http://ec.europa.eu/research/enquiries/>

