



EU-funded research

FP7
Tomorrow's answers start today



Why research at European level?

- Pooling and leveraging resources
 - Resources are pooled to achieve critical mass
 - Leverage effect on private investments
 - Interoperability and complementarity of big science
- Fostering human capacity and excellence in S&T
 - Stimulate training, mobility and career development of researchers
 - Improve S&T capabilities
 - Stimulate competition in research
- Better integration of European R&D
 - Create scientific base for pan-European policy challenges
 - Encourage coordination of national policies
 - Effective comparative research at EU-level
 - Efficient dissemination of research results



R&D – Europe's challenges



	EU-25	US	Japan
R&D intensity (% of GDP) (2004)	1.86	2.66	3.18
Share of R&D financed by industry (%) ⁽¹⁾	54.8	63.7	74.8
Researchers (FTE) per thousand labour force ⁽²⁾	5.5	9.1	10.1
Share of world scientific publications (%) (2003)	38.3	31.1	9.6
Scientific publications per million population (2003)	639	809	569
Share of world triadic patents (%) (2000)	31.5	34.3	26.9
Triadic patents per million population (2000)	30.5	53.1	92.6
High-tech exports as a share of total manufacturing exports (%) (2003)	19.7	28.5	26.5
Share of world high-tech exports (%) (2003)	16.7	19.5	10.6

Data: Eurostat, OECD.

Source: DG Research

Notes: ⁽¹⁾ EU-25: 2003; US, JP: 2004. ⁽²⁾ EU-25: 2004; US: 2002; JP: 2003.

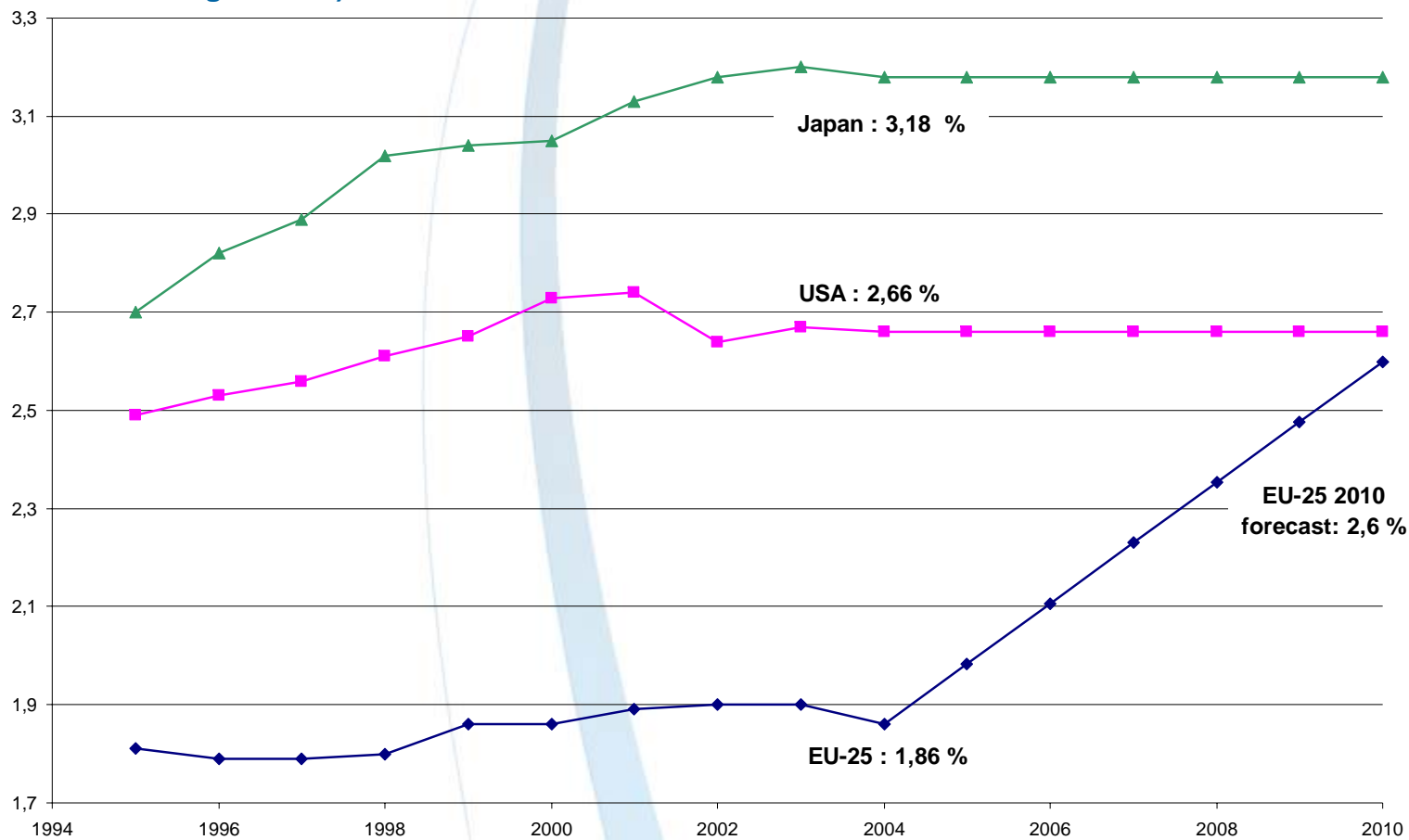


Research: filling the gap

(total expenditure on R&D as % of GDP, 2004)



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

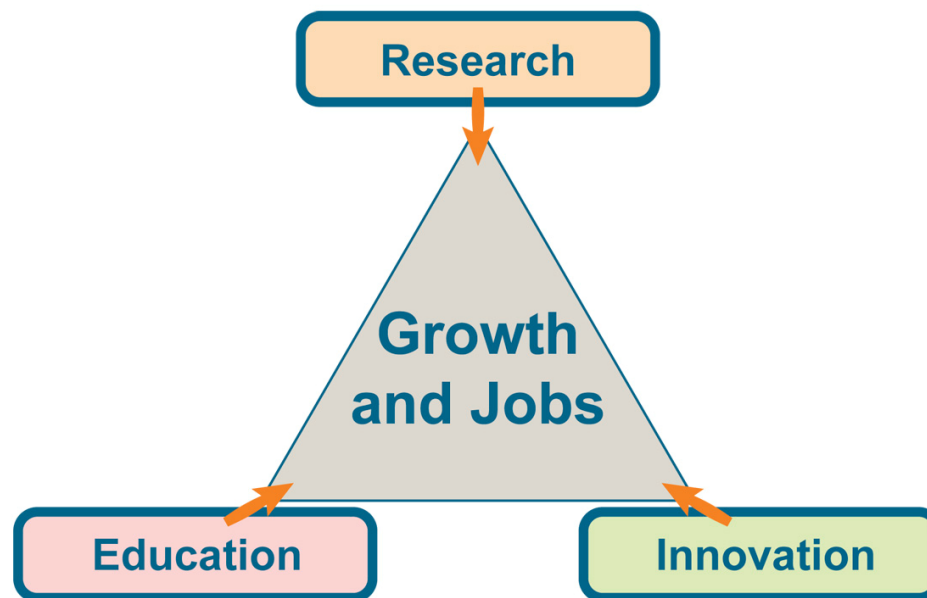


Data: Eurostat, OECD.

Source: DG Research



Lisbon strategy



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



FP impact on S&T and the economy

- Economic benefits

€1

(research)
at European level



€4-7

(long-run, econometric models)

- Reduced commercial risk

- increased turnover and profitability
- enhanced productivity and market share

- Innovative performance

- Enterprises participating in FP:

- tend to be more innovative
- more likely to patent
- co-operate with other firms and universities



FP impact on S&T and the economy (published results / mobility & training)

- Scientific performance:
 - FP project → up to nine peer-reviewed publications (international co-publications)

- Human resources development:
 - over 7 000 proposals for Marie Curie actions (mobility, training) in 2004, thousands of researchers have participated in top transnational teams, benefiting from training and knowledge sharing



FP impact on integration of the ERA (European Research Area – ERA)

- 180 000 co-operation links (FP5):
 - academia, industry, public research labs
- Better coordination of national research efforts (ERA-NET, etc.)
- Counter-acting fragmentation of ERA
 - Average number of Member States per project:
3 (FP2) → 6.7 (FP6)



FP impact on integration of the ERA (more participants involved to reach critical mass)

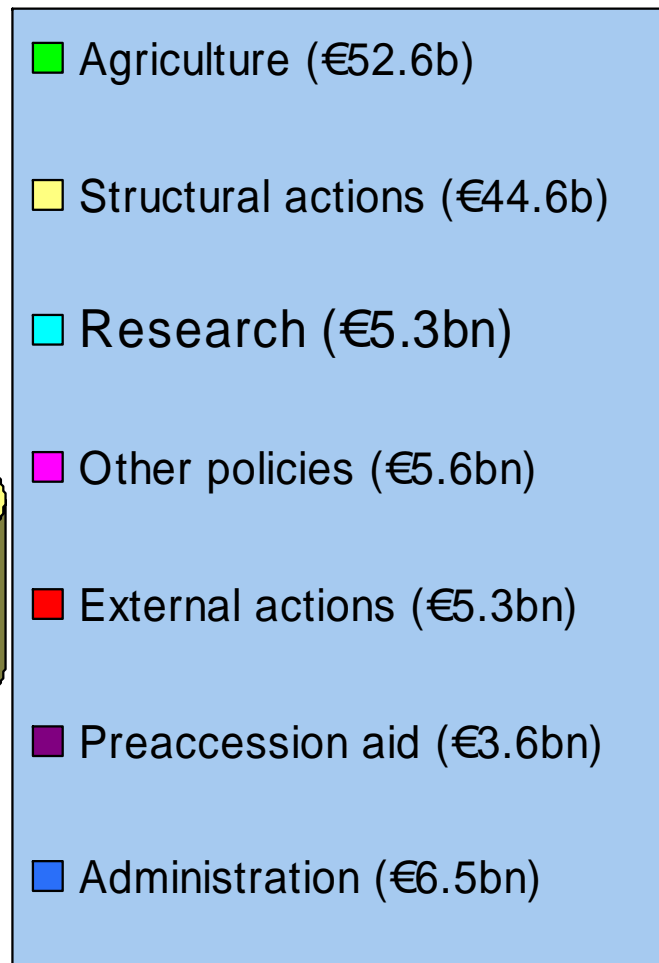
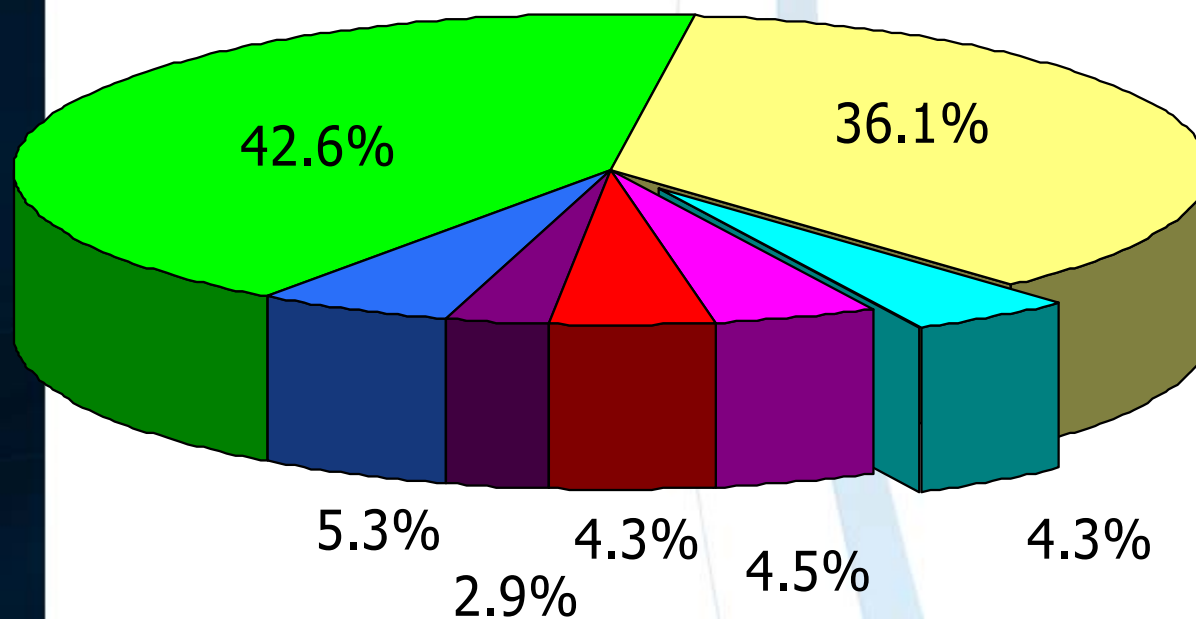
- Concentration of research efforts through larger projects with critical mass
 - Average number of participants per project:
4.7 (FP2) → 14 (FP6)
 - Average EU funding per project:
€1.2 million (FP2) → €4.6 million (FP6)
- Top-level scientists: e.g. six Nobel prize-winners involved in FP6 fundamental genomics projects
- ERA more attractive to researchers worldwide.
 - Number of participating countries from across the world:
30 (FP2) → 140 (FP5)



EU budget 2006: €5.3 billion for research



€ 123.5 billion expenditure
(commitments)



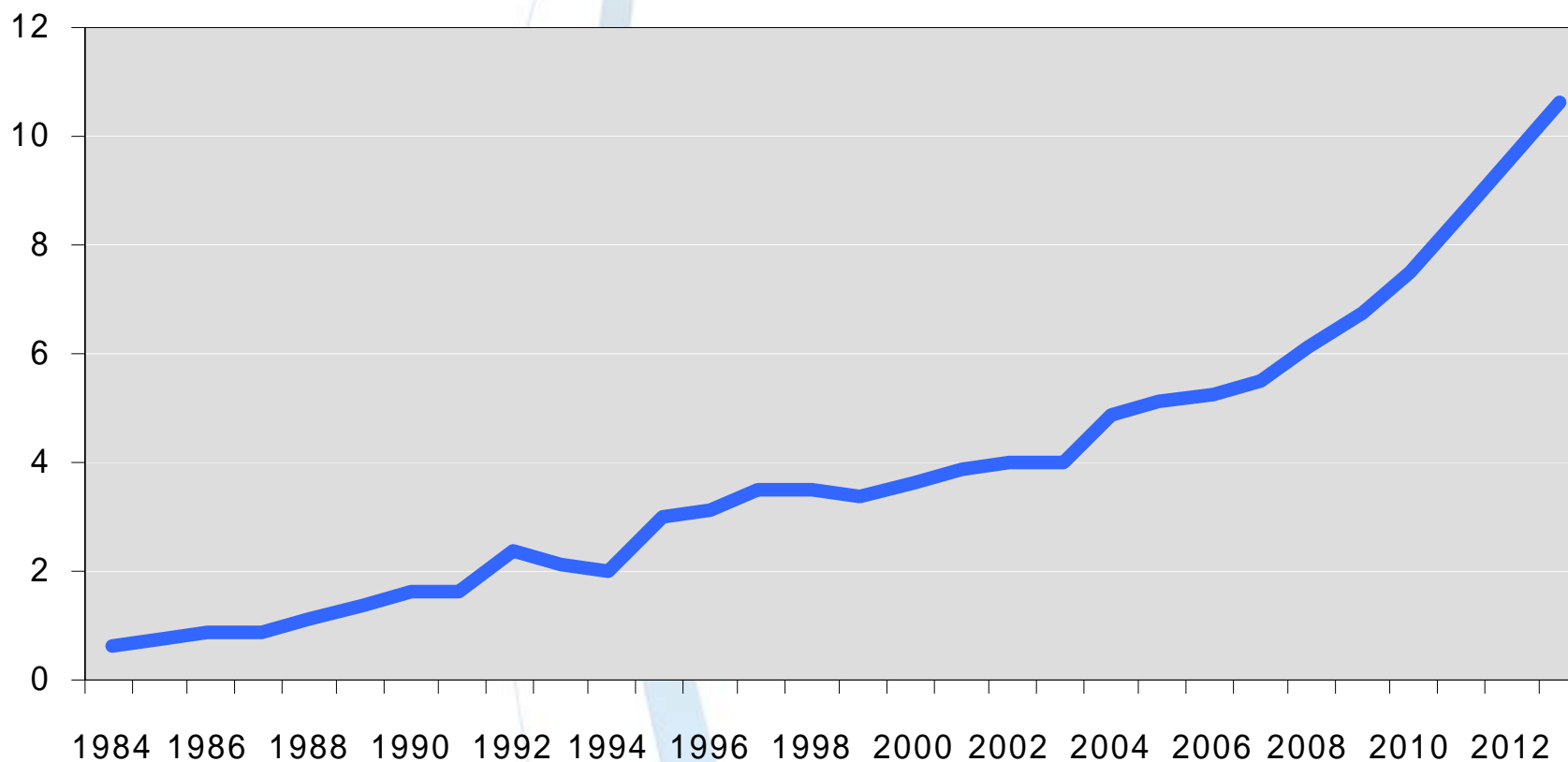
Source: "EU Budget - The figures" EU COM, Jan. 2006, ISBN 92-79-01144-8



EU Research Framework Programmes

Annual Budgets between 1984 and 2013

€billion



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



The EU's Seventh Research Framework Programme (FP7, 2007-2013)



- FP7 is short for:
Seventh Framework Programme for Research and Technological Development
- It is the **European Union's** main instrument for **funding research** in Europe between 2007 and 2013
- FP7 supports research in **selected priority areas**
- It represents a **41% budget increase from FP6** at 2004 prices



FP7 – What's new?

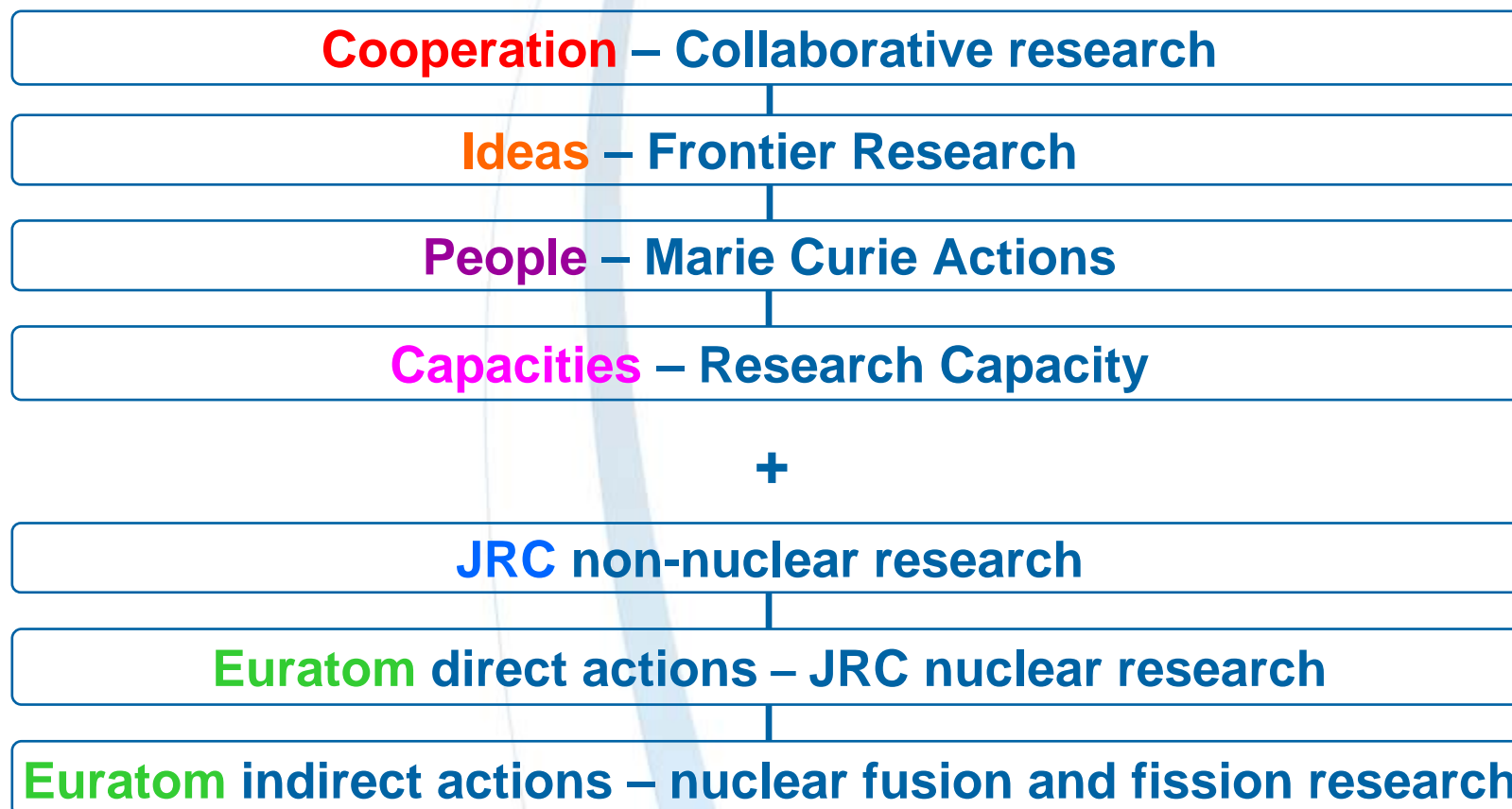


Main new elements compared to FP6:

- Duration increased from 5 to 7 years (except for Euratom FP)
- Annual **budget increased** significantly
- New structure: **Cooperation**, **Ideas (ERC)**, **People**, **Capacities**, **Euratom** and **JRC** activities
- Basic research (~ €1 billion per year): **European Research Council**
- Funding of **research infrastructures**
- **Flexible** funding schemes
- **Simpler** procedures

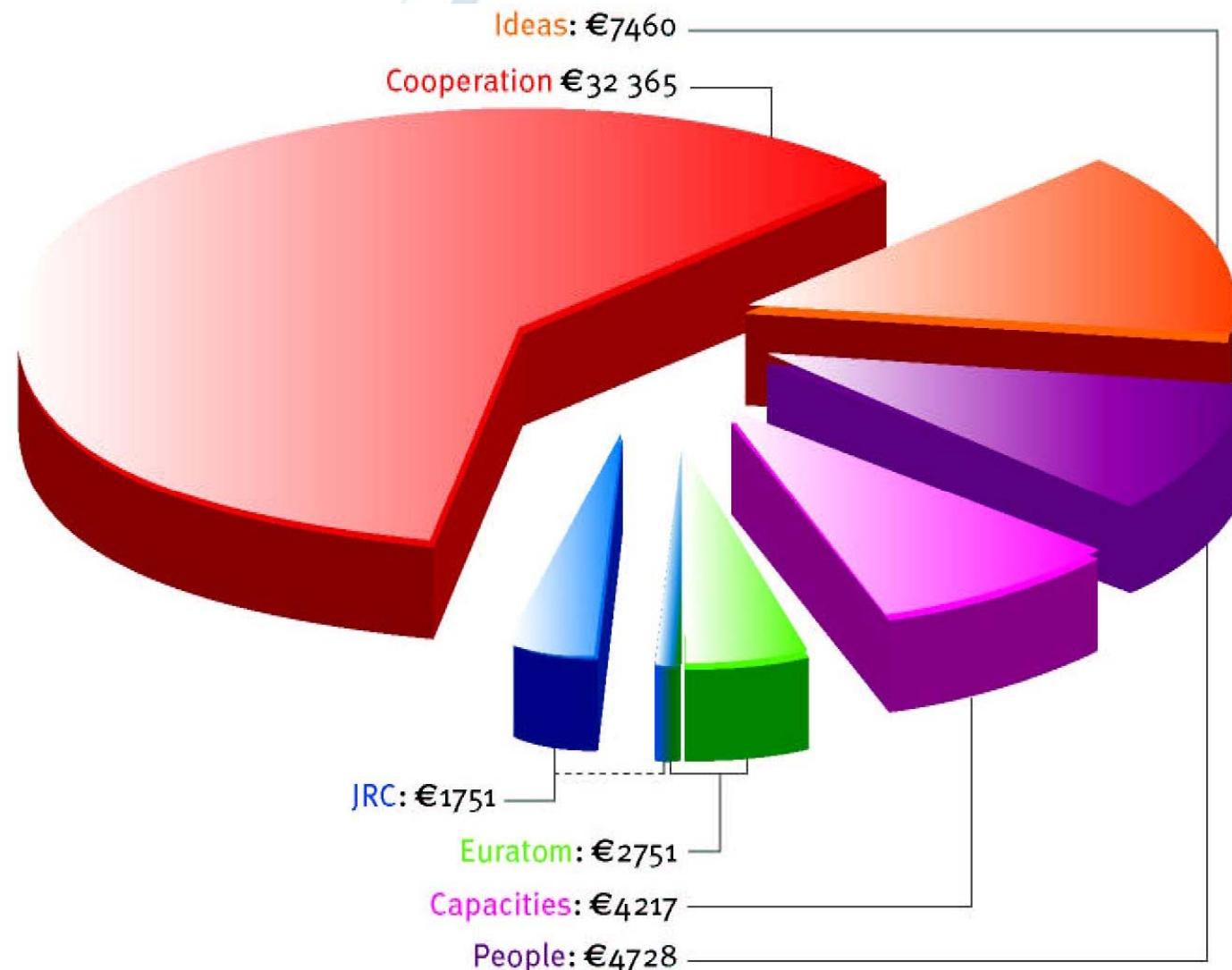


FP7 (2007-2013) | The Structure





FP7 – Indicative breakdown (€million)





FP7 | Cooperation

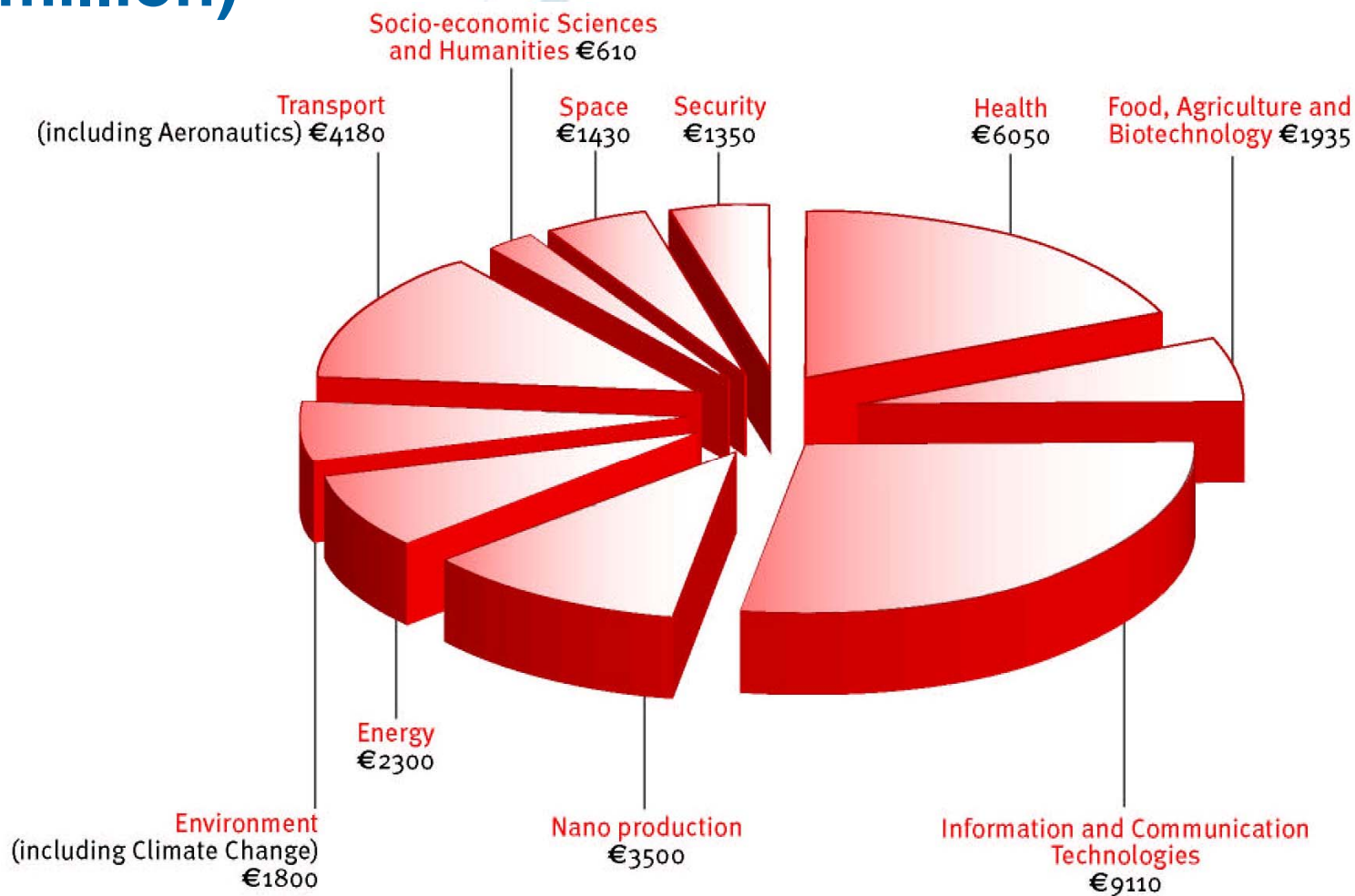


bringing together our best talents from across Europe (**researchers, industry and SMEs**) to tackle the following areas:

- Health;
- Food, Agriculture and Biotechnology;
- Information and Communication Technologies;
- Nano-sciences, Nano-technologies, Materials and new Production Technologies;
- Energy;
- Environment (including Climate Change);
- Transport (including Aeronautics);
- Socio-economic Sciences and Humanities;
- Space;
- Security.



Cooperation programme - thematic areas (€million)





FP7 | Ideas conducting Frontier Research- The European Research Council (ERC)

- Frontier (“basic”) Research is a key driver to innovation and economic performance
- establish the **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**
- budget ~ **€1 billion per year** (2007-2013 ~ €7.46 billion)
- autonomous scientific governance (Scientific Council)
- support projects of individual teams
- excellence as sole criterion



FP7 | People

Marie Curie Actions- Fellowships, Grants, Awards

- **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** & **excellence**
 - Mobility and career enhancement actions
 - Excellence awards

* Open to third-country nationals



FP7 | Capacities offering excellent infrastructures to conduct research



- Research infrastructures
- Research for the benefit of SMEs
- Regions of Knowledge
- Research Potential
- Science in Society
- Coherent development of policies
- Activities of International Cooperation



Simplification of procedures

- Objectives:
 - Eliminate procedures, rules and requests with no added value
 - Cut the number of requests to participants
 - Cut 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



Simplifying every step

- Calls for proposals
- Submitting a proposal
- Evaluations and selection
- Negotiation and award
- Life of the project
- Cross-cutting issues





Simplification of calls for proposals



- **Succinct** publication in Official Journal (OJ)
- Improved CORDIS **presentation**
- **Clear** policy approach
- Work programmes and calls for proposals will be adopted at the **same time** each year.



Simplification of submission procedures



- Proposal submission system based on FP6
 - further improvements later
- New Unique Registration Facility
- New Guide for Applicants
 - and streamlined background documents
- Central helpdesk
 - with “ticketing”, monitoring and reporting
- Rules for submission, evaluation etc streamlined and clarified



Promoting the participation of small medium enterprises (SMEs)

- Throughout FP7, SMEs will actively be encouraged to get involved (especially under the **Cooperation** programme) and Joint Technology Initiatives (JTIs) when appropriate
- A funding rate of 75% for research and development activities of SMEs
- A guarantee fund which would cover the financial risks of project participants



Risk-sharing finance facility: budget and procedures

- Budget from FP7 'Cooperation' and 'Infrastructure' budget lines
- Risk-sharing with European Investment Bank (EIB) to allow
 - larger volume of EIB lending
 - financing of riskier projects by EIB
- Improve access to EIB loan finance
- FP7 funding + EIB funds → reserve to cover risk of EIB lending
- Maximum contributions decided in specific programmes
- Leverage effect → extra lending by EIB = **3-4 times** EU funds allocated



More Information

- **European Research Portal:**
www.ec.europa.eu/research
- General information on the **Seventh EU Research Framework Programmes:**
www.ec.europa.eu/research/fp7
- **Specific information** on research programmes, projects and FP7 Call documents:
www.cordis.europa.eu/fp7
- General **information** requests:
www.ec.europa.eu/research/enquiries

