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The EU's new Research Framework Programme 2007-2013: FP7



1st Thematic workshop of the FP6 RTD project
NORMAN
« Chemical Analysis of Emerging Pollutants »
27-28 November 2006
Maó, Menorca, ES

Comisión Europea
DG Investigación
Elena Domínguez

27-11-2006





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R&D – European weaknesses

	EU-25	US	Japan
R&D intensity (% of GDP) ⁽³⁾	1.97	2.59	3.12
Share of R&D financed by industry (%) ⁽²⁾	55.9	63.1	73.9
Researchers per thousand labour force (FTE) ⁽³⁾	5.5	9.0	9.7
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	20.0	10.6

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



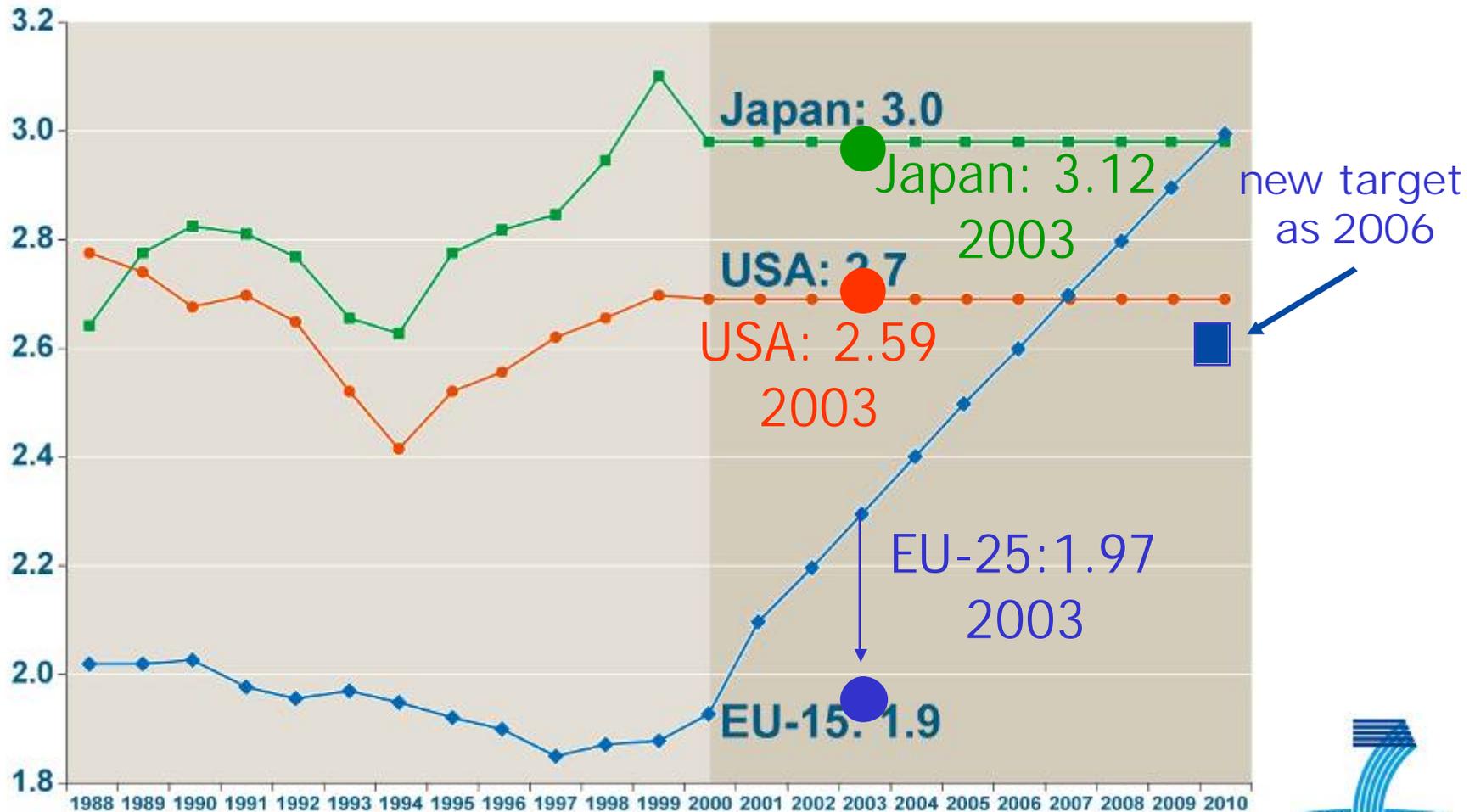


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Research: filling the gap

Total expenditure on R&D, % of GDP –
Barcelona Summit, 2001





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What's new?

- Main new elements compared to FP6:
 - Duration increased from five to seven years
 - Total budget doubled (€50.5 billion)
 - Basic research (~ €7.5 billion)
 - New structure: cooperation, ideas, people, capacities
 - Flexible funding schemes
 - Joint Technology Initiatives
 - Simpler procedures
 - Logistical and administrative tasks → external structures

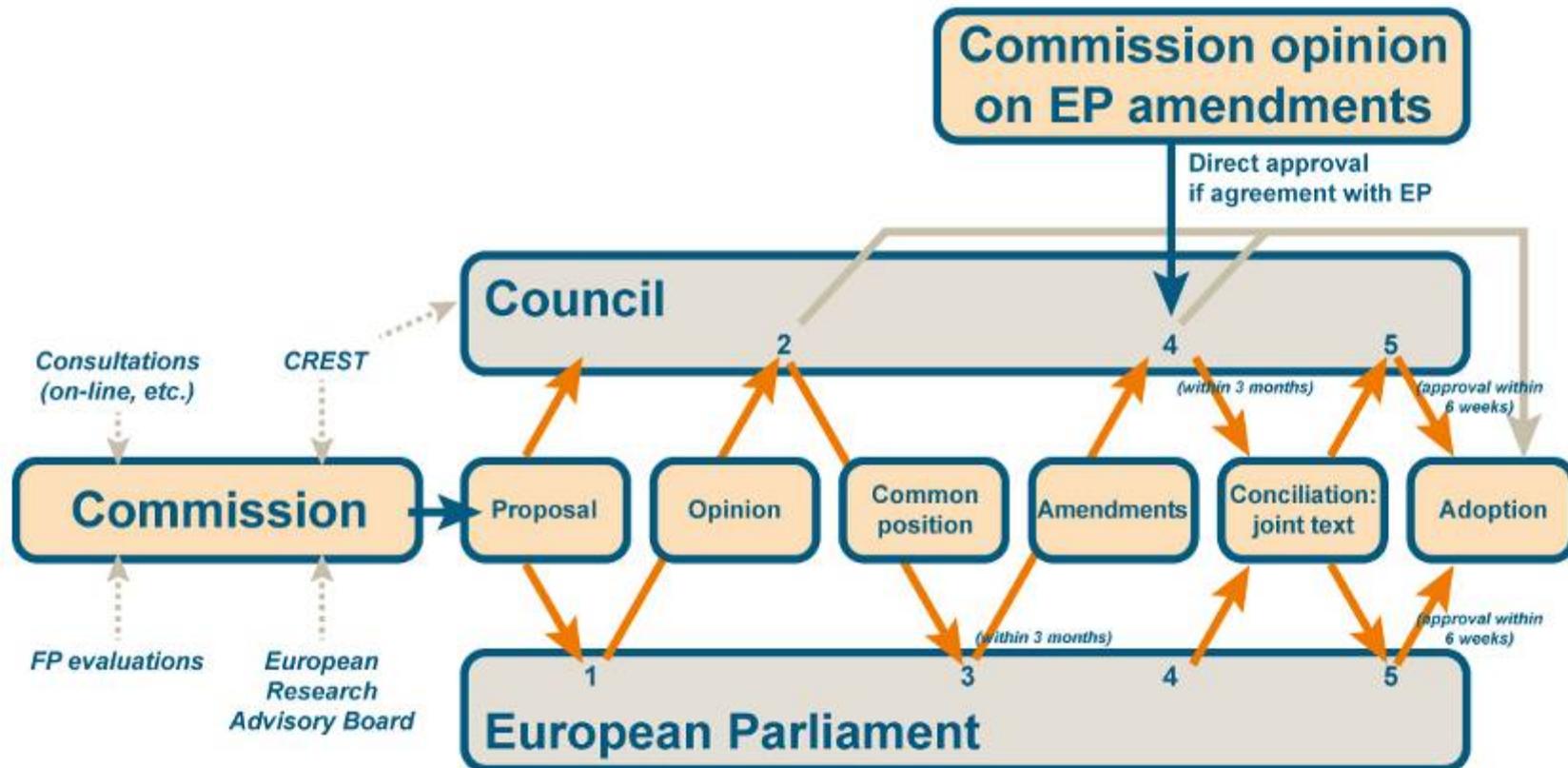




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Towards the Seventh Framework Programme 2007-2013 ('co-decision')



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



SEVENTH FRAMEWORK
PROGRAMME



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FP7 2007 –2013

What to read and when

- Procedures for adoption
 - Framework Programme: Co-decision by Council and Parliament (EC Treaty)
 - Specific Programmes: Council Decisions (EP opinion)
- Key documents
 - Framework Programme: Commission proposal 6 April 2005
 - Specific Programmes: Commission proposals 21 September 2005
 - Working programmes: Commission proposals (AG, PC)





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What to read and when

	
COUNCIL OF THE EUROPEAN UNION	Brussels, 17 October 2006
	DS733/06

Presidency Working Document¹

DECISION No .../2006/EC
OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of

concerning the Seventh Framework Programme
of the European Community for research, technological development
and demonstration activities (2007-2013)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty establishing the European Community, and in particular Article 166(1) thereof,
Having regard to the proposal from the Commission,
Having regard to the opinion of the European Economic and Social Committee²,
Having regard to the opinion of the Committee of the Regions⁴,
Acting in accordance with the procedure laid down in Article 251 of the Treaty³,

¹ Changes to the Common Position (doc. 12032/06) are **bold underlined**. Changes following the meeting with the European Parliament on 12 October 2006 are **highlighted** and appear on pages 4, 9 and 16; in Annex I on pages 3, 17, 23, 26, 38, 40, 51 63, 68-70 and 93; in Annex II on pages 1 and 2; and in Annex III on page 2.

² P.M. the European Parliament approves the setting up of the Risk Sharing Finance Facility but wishes to consider further its implementing provisions. The European Parliament is also considering putting forward a statement on the envisaged European Institute of Technology.

³ OJ C 65, 17.3.2006, p. 9.

⁴ OJ C 115, 16.5.2006, p. 20.





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FP7 2007 –2013

What to read and when

- 1st call for proposals in FP7:

Opening: 22 December 2006

Closure: 17 April 2007?

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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)

JRC (nuclear)

Euratom



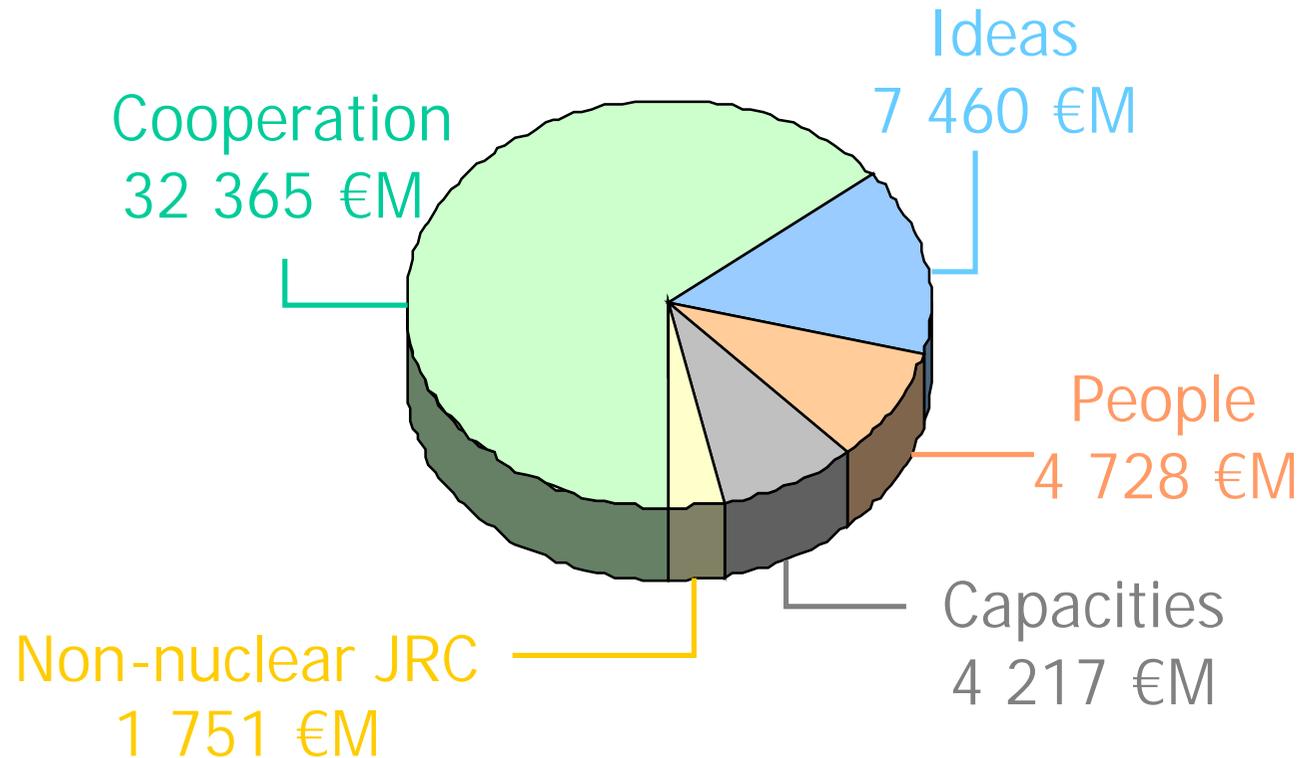
SEVENTH FRAMEWORK
PROGRAMME



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FP7 budget (€ million, current prices)



Total European Community budget for non-nuclear research:
50.52 € billions
EURATOM (2007-2011) 2 751 €M





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FP7 Cooperation programme (collaborative research)

10 Themes

M€

Health	6 100
Food, agriculture and biotechnology	1 935
ICT	9 050
Nanosciences, nanotechnologies, materials & new production technologies	3 475
Energy	2 350
Environment (including climate change)	1 890
Transport (including aeronautics)	4 160
Socio-economic sciences and the humanities	623
Security	1 400
Space	1 430



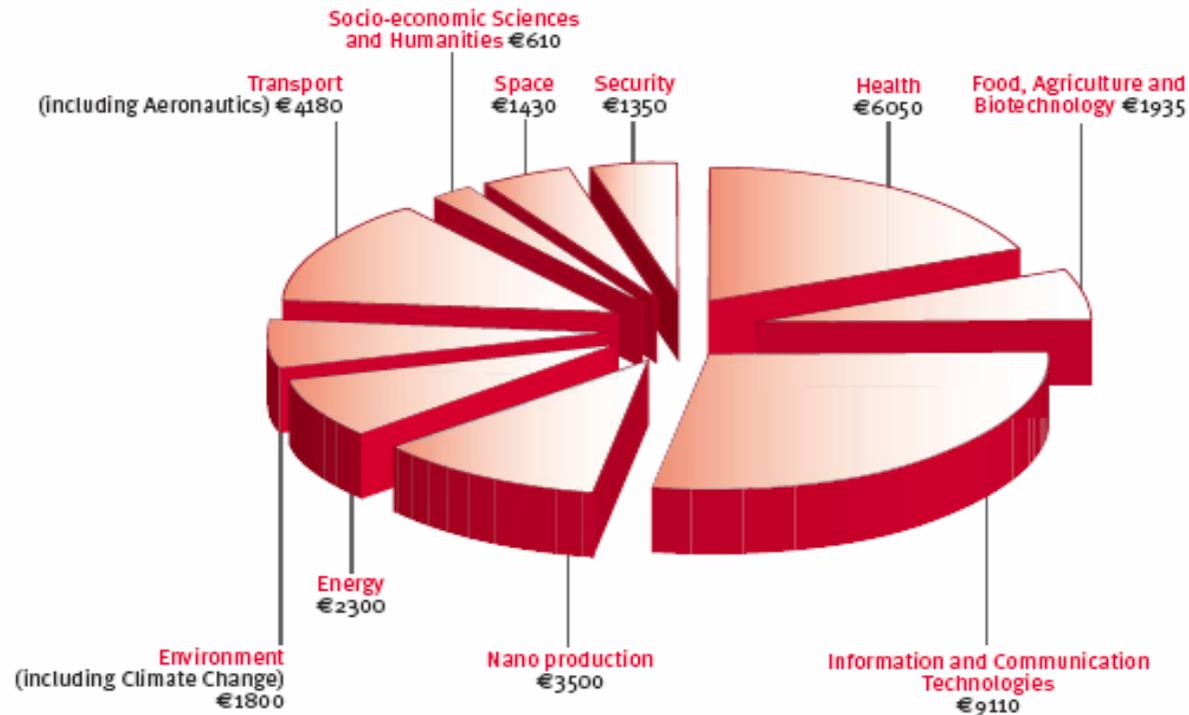


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FP7 Cooperation programme (collaborative research)

The Cooperation Programme breakdown (€ million)

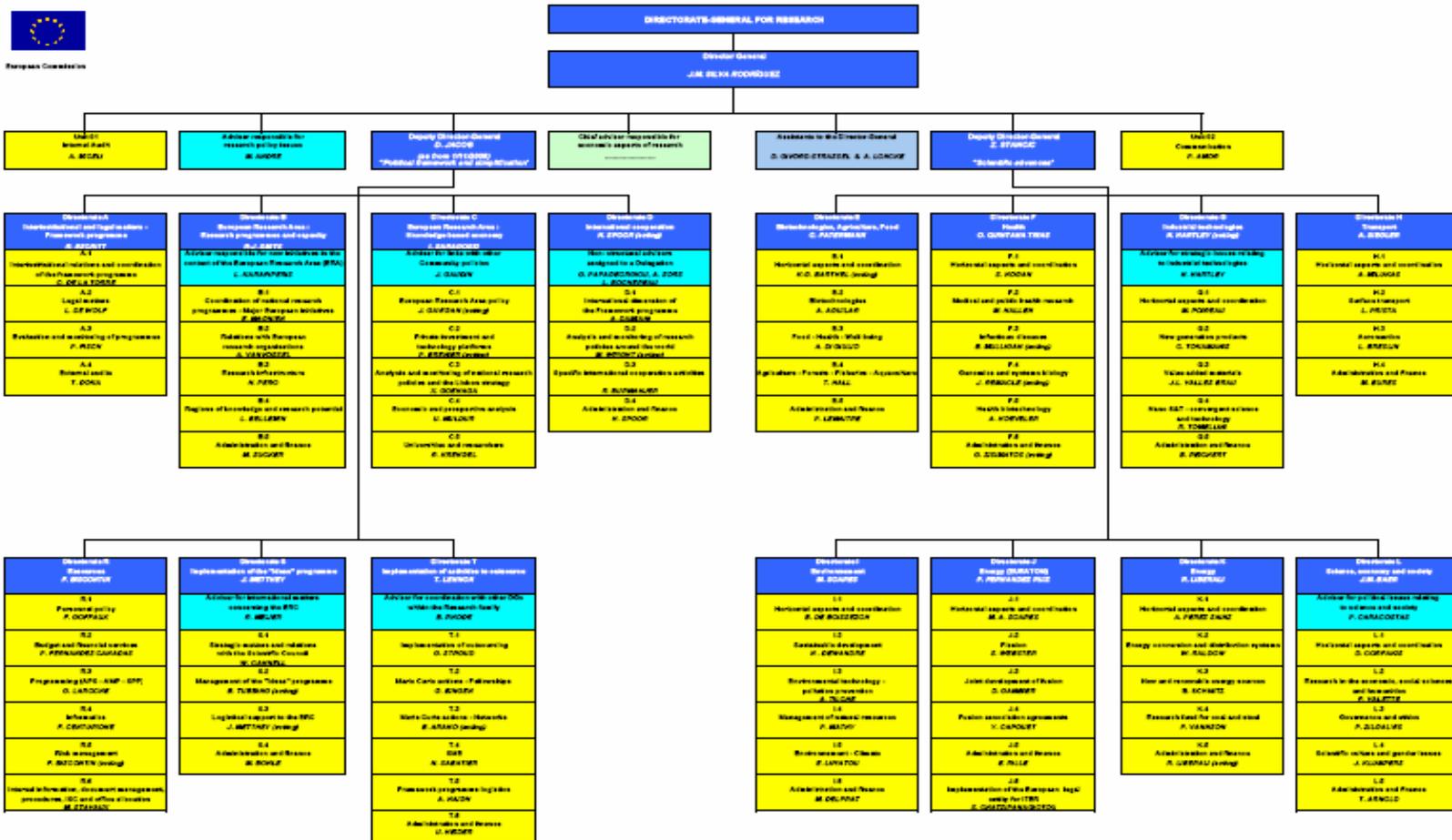




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FP7 and its management organization chart DG RTD



18-03-06
URL: http://ec.europa.eu/research/policies/dg_rtd



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FP7 and its management Collaborative research Working programmes

Directorate I Environment M. SOARES
I.1 Horizontal aspects and coordination <i>B. DE BOISSEZON</i>
I.2 Sustainable development N. DEWANDRE
I.3 Environmental technology - pollution prevention A. TILCHE
I.4 Management of natural resources P. MATHY
I.5 Environnement - Climate E. LIPIATOU
I.6 Administration and finance M. DELPRAT

6. Theme

Environment

6.3. Activity

Environmental Technologies

6.3.1. Sub activity:

6.3.1.1. Area:

6.3.1.1.1.

Topic:





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FP7 Theme 6

Environment: 5 activities (draft)

6.1 Climate Change, Pollution and Risks (~74 M€)

6.2 Sustainable Management of Resources (~51 M€)

6.3 Environmental Technologies (~53 M€)

6.4 Earth Observation and Assessment Tools (~35 M€)

6.5 Horizontal Actions (~3 M€)

Indicative budget (~216 M€)

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FP7 Theme 6

Environment: sub-activities (draft)

6.1 Climate Change, Pollution and Risks

6.1.1: Pressures on the environment and climate (~ 39 M€)

6.1.2: Environment and health (~ 21 M€)

6.1.3: Natural hazards (~ 14 M€)

6.2 Sustainable Management of Resources

6.2.1: Conservation and sustainable management of natural and man-made resources and biodiversity (~ 30 M€)

6.1.2: Management of marine environments (~ 23 M€)

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FP7 Theme 6

Environment: sub-activities (draft)

6.3 Environmental Technologies

6.3.1: Environmental technologies for observation, simulation, prevention, mitigation, adaptation, remediation and restoration of the natural and man-made environment (~41 M€)

6.3.2: Protection, conservation and enhancement of cultural heritage, including human habitat (~7 M€)

6.3.3: Technology assessment, verification and testing (~5 M€)

6.4 Earth Observation and Assessment Tools

6.4.1: Earth and ocean observation systems and monitoring methods for the environment and sustainable development (~22 M€)

6.4.2: Forecasting methods and assessment tools for sustainable development taking into account differing scales of observation (~10 M€)

6.5 Horizontal Actions

6.5.1: Dissemination and horizontal activities

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FP7 Example of research topics (draft)

Sub-activity 6.3.3. Technology assessment, verification and testing

Indicative available budget: 5 M€

Area 6.3.3.1 Risk assessment of chemicals and alternative strategies for testing

] ENV.2007.3.3.1.1 In-silico techniques for hazard-, safety-, and environmental risk-assessment

The objective is to improve in-silico techniques, including Quantitative Structure Activity Relationships (QSAR) models for environmental risk assessment focusing on the eco-toxicological endpoints which are of highest relevance for the Replacement and Reduction of animal use in chemicals safety testing. On the one hand in-silico techniques should be developed and validated as screening tools; on the other hand they should address well defined toxicological end points of relevance for "Intelligent Testing Strategies". (SME-relevant and Policy relevant topic; in collaboration with Theme 1, Health)

Funding scheme: small or medium-scale focused research collaborative projects

Expected Impact: Contribution to the implementation of the REACH regulation through a significant reduction of animal tests in the testing of chemicals.

] ENV.2007.3.3.1.2 Defining a long-term research strategy for the full replacement of animal tests for repeat dose systemic toxicity

In the long run a significant effort should be made to fully replace animals in the testing of chemicals, with focus on the development of alternative methods for the assessment of repeat dose systemic toxicity without compromising safety aspects. This extremely challenging long-term goal needs to be carefully planned through a number of high-level workshops and experts meetings in order to develop the corresponding long-term research programme. (SME-relevant topic; in collaboration with Theme 1, Health)

Funding scheme: Support to action aimed at coordinating or supporting research activities

Expected Impact: This co-ordination action is expected to result in a focused European RTD programme with the long-term goal to phase out animal tests.



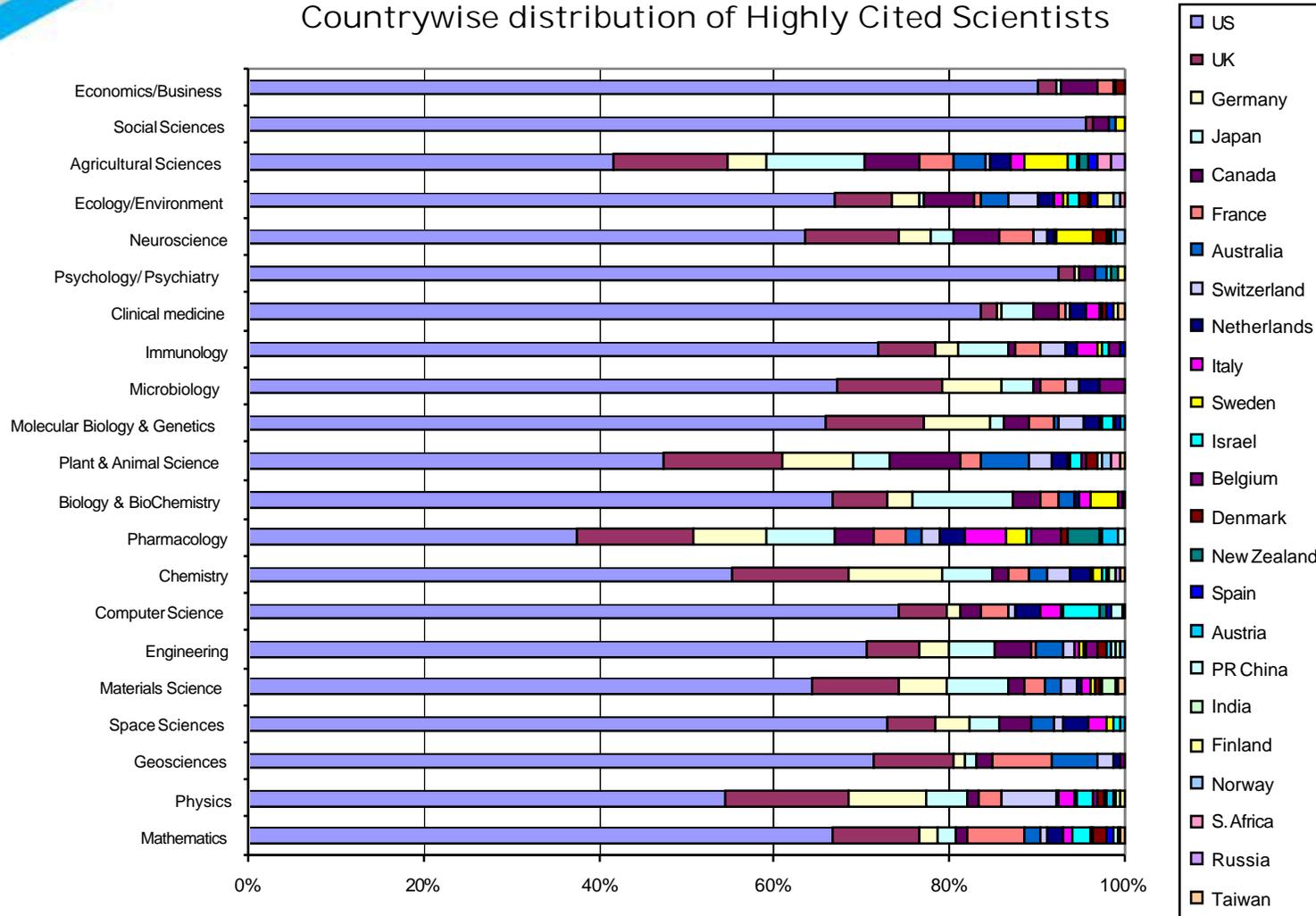


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FP7/ Ideas

Countrywise distribution of Highly Cited Scientists



US scientists dominate in each of the 21 subject areas of science
(Source: Basu, 2004)





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FP7/ Ideas European Research Council

- Frontier research
- Investigator-driven
- Support to individual teams through Europe-wide competition
- Dedicated implementation structure (Executive Agency)
- Governance : Scientific Council





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FP7 / ERC Scientific Council

Role:

- **Establish overall scientific strategy and preparation of work programmes** (incl. calls for proposals, evaluation criteria)
- **Define scientific management:** peer review methodology; selection and accreditation of experts; monitor quality of operations and evaluate programme implementation
- **Assure communication with the scientific community**





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FP7 / ERC

Work Programme / Launch strategy

- Two streams of activity are foreseen which complement other FP7 activities:
 - Early stage independent investigators ("Starting Grants")
 - > 2 < 8 years after PhD
 - up to 5 years project
 - ~ 1/3 of the annual budget:
300-350 M€ per year (200 grants)
 - Established Investigators ("Advanced Grants")

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Starting Grants / Evaluation criteria)

- The potencial of the people and their track record (research excellence of the applicant at the PhD level and subsequently, achievements, publication list
- Excellence of the project:
 - Scientific value
 - Innovativeness
 - Feasibility of objectives sought
 - Methodology proposed
 - Project management
 - Research environment





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FP7 / People Human potential

- 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 Scheme
- International dimension
 - Outgoing International Fellowships; Incoming International Fellowships
 - International Cooperation Scheme; Reintegration grants
- Specific actions
 - Excellence awards





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FP7 / Capacities Research Capacity

- Research Infrastructures
- Research for the benefit of SMEs
- Regions of Knowledge
- Research Potential
- Science in Society
- Activities of International Cooperation
- Coherent Development of Policies





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FP7 / Participation rules

Minimum conditions for participation

- General:
 - 3 independent participants from 3 Members States (MS) or Associated Countries (Ac)
 - Natural persons may participate
 - JRC may participate and is deemed to be from a different MS or Ac
 - Additional conditions can be established by the work-programme or specific programme
- Specific (most relevant):
 - Frontier research actions (ERC) at least one legal entity established in a MS or Ac
 - Coordination and support actions minimum 1 legal entity





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FP7 / Participation rules Funding schemes

- Collaborative projects:
 - Clearly defined scientific and technological objectives
 - Size, scope and internal organisation can vary according to research topic
 - May be targeted to special groups (SMEs)
 - Large, medium, small size
- Networks of excellence:
 - Set of integrating activities, programme of jointly executed research to support the network's goal, set of activities to spread excellence, joint programme of training for researchers and other key staff
- Coordination and support actions
- Individual projects:
 - Investigator-driven "frontier" research





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FP7 / General principles for funding

- 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 cost flat rate is always option
- Co-financing, no profit





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FP7 / Participation rules

Maximum funding rates

- Maximum reimbursement rates
 - Research and technological development 50%
 - but: Public bodies, secondary and higher education bodies, research organisations (non profit), SMEs 75%
 - Demonstration activities 50%
 - Frontier research actions (European Research Council) 100%
 - Coordination and Support Actions 100%
 - Training and career development of researchers actions 100%





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Further information European research

EU research:

www.ec.europa.eu/research

Seventh Framework Programme:

www.ec.europa.eu/research/fp7

Information on research programmes and projects:

www.cordis.europa.eu

RTD info magazine:

www.ec.europa.eu/research/rtdinfo

Information requests:

research@ec.europa.eu





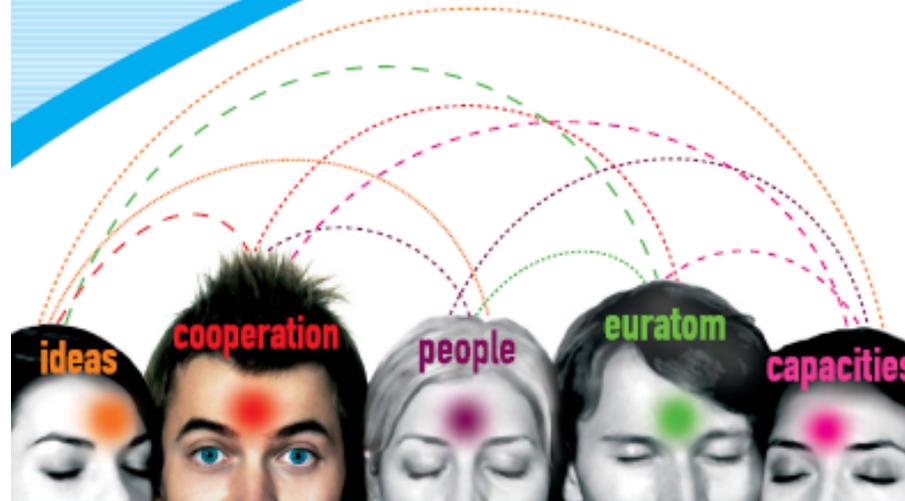
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FP7

Tomorrow's answers start today

