

# Evaluation and Monitoring of European Research Framework Programmes

Tokyo, July 2008

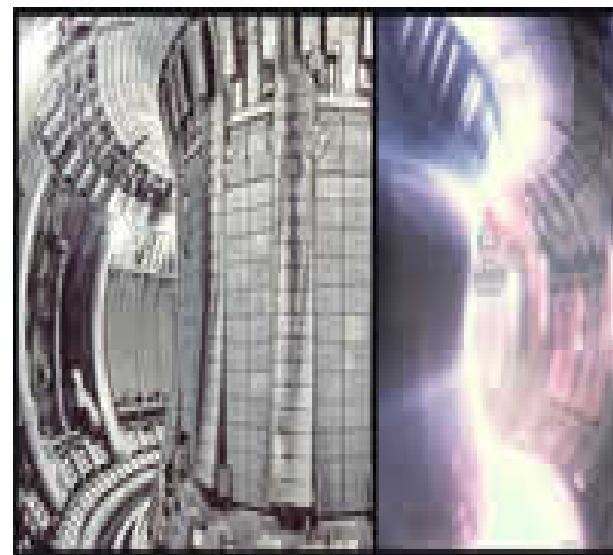
Dr. Peter Fisch  
European Commission  
Directorate General Research A.3

# Roadmap

- The European Research Framework Programmes (FP)
- Evaluation and Monitoring of FP6 and FP7
- Open Issues for organising evaluations

# EU Research

- Most important multinational research programme world wide
- Complementary to national research activities and programmes
- 27 Member States and Associated Countries contributing
- 100+ countries involved
- Annual budget 6bn €, increasing
- 2500+ research contracts per year, involving 20000 partners



# EU Research History

- 1952: European Coal and Steel Treaty; first projects started 1955
- 1957: EURATOM Treaty; Joint Research Centre set up
- 1984: First Framework Programme (1984-1987)
- 1987: *European Single Act Treaty; Research becomes a EU policy*  
Second Framework Programme (1987-1991)
- 1990: Third Framework Programme (1990-1994)
- 1994: Fourth Framework Programme (1994-1998)
- 1998: Fifth Framework Programme (1998-2002)
- 2000: *European Research Area*
- 2002: Sixth Framework Programme (2002-2006)
- 2006: Seventh Framework Programme (2007-2013)

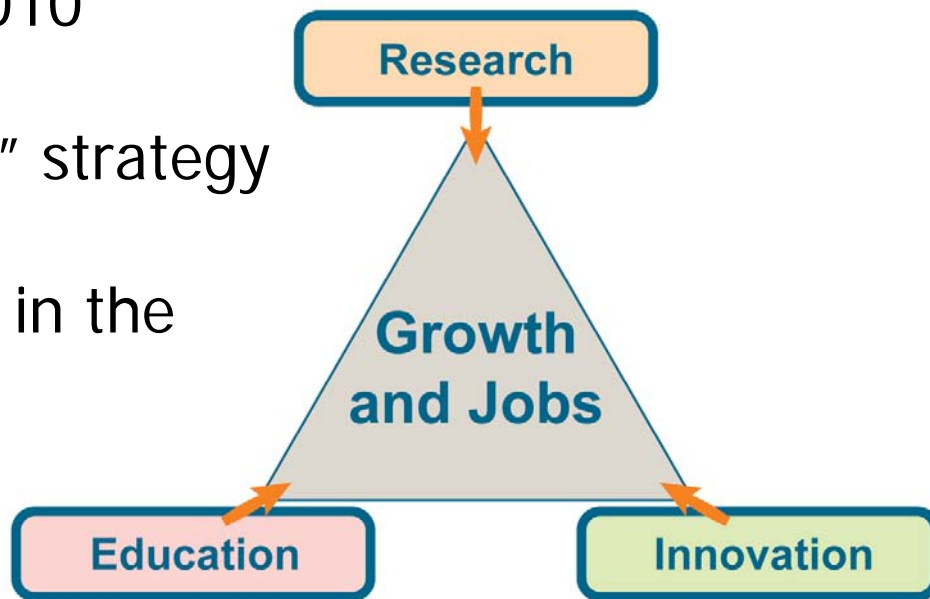
# EU Research Challenges

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

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

# EU Research Lisbon Strategy

- 2000 “Lisbon agenda”:  
“making the European Union the most competitive economy in the world and achieving full employment by 2010”
- 2005 “Growth and jobs” strategy
- Research as key player in the  
“Knowledge triangle”



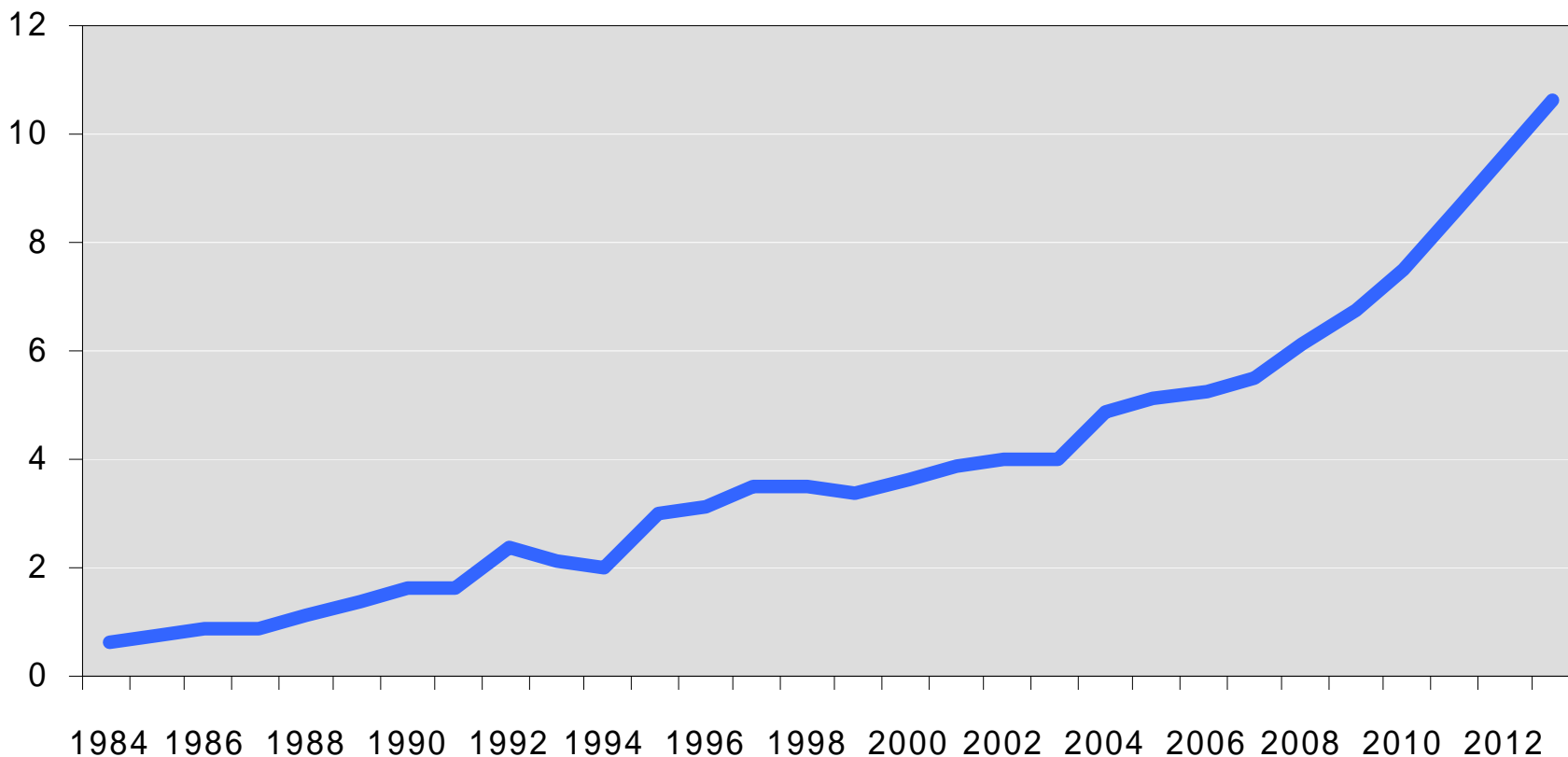
# EU Research European Research Area

- Increased cooperation and integration of research activities at European/national/regional level
- Launched in 2000 as background to FP6 ...
- ... relaunched in 2007 with Green Paper underlining potential “Internal market” for research
  - Free circulation of researchers, technology and knowledge
  - Effective European-level coordination of national and regional research activities, programmes and policies
- Focusing on seven axes – researchers; infrastructure; institutions; knowledge sharing; coordinated research programmes; world access

# EU Research Framework Programmes

## Annual Budgets between 1984 and 2013

€billion



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



# FP7 2007 –2013 Structure

*Cooperation* – Collaborative research

Multi-partner projects, top-down agenda

*Ideas* – Frontier Research

Individual projects, bottom-up agenda

*Capacities* – Research Capacity

Sharing of infrastructures ...

*People* – Marie Curie Actions

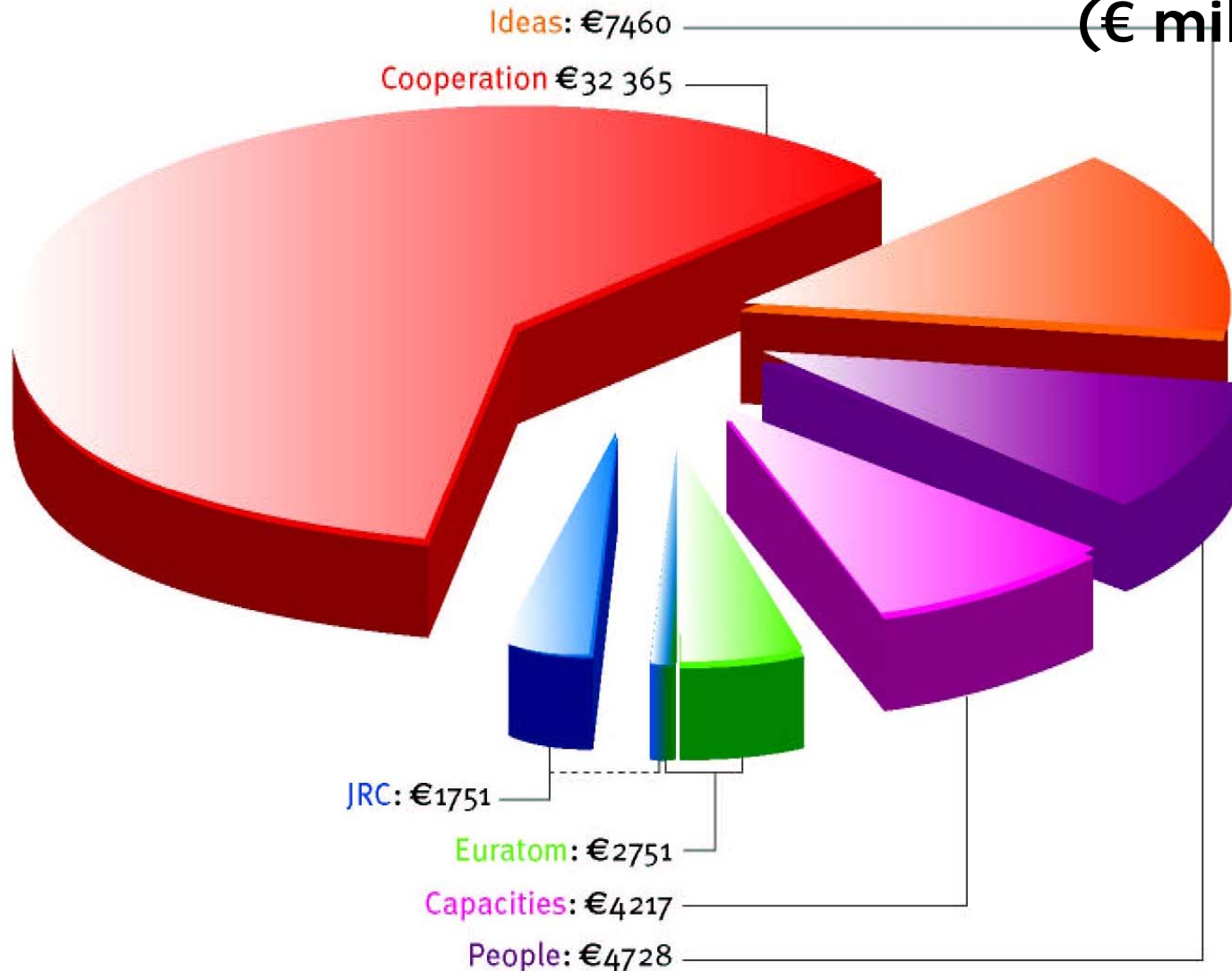
Mobility programmes for post-docs, Training courses, ...



Other activities (EURATOM, JRC, ...)

# FP7 2007 – 2013 Budgetary Breakdown

(€ million)



## Thematic Areas ('Cooperation')

### I. Cooperation

**Budget**  
(€million,  
current prices)

1. Health	6 100
2. Food, agriculture and fisheries, and biotechnology	1 935
3. Information and communication technologies	9 050
4. Nanotechnologies, materials and production	3 475
5. Energy	2 350
6. Environment	1 890
7. Transport	4 160
8. Socioeconomic research	623
9. Space	1 430
10. Security	1 400
<b>Total</b>	<b>32 413</b>

\* Not including non-nuclear activities of the Joint Research Centre: €1 751 million

# FP Evaluation System (1)

- Actors
  - Political level (Member States)
  - European Commission level
  - “Directorate General” level (Ministries)
  - Member States’ evaluation
- Rules
  - Framework Programme Decisions
  - European Commission Financial Regulations and related rules
  - European Commission Communications on Evaluation
  - Other types of internal European Commission Regulations

# FP Evaluation System (2)

FP6	FP7
Annual Monitoring by independent experts	Internal monitoring of implementation -Indicators to track progress
	FP7 interim evaluation
Five Year Assessment by high-level independent experts	Ex post assessment of each FP, 2 years after its completion by high-level independent experts
Impact surveys at FP level	Strengthened programme of coordinated strategic-level evaluations
Evaluation studies at operational level	Evaluation studies at operational level (portfolio, programme)
National impact studies	Coordinated national impact studies
Ad-hoc research-related activities	FP research on evaluation tools and approaches

# FP7 Monitoring Implementation

- Move from external monitoring (FP6) towards internal monitoring (FP7)
- Move from an “ad-hoc” approach towards a continuous and systematic collection of information and indicators
- Monitoring primarily aimed to support management in implementing FP7
- Annual report to be presented to the Programme Committee and to be published on internet
- Possible information source for future FP7 evaluations
- Flexible system to develop as FP7 will become more “mature”

# FP7 Monitoring Issues at Stake

- Application numbers
- Proposal Evaluation
- Time to contract
- Success rates
- User Feedback
- ...

# FP6 Ex-post Evaluation

- Actors: Expert group; Commission services
- Legal base: FP Decision
- Scope: All Community research activities
- Organisation: Coordinated approach between Commission services for FP activities
- Input: Reports from INFSO and JRC; evidence base of 30+ studies; Member States' studies; expert analyses; self assessments,...
- Output: Expert group report (findings and recommendations); Commission response
- Timing: Panel report by end 2008
- Dissemination: Policy makers and FP management



# FP6 Ex-post Evaluation Issues at Stake

- Longer term impact and consequences of FP activities?
- Changes in behaviour of participants?
- Networking patterns (geographical / institutional)?
- Networks of Excellence?
- Integration of new Member States?
- ...

- **Roadmap**
  - Progress Report - 2009
  - Interim Evaluation - 2010
  - Ex-ante Evaluation – in time for new Commission proposal on “FP8”
  - Ex-post Evaluation – 2015
- **FP7 interim evaluation**
  - Independence
  - Comprehensive evidence base
  - Build on the ex-post evaluation of FP6

# FP Evaluation Perspectives

- Growing EU Research budget also means: Increased need for accountability
- Efficiency of the European RTD system under scrutiny
- Timing of forthcoming evaluations in line with need to have an informed debate on future EU RTD policy
- Need to focus more on the “fundamental” aspects and less on minor implementation issues
- Need to develop evaluation capacities in Europe as part of the European Research Area

# FP Evaluation Achievements and Challenges

- ☑ Individually robust evaluations
- ☑ Independence
- ☑ Assessment of impact on scientific knowledge
- ☑ Justification of interventions
- ☑ European network
- ☑ Some evolution of tools

↗ Coordination

↗ Assessment of longer-term impacts

↗ Assessment of socio-economic impact

↗ Use of results in implementation

# Open Issues Intervention Logic

- Specify a clear intervention logic in the basic legal acts
- Develop a hierarchy of (measurable) objectives throughout the different levels (programmes, projects)

## FP evaluation:

- Difficult to achieve in a complex environment like the European Union
- Need to develop new types of indicators in order not to be blocked by just aiming at what you can measure ...

# Open Issues

## Overall Evaluation Strategy

- Clear evaluation strategy from the outset
- Complete coverage of all activities
- Right timing in view of revisions and development of new actions

FP evaluation:

- Concise long term-time planning
- Need to improve on overall coherence of the evaluation activities carried out in different fields of the FP

# Open Issues

## Diversity and Coordination

- Calls for strong coordination and “harmonisation” clash with the need to use a wide spectrum of different evaluation approaches

FP evaluation:

- Diversity is one of the big assets of Europe
- Different traditions and schools across Member States
- Unique opportunity to bring together wide range of evaluation approaches
- Challenge to turn “constructive chaos” into operational structures

# Open Issues

## Control or Understanding

- Different views on what drives evaluation
  - Need to control activities and actors
  - Wish to understand what is going on
- Major implications on the organisation and focus of evaluations

FP evaluation:

- Focus on evaluation as a management task to gain a better understanding of the activities undertaken



# Open Issues

## Longer Term Impact

- Full impact of research activities can only be assessed after a long period of time, as full implementation can take several years

### FP evaluation:

- In order to be on time (politically), evaluations are carried out very early ...
- Test-run planned for a study looking back at projects which were finished some 8 to 12 years ago
- Easier said than done ...

# Open Issues Concise Messages

- A too much detailed level of analysis prevents many evaluation reports from having a real impact in the wider political and societal context

## FP evaluation:

- Meta-Evaluation through expert panels as a tool to “condense” otherwise too dispersed evaluation findings
- Further efforts are needed to focus on key messages for communication with the target audiences

# Open Issues

## Organise Mutual Learning

- There is no “ideal” evaluation
- All actors are trying out different approaches
- Need to organise more mutual learning

FP evaluation:

- European RTD Evaluation Network, involving experts from 30+ countries
- Interest in more active exchange at global level

# Contact

Dr. Peter Fisch

Head of Unit

European Commission – DG RTD A.3

SDME 2/41

1049 Bruxelles

Belgium

[peter.fisch@ec.europa.eu](mailto:peter.fisch@ec.europa.eu)