News from the Commission

- Update on Horizon 2020
- Study on Long-Term Impacts of the FP

ESF MO Forum

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Dr. Peter Fisch

DG Research and Innovation



Horizon 2020 - Fact Sheet

Name

 Horizon 2020 – The Framework Programme for Research and Innovation (2014 – 2020)

Budget

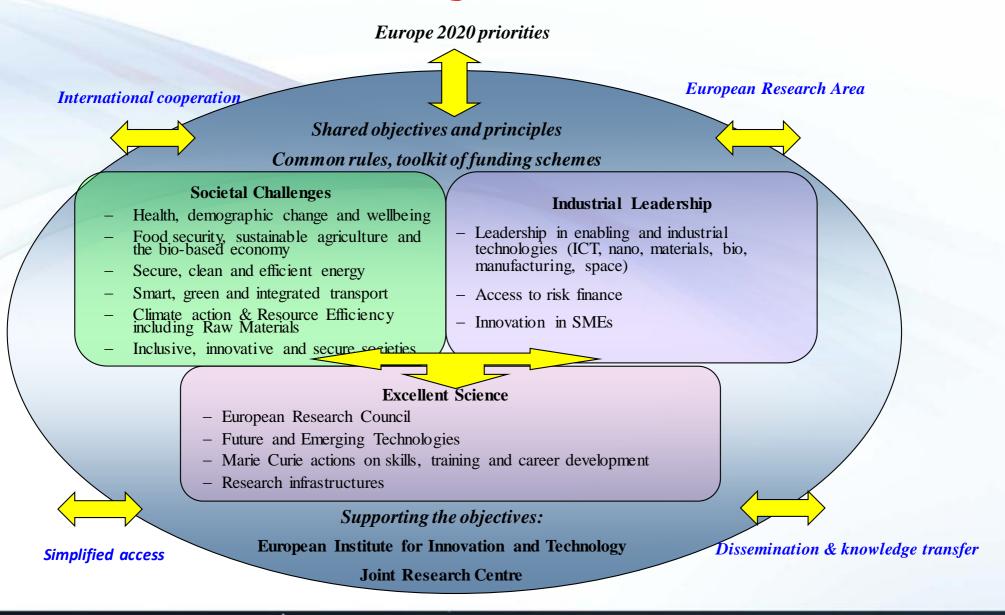
- Commission Proposal: 80 billion Euro (in 2011 prices)
- 8.5% of EU budget

Structure

- Excellent science
- Industrial leadership
- Societal challenges



Horizon 2020 – Objectives and Structure





Horizon 2020 - Next steps

- Ongoing
 - Negotiations on EU budget
- 30 November
 - Commission Proposals for Horizon 2020
- Summer 2012
 - FP7 2013 Work Programmes
- · 2012 / 2013
 - Legislative Decisions by Council and Parliament
- 1 January 2014
 - Start of Horizon 2020



Long-Term Impact Study

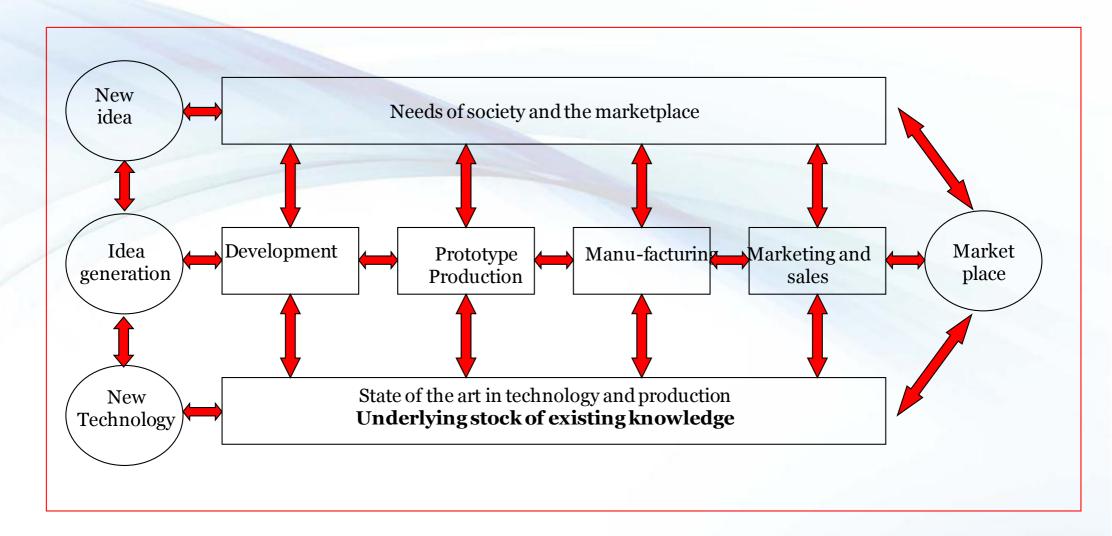
- Study on longer term impact of FP
 - Analysing impact of FP4, FP5 and FP6 « from the distance »
- Attempt to combine quantitative and qualitative mehodologies
 - Quantitative approach not as successful as hoped for
- Carried out by Technopolis
- Final version still under way

Conventional wisdom

- FP funds high-quality R&D, attracts excellent researchers, engages the more research-intensive companies
- FP by design a pre-competitive programme, primarily producing 'intermediate knowledge outputs'
- Most participants have only a fleeting relationship with FP
- Strong core of established players and networks whose composition slowly shifts over time
- Very little is known about how networks work, how networking relates to strategy or how network shape relates to success
- Bigger networks do not seem to be more productive than smaller ones



FP Context





Attempt for an Intervention Logic

Outputs

Early outputs for subsequent innovation

New concepts & devices for next generation of S&T breakthroughs

New research tools & techniques, models & simulations

New advanced methods, systems & technologies

Outputs for research or market integration

Joint databases/ platforms/ testbeds

New common methodologies

Technology roadmaps

New or improved standards

Outputs for knowledge transfer

Study results and reports

Conference, workshop papers, proceedings

Formal publications

Mobility of researchers

PhDs etc

New educational programmes

Information material for user communities

Advice or recommendations to policy-making

Closer-to-market outputs

Improvement of & migration paths for existing technologies

Innovative processes, products & service delivery systems

Interoperation & integration of systems & technologies

Proof of S&T feasibility (pilots, prototypes, demonstrations)

Outcomes

Knowledge generation & learning

Enhanced S&T base

Enhancement of the human capital

Improved access to science & technology infrastructures

Enhanced science & technology infrastructures

Improved innovation processes (co-operation in R&D, open innovation)

R&D in line with industry & end-user needs

Windows of opportunity

Knowledge networks

Networks of technology developers, providers and users (value chain)

New sector or technology networks

Cross-disciplinary research networks

Knowledge spillovers

Awareness among industry communities

Awareness among research communities

Awareness among user communities

Awareness among policy-makers

Outcomes enabling commercial exploitation

Awareness on markets & end user needs

Improved innovation capabilities

Opening-up of new markets

Enhanced competitive advantage

Intellectual property

The formation of new business entities

Mid-term Impacts

Knowledge exploitation

Continuity in research

Collaboration in R&D

Integration of research communities

Longer-term knowledge networks

Science-industry collaboration

Technology exploitation

Launch of a new product or service Implementation of new processes Technology spill-over (innovation

through imitation)

Innovation in industry

Diffusion of new innovation processes
Adoption of new business models

Innovation in market structures

Market development

Market integration

Knowledge spill-over to the education system

Knowledge spill-over to other R&D policies

Improved policy development & regulations

Innovation acceptance among end users

Long-term Impacts

Emergence of new technologies or fields of science

Technological trajectories

Integration of research

Cohesion of Europe

Diffusion of innovation in products, processes & services

Strengthened competitive position of industry

Innovation in policy-making

Innovation in the economic sphere



Long-term impact in different areas

Long-term impacts	QIPC	Brain Resear ch	O ₃	Solar PV	Auto- motive	Manu - future
Emergence of new technologies or fields of science	X	X		X		
Technological trajectories	X			X	X	
Integration of research	X	X	X	X	Χ	X
Cohesion of Europe			Χ	X		X
Diffusion of innovation in products,				X		
processes or services						
Strengthened competitive position of				X	X	
industry						
Innovation in policy-making			X			X
Innovation in the economic sphere				X	X	X



Long-term impact in different areas

Long-term impacts	QIPC	Brain	O ₃	Solar	Auto-	Manu
		Resear		PV	motive	-
		ch				future
Discovery	X	X	X	X		
Creating new knowledge outputs,	X	X	X	X	X	
moving towards applications						
Discipline development	X					
Focusing device for innovation				X	X	X
Agenda-setting	X	X	X	X	X	X
Promoting self-organisation of	X	X	X	X	X	X
stakeholder communities						
Influencing regulations or standards	X		X	X	X	
Coordinating or influencing policy		X	X	X	X	X
Strengthening networks, Knowledge	X		X	X	X	X
Value Collectives; defragmenting the						
research community						



Long-term impact in different areas

Long-term impacts	QIPC	Brain Resear ch	O ₃	Solar PV	Auto- motive	Manu - future
Changing research network shapes: putting Europe in the centre	X	X	X	X	N.A.	N.A.
Levering funding for R&D	X	X	X			X
Mobility/development of human capital	X	X	X	X	X	
Research infrastructure (Grids, test- beds, etc)						
Behavioural additionality		X			X	X
Speeding up industry' entry into new technologies	X					
Tackling problems too big for an individual Member State	X	X	X			X
Addressing areas of major socio- economic importance for the EU	X	X	X	X	X	X



Analysis of the longer term impacts

Positive

- Legitimating new fields
- Focusing devices
- Creating consensus: problem definitions, road maps, standards
- Empowerment and self-organisation of stakeholder groups
- Structuring the R&D fabric
- Knowledge Value Collectives

Problematic

- Lock-ins
- Absence of disequilibration, creative destruction
- Inward-looking in an increasingly irrelevant continent?



Contact

Dr. Peter Fisch

Head of Unit "Ex-post Evaluation"

European Commission – DG RTD A.6

SDME 2/41

1049 Bruxelles

peter.fisch@ec.europa.eu

http://ec.europa.eu/research/evaluations

