

Future and Emerging Technologies Overview and Future Strategy



European Commission
Future and Emerging Technologies proactive

Future and Emerging Technologies (FET)

Mission: *Supporting the emergence of new visionary ICT research*

- Pathfinder and incubator for exploring new visionary ideas
- Long-term foundational research
- High risk/high pay-off research
- Multi- and inter-disciplinary research
- Aiming at science and technology breakthroughs
- Maturing and structuring emerging research fields, communities and practices



Future and Emerging Technologies

A continuing well established successful IST scheme

Two complementary inter-linked schemes
FET Proactive + FET Open

FET Proactive

- Top-down approach
- Set of novel pre-defined themes

€ 143 M^(*)



FET Open

- Bottom-up approach
- Open to any research idea

€ 93 M

(*) figures from WP 2011-2012

FET Workprogramme: Perspectives for 2013

Open, light and agile

Roadmap based research

Science-driven Technology-oriented research by FET

Individual Projects

Early Ideas

FET Open

Research Clusters

Incubation

FET Proactive

Common Research
Agenda

Large-Scale Initiatives

FET Flagships

ideas

Developing
topics

communities

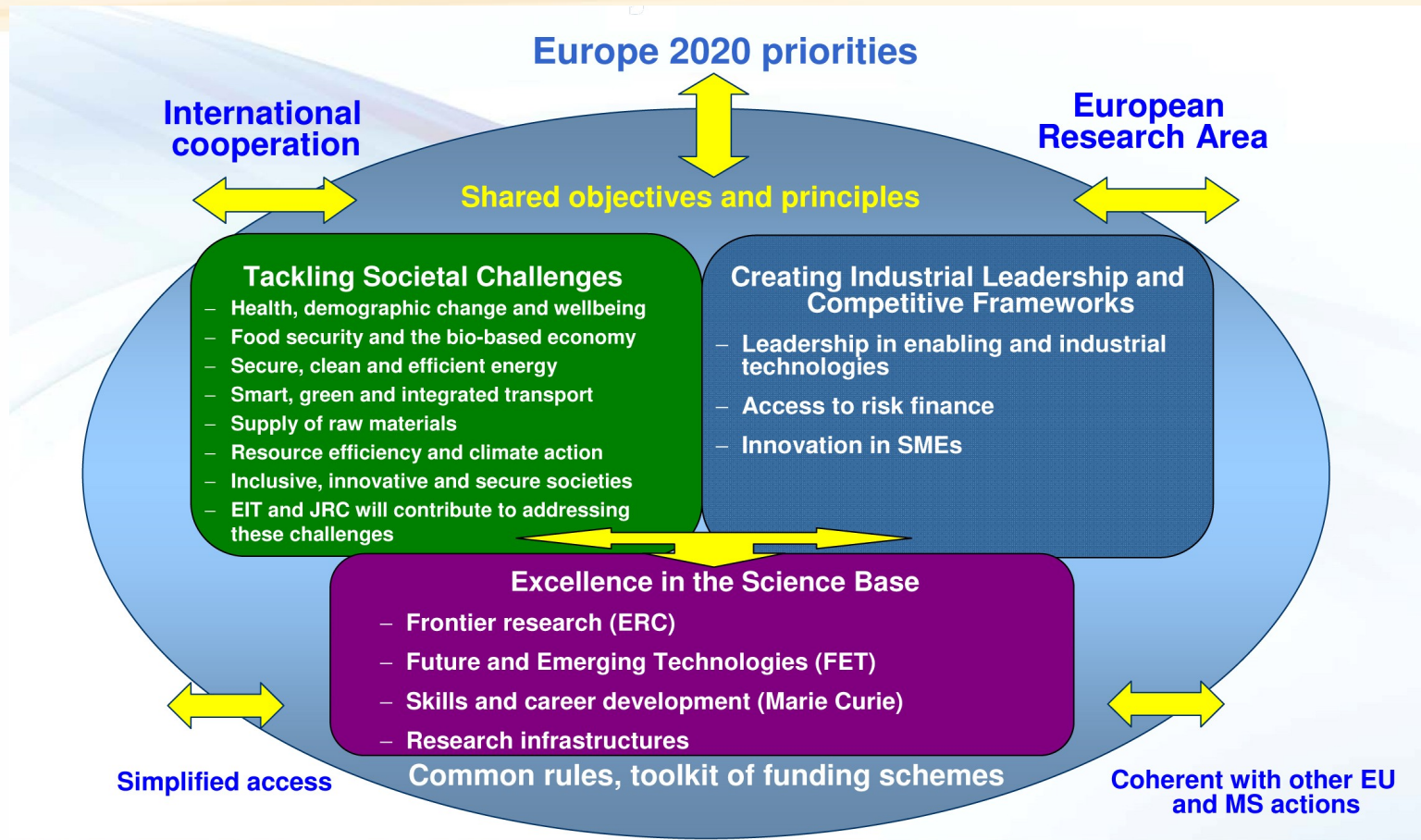
Beyond ICT
Programme

National
Programmes

Beyond 2013: The Common Strategic Framework

- **Covering current funding for:**
- The **7th Framework Programme (FP7)** for research, technological development and demonstration
 - €53 billion (2007-13)
 - 4 main programmes on Ideas, Cooperation, People and Capacities.
- The **Competitiveness and Innovation Framework Programme (CIP)**
 - €3.6 billion (2007-13)
 - 3 programmes on enterprise & innovation, intelligent energy, and ICT policy support.
- The **European Institute for Innovation and Technology (EIT)**
 - Autonomous EU body bringing together higher education, research and business to stimulate innovation in Knowledge and Innovation Communities. EU budget contribution of €309 million (2007-13)
- **And strengthening complementarities with the Structural Funds**
 - €86 billion allocated (2007-13) to R&D and innovation, entrepreneurship, ICT and human capital development

FET in H2020



FET Open – WP 2011-2012

Continuous Call

67,5M€

7,5M€

9.1 Challenging Current Thinking (STREP+CSA)

9.2 High-Tech Research Intensive SMEs (STREP)

9M€

9.3 FET Young Explorers (STREP)

6M€

**9.4 International Cooperation on FET research
(additional funding)**

3M€

Call 8

17 Jan
2012

9.14 Science of Global Systems

3,5M€

FET Proactive – WP 2011-2012

Call FET-F

FET Flagship Initiative Preparatory Actions (CSA) 10M€

Call 7

9.12 ERA-NET follow-up (CSA)

2,5M€

0,5M€

26 July
2011

9.6 Unconventional Computing (STREP)

15M€

22M€

Call 8

9.7 Dyn. of Multi-Level Complex systems (IP/Strep)
INCO dimension (CSA) 1M€

17 Jan
2012

9.8 Minimising Energy Consumption of
Computing to the Limit (Strep)

15M€

18 Jan
2012

9.9 Quantum ICT (IP/Strep) 15M€
including ERA-NET Plus (ERA-NET-Plus) 7M€

Call 9

9.10 Fundamentals of Collective
Adaptive Systems (IP/Strep) 23M€

17 April
2012

9.11 Neuro-Bio-Inspired Systems (IP/Strep) 22M€
INCO dimension (CSA) 1M€

9.12 INCO (CSA)

9.12 Coord. Communities (CSA)

9.12 organising conferences (CSA)

9.12 Identifying new FET topics (CSA)

3M€

2.5M€

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FET addresses the entire line of science-driven innovation



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FET Open

Bottom-up small scale early
exploration of novel and fragile ideas

Topic-agnostic
Exploratory
Deadline-free
Light 2-step scheme



FET Proactive

Transformative thematic research
and emerging communities

Targeted
Consolidating
Fixed calls
Critical mass

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FET Flagships

Large roadmap-driven and
federated research initiatives

Science driven
Large scale
Federated effort of stakeholders