



# TOWARD THE NEXT EUROPEAN RESEARCH PROGRAMME

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# GROWING SIGNIFICANCE OF KNOWLEDGE

KNOWLEDGE BASED SOCIETY (ECONOMY) . **COMPETITION!**

→ INNOVATION ORIENTED SOCIETY. **GREAT CHALLENGES!!**

RESOURCES (LABOUR, MATERIALS, ENERGY, CAPITAL,  
**KNOWLEDGE**). SCIENTIFIC KNOWLEDGE!

NEW PRACTICES IN RESEARCH (multidisciplinary, groups)

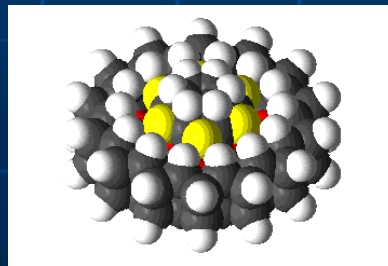
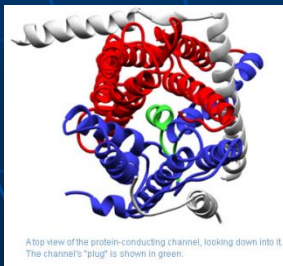
NEW PRIORITIES (sustainable development, jobs, competitiveness)

SIGNIFICANCE OF HUMAN CAPITAL + INFRASTRUCT. (incl. e-INFRA)

DRYING OUT TECHNOLOGIES

GLOBALIZATION. CRITICAL SIZE. INTERNATIONAL COOPERATION

NEW POTENTIAL REVOLUTIONS (BIO-, NANO-, INFO-TECHNOLOGIES )



# AND WE ARE FACING NUMEROUS (GRAND) CHALLENGES

And they are problems mankind has experienced never before:

- They include issues such as energy and raw materials supply, the preservation of the environment, competitiveness and employment, health and the security of people

# **AND HOW DID EUROPE REACT TO THESE PROBLEMS BEFORE AND IN FP7?**

**PRIORITY (before FP7): COMPETITIVENESS.**

**RESULT: WHILE INCREASING FUNDS, DECREASING  
COMPETITIVENESS**

**ELSEWHERE: PUBLIC FUNDS SHOULD SUPPORT THE BASIS, namely  
EDUCATION;**

**BLUE SKY RESEARCH (IDEAS);**

**TRAINING IN RESEARCH;**

**RESEARCH INFRASTRUCTURES.**

**TECHNOLOGY**

**FP7 IS A GOOD STEP IN THIS DIRECTION. THIS SHIFT OF THE CENTER OF  
GRAVITY OF ACTIVITIES IN THE COMING FP-S SHOULD  
CONTINUE.**



# Some elements of European science policy

- **BASED ON THE KNOWLEDGE TRIANGLE**

EDUCATION, RESEARCH, INNOVATION

- **THE LISBON STRATEGY**

Knowledge-based economy – competitiveness and jobs

- **THE EUROPEAN RESEARCH AREA (ERA)**

Harmonization, freedom of researchers, knowledge, technology. ERC!

- **THE LJUBLJANA PROCESS**

Joint programming; Fifth freedom; ERA governance

- **THE BOLOGNA PROCESS**

European Higher Education Area (EHEA)



## THE EUROPEAN RESEARCH AREA (ERA) (one of the European responses)

IT SHOULD BE AN AREA WHERE

- ⇒ the **scientific capacity and material resources** can be optimized in synergy,
- ⇒ where **national and European policies** can be implemented more coherently, and
- ⇒ where **people and knowledge can circulate** freely;

IT SHOULD BE

- ⇒ **attractive** both to European researchers and the best researchers from outside the EU (talents), and
- ⇒ be based on **common social and ethical values**, rooted in European traditions.
- ⇒ **Its main instruments are the Framework Programmes**

# STRATEGIC GOALS OF ERA

**HUMAN CAPITAL** – A diverse, internationally competitive and globally engaged workforce of scientists, engineers and well-prepared citizens.

**IDEAS** – Discovery across the frontier of science and engineering, connected to learning, innovation, and service to society.

**INSTRUMENTS** – Broadly accessible, state-of-the-art S&E facilities, tools, and other infrastructure that enable discovery, learning and innovation.

**MANAGEMENT** – An agile, innovative organization that fulfills its mission through leadership in state-of-the-art business practices.

# How to strengthen through the science base the European Research Area?

- **Stronger role for the European Research Council**
- EU support to improve Member State policies
- Greater support to **mobility and research careers** (Marie Curie actions)
- Actions to strengthen the role of women
- **EU level support to research infrastructures (incl e-infrastructure)**
- Priorities for **international cooperation**
- Addressing obstacles to the **European Research Area**



# THE FOUR SPECIFIC PROGRAMMES OF FP7

For talents

By talents

## CO-OPERATION

Fostering collaboration between industry and academia to gain sustainable leadership in key technology areas  
10 Thematic Priorities

## IDEAS

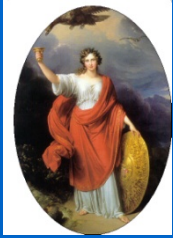
Supporting individual basic research at scientific frontiers  
European Research Council

## PEOPLE

Supporting mobility and career development for researchers both within and outside Europe  
Marie Curie Actions

## CAPACITIES

Helping develop the capacities that Europe needs to be a sustainable knowledge-based economy  
SME Research/Research Infrastructure/RoK/INCO/Policy Research



# EUROPEAN RESEARCH COUNCIL

**ONE OF THE KEY INSTRUMENTS TO REALIZE THE GOALS OF FP7: THE "IDEAS" SPECIFIC PROGRAMME**

**BY PROMOTING EXCELLENCE IN ALL AREAS OF SCIENCE  
BY COMPETITIVE FUNDING, SOLELY ON THE BASIS OF  
EXCELLENCE**

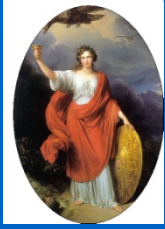
**BY SUPPORTING GROUP RESEARCH BUT INDIVIDUALS TOO  
(FIRST OF ALL YOUNG RESEARCHERS, HIGH RISK,  
INTERDISCIPLINARY RESEARCH)**

**WITH MINIMAL BUREAUCRACY. OPEN ON GLOBAL SCALE!**

**EARLY STAGE INDEPENDENT INVESTIGATOR SCHEME**

**ESTABLISHED INVESTIGATOR GRANT SCHEME**

**MASTERED BY ERC AND ITS SCIENTIFIC COUNCIL**



# **ERC GRANTS**

## ***(Principles of support)***

- **All fields of science and scholarship are eligible**
  - ↳ investigator-driven, bottom-up
- **Excellence is the only valid criterion**
  - ↳ Individual or team + research project
- **Investment in research talent (7.5 B€)**
  - ↳ Attractive, flexible grants, up to five years
  - ↳ under control of the lead researcher (PI)
- **Independent individual teams in Europe**
  - ↳ nationality of researchers is not relevant
  - ↳ host organization to be located in EU or AS



# STRATEGIC AIMS OF ERC

## Boost European excellence in "Frontier Research"

- by investing in the best researchers and ideas
- through competition at European level
- on the basis of scientific excellence as the sole criterion
- raising incentives towards quality and aspirations of individual researchers
- providing benchmarks and leverage towards broader (structural) improvements in European research

**THIS IS PART OF A BROADER VISION  
REMAINING ACTUAL BEYOND FP7 TOO.**

## Summary of Challenges for the ERC

- To sustain the career progress of Starter Grant recipients
- To take risks in peer review
- To be a “learning organization”
- To generate benefit for those not awarded grants
- To make the whole > the sum of parts by stimulating coalescence in emerging fields and productive interdisciplinary interactions
- To attract scientists from around the world to European laboratories
- To translate the passion for discovery in all fields into societal benefits
- To spend the 7.5B€ efficiently and accountably

# ON THE EU 2020 VISION (POST FP7)

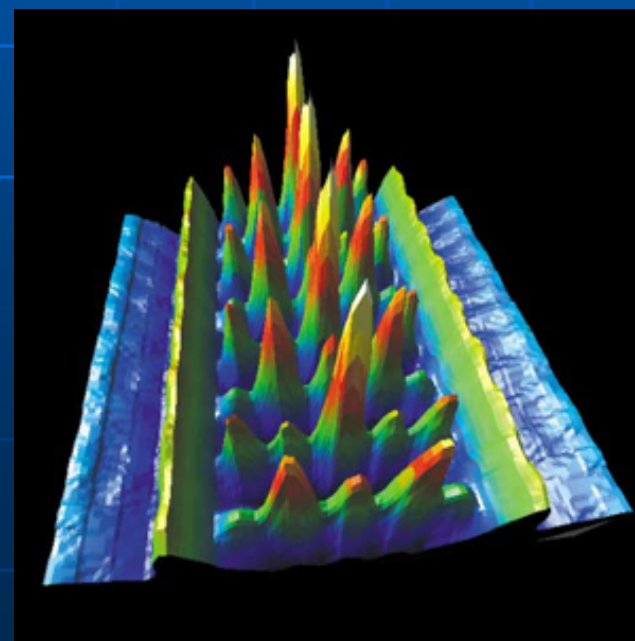
(based on a Common Strategic Framework)

## **PRIORITIES:**

1. Smart growth (economy based on knowledge and innovation)
2. Sustainable growth (more resource efficient, greener and more competitive)
3. Inclusive growth (high employment economy, social and territorial cohesion)

## **FLAGSHIP INITIATIVES:**

1. Innovation Union;
2. Youth on the move;
3. A digital agenda for Europe;
4. Resource efficient Europe;
5. Industrial policy for the globalization era;
6. An agenda for skills and jobs;
7. European platform against poverty.

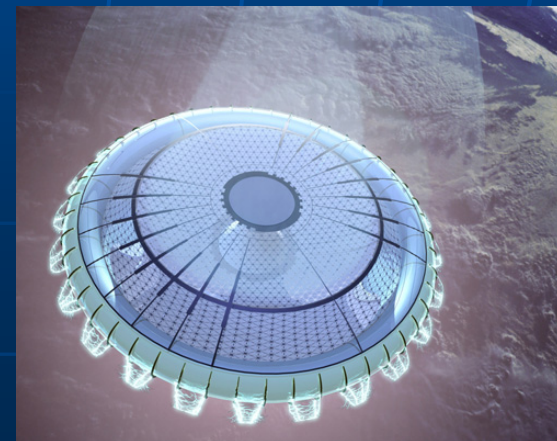


# Scope of the Common Strategic Framework

- **Covering current funding for:**
- The **7<sup>th</sup> 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

## Some potential features of “FP8”:

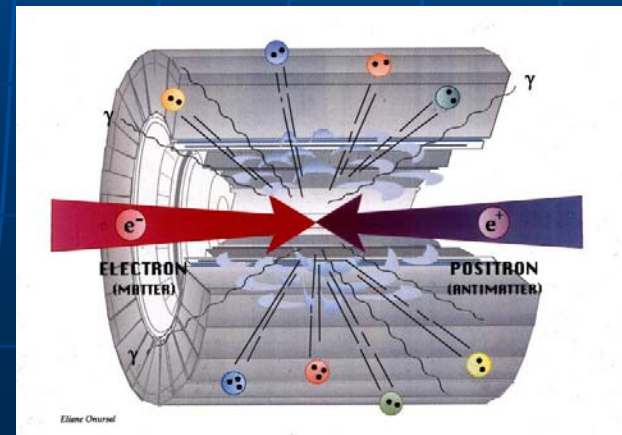
- Focus on Grand Challenges
- Driving European competitiveness and growth based on agreed criteria of European added value
- Develop synergies and links with other instruments, programmes, policy areas at the regional, Member States and European level.
- Strengthening the international and global perspective
- Strive for enhanced simplicity, harmonisation and flexibility with focus on the need of the beneficiaries
- Have sufficient degree of continuity
- Participation of female researchers
- Support for young researchers





## “FP8” should concentrate:

- both on curiosity driven and demand driven research
- furthermore on cross disciplinary research
- on activities of testing and demonstration
- on transnational cooperation and mobility between business, institutes and academia
- on improving knowledge transfer, and efforts to make scientific knowledge broadly accessible, and
- on creation and growth of knowledge intensive SMEs **AND:...**



## **ON RESEARCH INFRASTRUCTURES (1)**

- High-quality research infrastructures are essential for top-level research and for attractiveness of the research environment, as well as for response to the needs of industry and should be strongly supported.**
- It is needed to support both existing and new research infrastructures. The needs of users (incl. Industry) must be better observed already in the planning stage.**
- The development of the RI-s requires a broad-based, common European approach. European co-operation must be made more effective in the planning, building and exploitation of common research infrastructures.**

## **ON RESEARCH INFRASTRUCTURES (2)**

- The use of the Framework Programme financing should be continued to support both access to and building of infrastructures, networks of RI-s, as well as investigation and development projects of new infrastructures.**
- The establishment of new, major European RI-s and their operation should be included in the FP8 financing schemes, when they result in European added value and/or serve common European needs.**
- FP8 should have a special role in the development and implementation of the roadmap projects of ESFRI.**
- The continued development of e-Infrastructure (for networking,etc.)**

**THANK YOU FOR YOUR ATTENTION!**

