

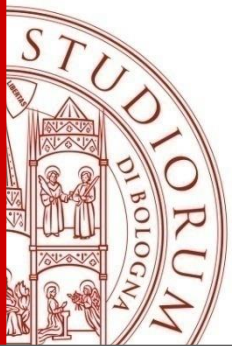
# Introduction to FP7 and H2020: structure, programmes, funding instruments

Alessia Di Sandro

Research and Technology Transfer Division

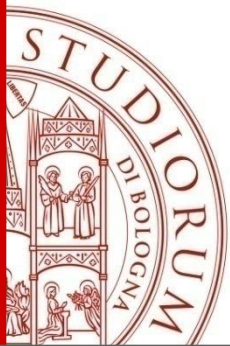
European Research and Innovation Office

*Agro-food, Bio-economy, Energy and Environment Unit*



# 7th Framework Program (2007-2013)





# European Research and Innovation funding (2007-2013)

- Research Framework Programme



- Competitiveness and Innovation Framework Programme



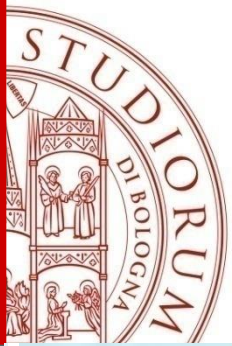
- Structural Funds and Cohesion Fund



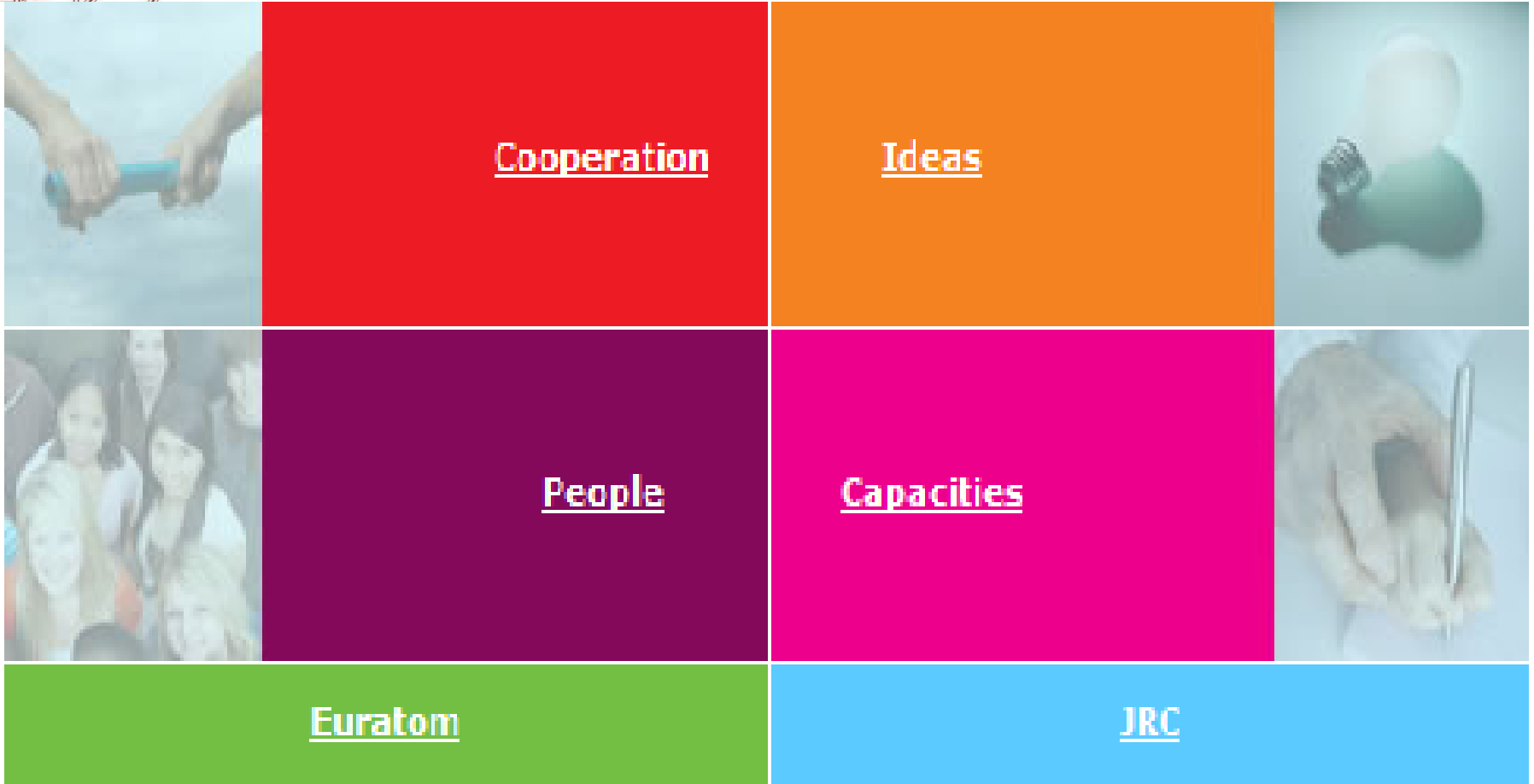
**European Union**  
Cohesion Policy

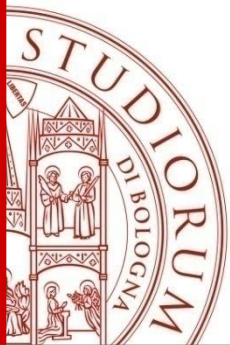
- The European Institute for Innovation and Technology





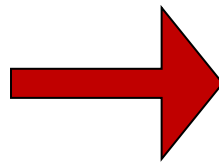
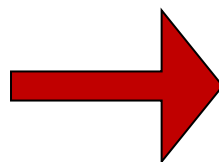
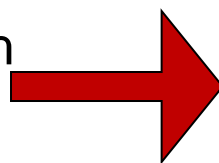
# FP7 structure

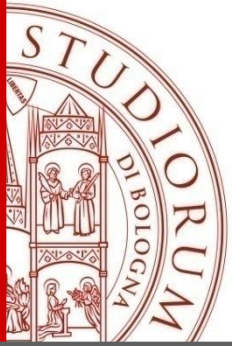




- Cooperative, transnational research
- Policy-defined themes
- *Top-down* research

**Objective:** to gain or to consolidate scientific, technological and economic leadership in key sectors



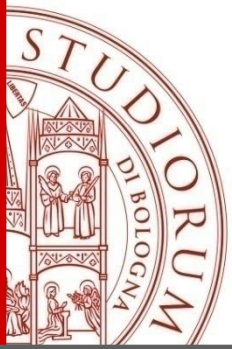


- Frontier research
- Investigator driven
- *Bottom-up* research

## Objectives:

- to reinforce excellence, dynamism and creativity in European research
- to improve the attractiveness of Europe for the best researchers from both European and third countries, as well as for industrial research investment



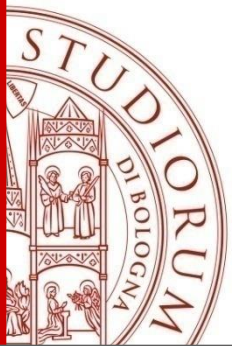


- Mobility and career development

## Objectives:

- To strengthen, quantitatively and qualitatively, the human potential in research and technology in Europe
- To increase transnational and intra-sectors mobility
- To differentiate competences and career paths

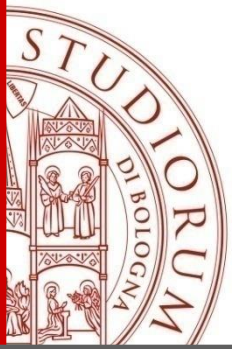




# Horizon 2020 (2013-2020)

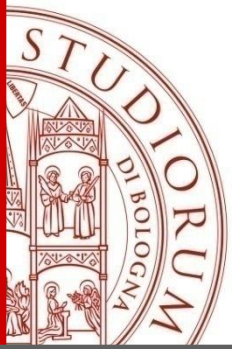






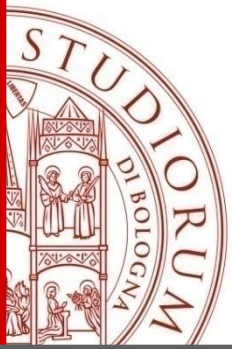
# Horizon 2020

- A European Research & Innovation funding programme (2014-20) (~77 billion Euro)
- Part of proposals for next EU budget, complementing Structural Funds, education, etc.
- A core part of Europe 2020, Innovation Union & European Research Area:
  - **Responding to the economic crisis** to invest in future jobs and growth
  - **Addressing peoples' concerns** about their livelihoods, safety and environment
  - **Strengthening the EU's global position** in research, innovation and technology



# A strategic programming approach

- Work programme preparation based on guidance obtained from a strategic programming exercise
- To increase impact of the funding, and a more integrated approach
- Work programmes with a 2 year-duration
- Leitmotif of the first work programme is the **economic crisis and the path to sustainable growth** - Horizon 2020 can make a significant contribution to this effort
- 'key drivers' used to identify areas on which resources and effort will be focused for maximum impact
  - focusing on sustainable competitiveness, innovation and growth;
  - measures to leverage engagement of industry, including SMEs;
  - access to finance;
  - developing new knowledge and contributing to skills;
  - deployment of enabling technologies;
  - measures to address the research and innovation divide;
  - supporting strong partnership with Member States; and
  - strategic approach to international cooperation.



# A balanced approach

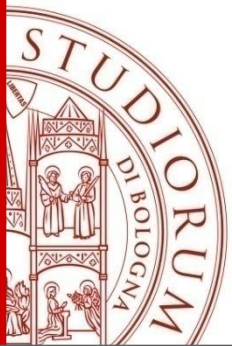
For growth and jobs and for addressing societal challenges Europe needs:

1. to maintain expertise in key technology value chains
2. to move quicker from research excellence to the market

This requires...

- 1. Strong industrial roadmaps:
- long term commitment
- continuity and stability
- new actors to exploit and leverage new technologies

- 2. Disruptive innovation:
- flexibility and openness
- dynamic eco-systems
- new actors to initiate and drive change



# Horizon 2020

- Common Strategic Framework: result of the melting of 3 different Programmes:
  - ✓ Framework Programme
  - ✓ CIP
  - ✓ EIT
- Complementarity with Structural Funds
- Leverage effect on National and Regional Funds
- Innovation as characterizing factor for all the activities



# Toward a unique Programme Research – Development - Innovation

2007  
-  
2013



2014  
-  
2020

R&D  
7FP

Innovazione  
CIP

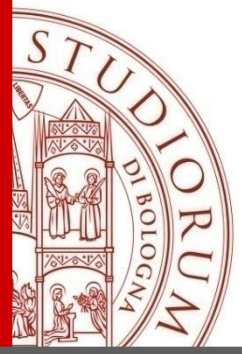
EIT

INNOVATION  
=  
KEYWORD

R&D&I  
HORIZON  
2020

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020



# HORIZON 2020

Europe 2020 priorities

International Cooperation

European Research Area (ERA)

Shared objectives and principles

## Tackling Societal Challenges

- Health, demographic change and wellbeing
- Food security and the bio-based economy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Supply of raw materials, resource efficiency and climate action
- Inclusive, innovative and secure societies

## Creating Industrial Leadership and Competitive Frameworks

- Leadership in enabling and industrial technologies (Biotechnology,...)
- Access to risk finance
- Innovation in SMEs

## Excellence in the Science Base

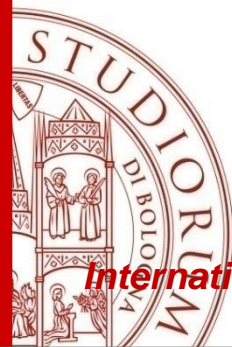
- Frontier research (ERC)
- Future and Emerging Technologies (FET)
- Skills and career development (Marie Curie)
- Research infrastructures

Common rules, toolkit of funding schemes

SIMPLIFIED ACCESS

COHERENCE WITH OTHER EU AND MS ACTIONS



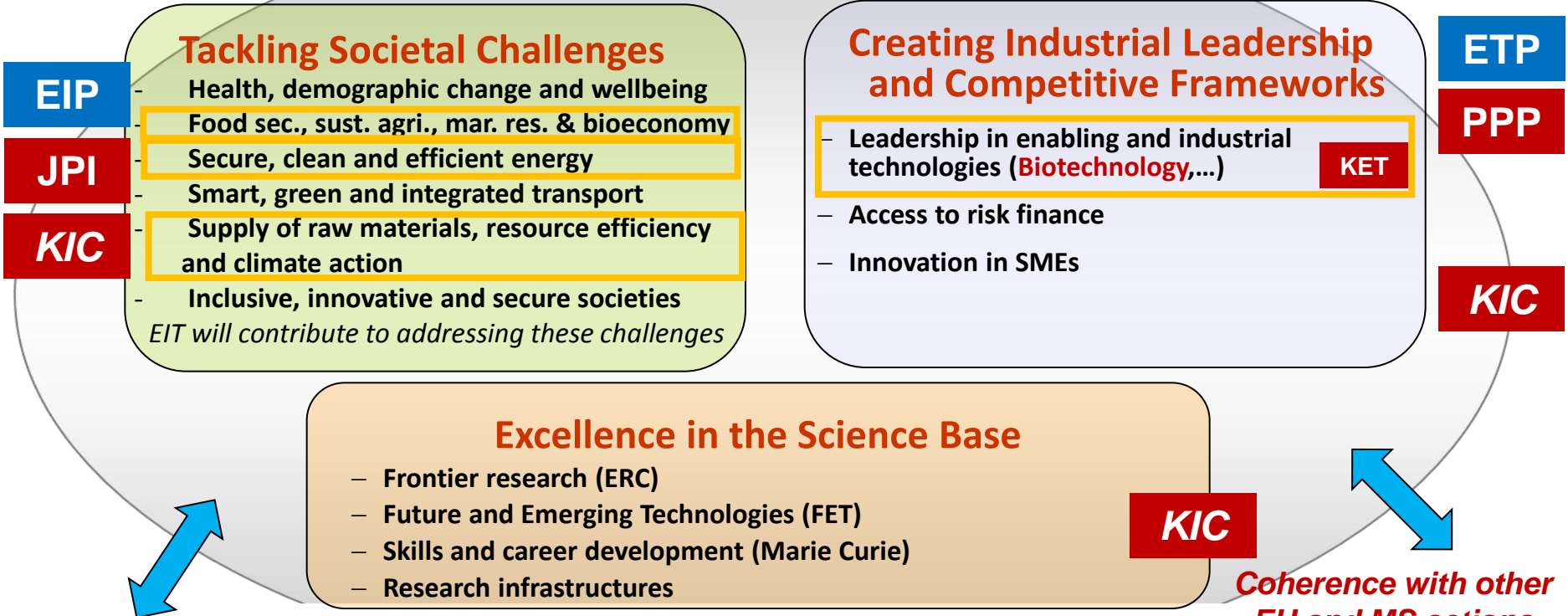


# Horizon 2020 structure and related initiatives

Europe 2020 Priorities

European Research Area

International cooperation



**EIP**

**JPI**

**KIC**

**Tackling Societal Challenges**

- Health, demographic change and wellbeing
- Food sec., sust. agri., mar. res. & bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Supply of raw materials, resource efficiency and climate action
- Inclusive, innovative and secure societies

*EIT will contribute to addressing these challenges*

**ETP**

**PPP**

**KIC**

**Creating Industrial Leadership and Competitive Frameworks**

- Leadership in enabling and industrial technologies (**Biotechnology,...**) **KET**
- Access to risk finance
- Innovation in SMEs

**KIC**

**Excellence in the Science Base**

- Frontier research (ERC)
- Future and Emerging Technologies (FET)
- Skills and career development (Marie Curie)
- Research infrastructures

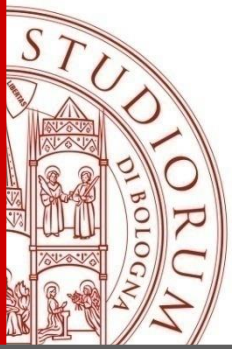
Simplified access

Common rules, toolkit of funding schemes

Coherence with other EU and MS actions

FUNDING

STRATEGIC



# Integrated approach\_1

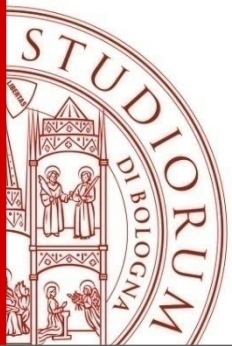
## KEY WORDS

**Internazionalitation**

Public-public and public-private **partnerships**  
(committment & extra fund)

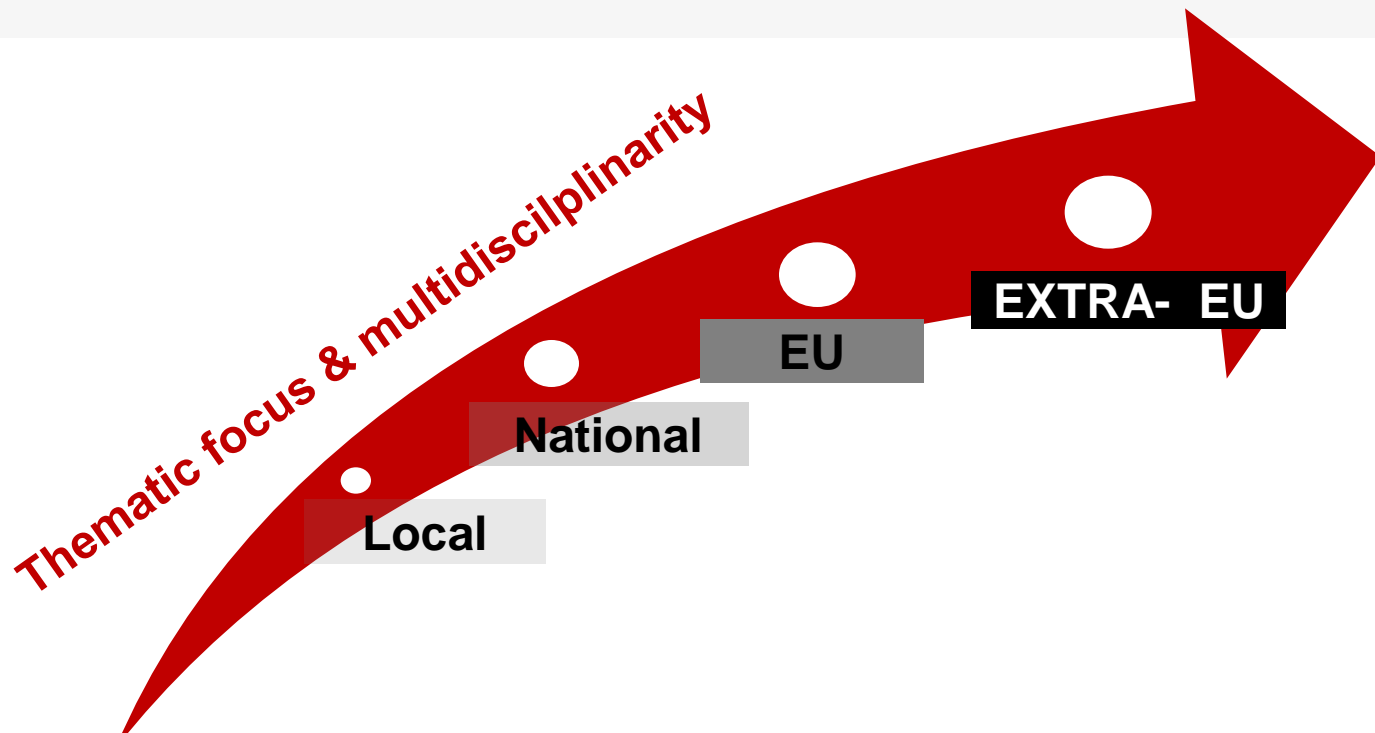
**Horizontal actions** among Horizon 2020 pillars and  
**sinergies** among EU funding initiatives



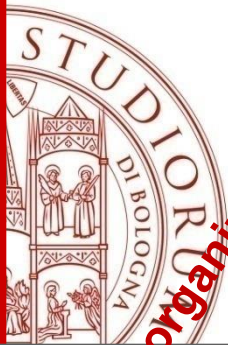


# Integrated approach\_2

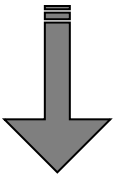
**Coordination** of actions/programs/initiatives  
at EU, National and local level



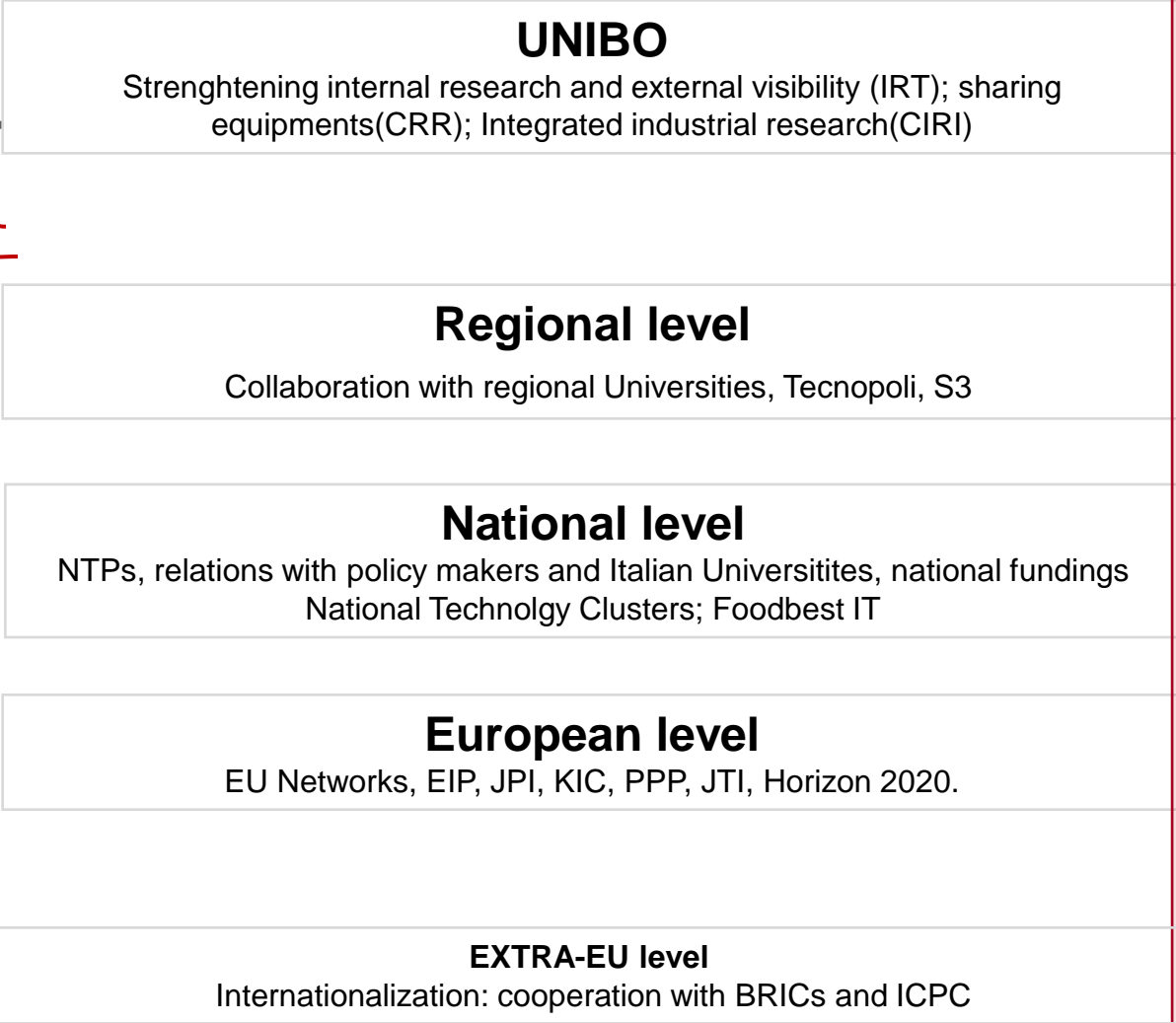
# UNIBO Action



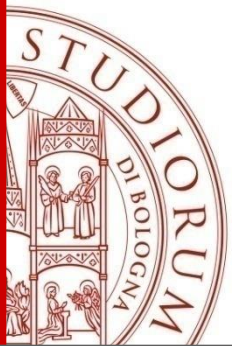
*Internal organization*



*Participation*

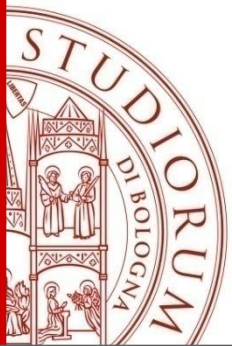


**Focus on Innovation**  
**Collaboration with industry**  
**Knowledge Transfer Office**



# FP7-Horizon 2020: Rules comparison





# From FP7 to Horizon 2020

## **Simplification:**

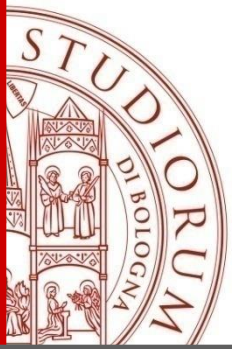
- FP+EIT+CIP
- Unique information point/platform
- Unique rules for participation, evaluation, etc.
- Simplification rules for proposal and project management

## **Focus on:**

- Internazionalitation
- Coordination of actions/programs/initiatives at EU and National level
- **Public-public and public-private partnerships (commitment & extra fund)**
- Horizontal actions among Horizon 2020 pillars and synergies among EU funding initiatives

## **Focus on SMEs:**

- **unique information point dedicated to SMEs**
- **20% fundings on LEIT & SC to SMEs**
- **Semplification of rules (facilitatiing SMEs' access to programs)**
- **Dedicated program: Innovation for SMEs**
- **New Financing tools**



# From FP7 to Horizon 2020

## Continuity

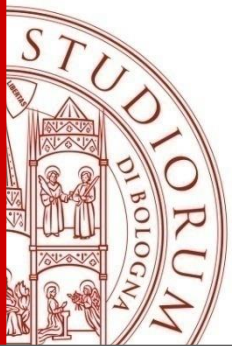
- FET
- ERC
- Marie Curie
- Infrastructures

## Differences

- Deep change of the former Cooperation Programme: part of the themis moved under **Industrial Leadership**, other under **Societal Challenges**

## Potential issues

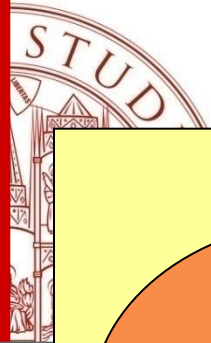
- Some initiatives will be with a **Joint funding** EU + National
- Strong emphasis on **Innovation** → focus on mid-terms goals



# Simplified Funding Model

- 1 reimbursement rate by action:  
Up to 100% for research and innovation actions  
Up to 70% for innovation and programme co-fund actions (non-profit entities up to 100%)
- 1 method for calculation of indirect costs:  
Flat rate of 25% of total direct costs, excluding subcontracting, costs of third parties and financial support to third parties
- Certificate on financial statements:  
When cumulated amount  $\geq 325,000$ EUR (actual costs + average personnel costs)  
To be submitted with the request for payment of balance

# SME instrument



*Phase 1:*  
Concept &  
Feasibility  
Assessment

Idea to concept,  
risk assessment,  
technological &  
commercial feasibility

*Phase 2:*  
Demonstration  
Market Replication  
R&D

Demonstration,  
prototyping, testing,  
market replication, scaling  
up, miniaturisation,  
research

*Phase 3:*  
Commercialisation

Quality label for  
successful projects,  
access to risk  
finance, indirect  
support

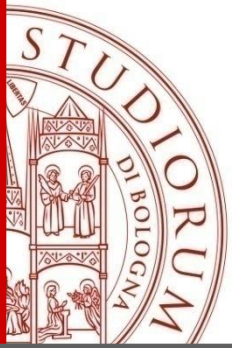
Pre-commercial  
procurement

SME window EU  
financial facilities

IDEA

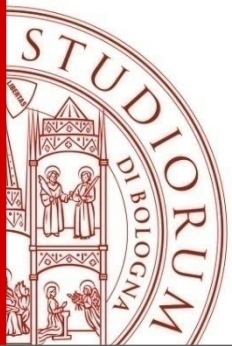
continued support throughout the project

MARKET



- **Pre-Commercial Procurement / Public Procurement of Innovative solutions:**
  - Procurements carried out by procurers in Member States and or Associated countries or
  - Procurements carried out by the EC on its own behalf or in cooperation with MS/AC (not in WP2014-15 yet)
  - PCP/PPI create demand for new solutions and innovations of public interest





# Other issues

- Time-limits:

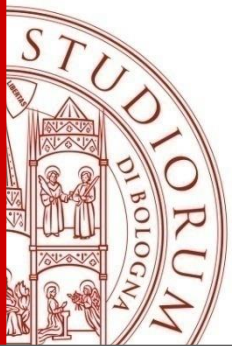
Time to Grant: 5 months (for informing about outcome of evaluation) + 3 months (for signing GA)

Time limit for audits: 2 years after payment of balance

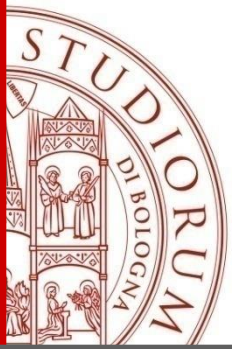
- Financial viability check:

Only for coordinator when grant  $\geq$  500,000 EUR

Financial capacity can be guaranteed by any other legal entity

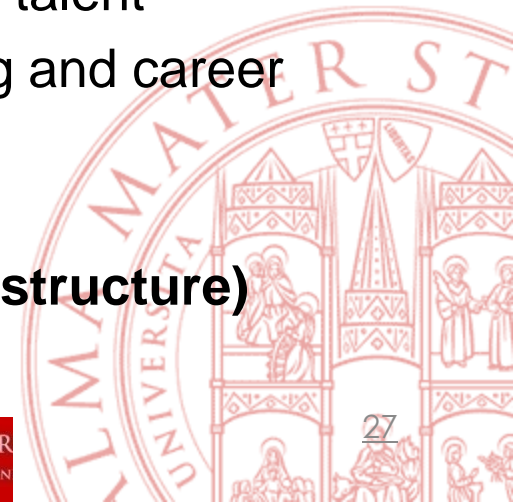


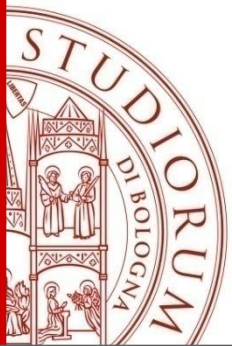
# Horizon 2020 programs...



## Why:

- World class science is the foundation of tomorrow's technologies, jobs and wellbeing
  - **European Research Council - ERC** (Frontier research by the best individual team)
  - **Future and Emerging Technologies - FET** (Collaborative research to open new fields of innovation)
- Europe needs to develop, attract and retain research talent
  - **Marie Curie actions** (Opportunities for training and career development)
- Researchers need access to the best infrastructures
  - **Research infrastructures (including e-infrastructure)** (Ensuring access to world-class facilities)

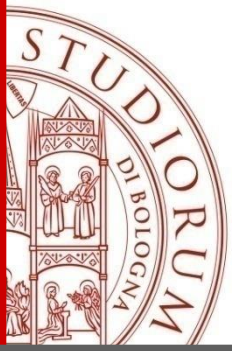




# H2020: Industrial Leadership

## Why:

- Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors
  - **Leadership in enabling and industrial technologies** (ICT, nanotechnologies, materials, **biotechnology**, manufacturing, space)
- Europe needs more innovative SMEs to create growth and jobs
  - **Innovation in SMEs** (Fostering all forms of innovation in all types of SMEs)
- Europe needs to attract more private investment in research and innovation
  - **Access to risk finance** (Leveraging private finance and venture capital for research and innovation)



# H2020: Societal Challenges

## Why:

- **EU policy objectives** (climate, environment, energy, food and bioeconomy etc) cannot be achieved without **innovation**
- Breakthrough solutions come from **multi-disciplinary collaborations**, including social sciences & humanities
- Promising solutions need to be **tested, demonstrated and scaled up**



# H2020: Societal Challenges

- SC\_1: Health, demographic change and wellbeing
- **SC\_2: Food security, sustainable agriculture and the bio-based economy**
- **SC\_3: Secure, clean and efficient energy**
- SC\_4: Smart, green and integrated transport
- **SC\_5: Climate action, resource efficiency and raw materials**
- SC\_6: Inclusive, innovative and reflective societies
- SC\_7: Secure Societies

