### Le iniziative europee collegate ad Horizon 2020

Marco Degani

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### Alcune tessere del puzzle: mappatura iniziative su Horizon 2020

#### Science:

✓ FET Flagships

#### Sociental Challenges:

- ✓ European Institute for Innovation and Technology (EIT)
- ✓ Joint Programming Initiatives (JPIs)
- ✓ European Innovation Partnerships (EIPs)
- ✓ Innovation Public Procurement: Pre-commercial Procurement (PCP) e First-Commercial Procurement (FCP)

#### Competitiveness:

- ✓ European Technology Platforms (ETPs)
- ✓ Joint Technology Initiatives (JTIs) and Private-Public Partnerships (PPPs)

## Alcune tessere del puzzle: mappatura iniziative su Horizon 2020

#### **Societal challenges**

JPI EIT EIP PCP PPI

#### **Industrial leadership**

PPP, JTI ETPs

#### **Excellent science**

**FET Flagships** 

|                                  | INIZIATIVE                          | €                                | STRUMENTI  |
|----------------------------------|-------------------------------------|----------------------------------|--|
| INIZIATIVE<br>STRATEGICHE        | EIP<br>ETP                          |                                  | <ul><li>Agende di ricerca</li><li>piani attuativi</li><li>Agende di<br/>innovazione</li></ul>                            |
| PROGRAMMAZIONE<br>CONGIUNTA      | JPI<br>ERANET<br>COST               | €€ (fin<br>naz +<br>EU)          | <ul><li>Pilot actions</li><li>progetti</li></ul>   |
| RICERCA INDUSTRY-<br>DRIVEN      | EIT KICs<br>PPP                     | €€€<br>(fin.naz,<br>EU, privati) | <ul> <li>Iniziative su triangolo conoscenza (KICs)</li> <li>Progetti su FP7 (trasversali a diversi programmi)</li> </ul> |
| HORIZON 2020: call<br>SPECIFICHE | non ancora identificate<br>dalla EC | €€€€                             | WA VERSITA   |



#### **Blocco Science: FET Flagships Initiatives**

- Ambitious large-scale, science-driven, visionary research initiatives that aim to achieve a scientific breakthrough
- The scientific advance should provide a strong and broad basis for future technological innovation and economic exploitation in a variety of areas, as well as novel benefits for society
- FET Flagships are envisioned to run for at least 10 years
- "Federated effort" between EC institutions, national and regional funding agencies, and where appropriate, with the participation of global partners and industry



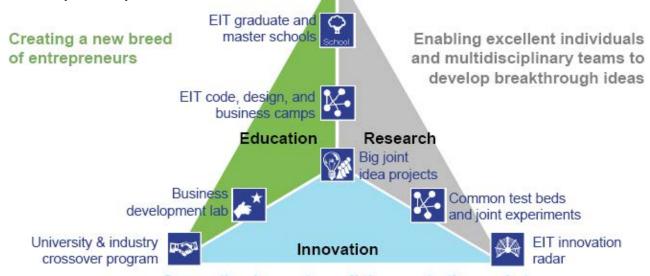
### Blocco Science: FET Flagships Initiatives roadmap and timeline

- 2011: six Flagship Pilots launched -> each will deliver a FET Flagship proposal with a complete feasibility, strategic research roadmap and an implementation description by mid-2012
  - ✓ FuturICT The FuturICT Knowledge Accelerator and Crisis-Relief System: Unleashing the Power of Information for a Sustainable Future
  - ✓ Graphene-CA Graphene Science and technology for ICT and beyond
  - ✓ Guardian Angels Guardian Angels for a Smarter Planet
  - ✓ HBP-PS The Human Brain Project
  - ✓ ITFoM The IT Future of Medicine
  - ✓ RoboCom Robot Companions for Citizens
- 2013: two (maybe three) candidates are to be selected from the six pilots. The two fully-fledged FET Flagships are expected to start in 2013.



#### **Blocco Societal Challenges: EIT**

**Mission:** to grow and capitalise on the innovation capacity and capability of actors from higher education, research, business and entrepreneurship from the EU and beyond through the creation of highly integrated Knowledge and Innovation Communities (KICs).



#### Supporting innovators all the way to the market

Awards

- EIT labeled graduates and PhDs
- Mobility of students and researchers
- Products evolved from research concepts; concepts prototyped on
- Cross-licensing
- Value created by transfer projects

Start-ups with global impact



#### **Blocco Societal Challenges:**

**Example 2** Knowledge and Innovation Communities (KICs)

- Main EIT instrument
- A KIC is a highly integrated, creative and excellence-driven partnership which brings together key actors from the three sides of the knowledge triangle - research, higher education, and innovation-entrepreneurship-business - in order to produce new innovations and new innovation models that inspire others to emulate it.
- KICs address long-term societal challenges
- KICs are networks of networks: each node, called colocation centre, is a local typically national cluster



### EIT roadmap and timeline: KIC calls and SIA

- **2009: first call for KIC proposals** -> 3 KICs funded:
  - ✓ ICT Labs
  - ✓ InnoEnergy
  - ✓ Climate KIC
- **2014:** next call for KIC proposals -> topics under discussion:
  - ✓ Innovation for healthy living and active ageing
  - ✓ Raw materials sustainable exploration, extraction, processing, recycling and substitution
  - ✓ Food4future sustainable supply chain from resources to consumer
  - ✓ Urban mobility
  - ✓ Added-value manufacturing
  - ✓ Smart secure societies



### Joint Programming Initiatives (JPI)

**Public-Public Partnerships** 

- Joint Programming is a new process combining a strategic framework, a bottom-up approach and high-level commitment from Member States. It builds on the experience gained from existing schemes coordinating national programmes.
- Suitable Joint Programming areas are identified by a High Level Group on Joint Programming
- For each initiative, participating countries will start with:
  - ✓ Developing a shared vision for the area;
  - Defining a Strategic Research Agenda (SRA) and SMART objectives (Specific, Measurable, Achievable, Relevant and Time-Bound); and
  - ✓ Preparing for implementation of the SRA by analysing the options, assessing expected impacts and defining the best mix of instruments to be used.



### Joint Programming Initiatives (JPI)

**Public-Public Partnerships** 

- Neurodegenerative Diseases/Alzheimer's
- Agriculture, food security and climate change
- A healthy diet for a healthy life
- Cultural heritage & global change
- Urban Europe
- Clik'EU
- More years, better lives
- Antimicrobial resistance
- Water challenges
- Healthy & productive seas and oceans





#### **European Innovation Partnerships (EIP)**

- European Innovation Partnerships are a new way of bringing together public and private actors at EU, national and regional level to tackle the big societal challenges whilst creating new business opportunities for EU industry.
- Join up all key stakeholders from the demand and supply side; all actors in the innovation cycle, from research to translation (adaptation), deployment and final users, along with those engaged in standardisation and regulation
- Remove bottlenecks stopping good ideas from beng translated into innovative product and services



#### **European Innovation Partnerships (EIP)**

Pilot: Active and Healthy Ageing

- Other EIPs:
  - ✓ Smart Cities and communities
  - ✓ Water
  - Raw materials
  - ✓ Agricultural productivity and sustainability





# Pre-Commercial Procurement (PCP) and Public Procurement of Innovation (PPI)

- PCP/PPI = 20% of EU GDP -> the idea is to exploit this investment potential to stimulate innovation
- Pre-Commercial procurement is an approach for procuring R&D services which enables public procurers to:
  - ✓ share the risks and benefits of designing, prototyping and testing a limited volume of new products and services with the suppliers, without involving State aid;
  - ✓ create the optimum conditions for wide commercialization and take-up of R&D results through standardization and/or publication.
  - ✓ Pool the efforts of several procurers;
- First experiments: ICT call7, Security call 2012, ...