



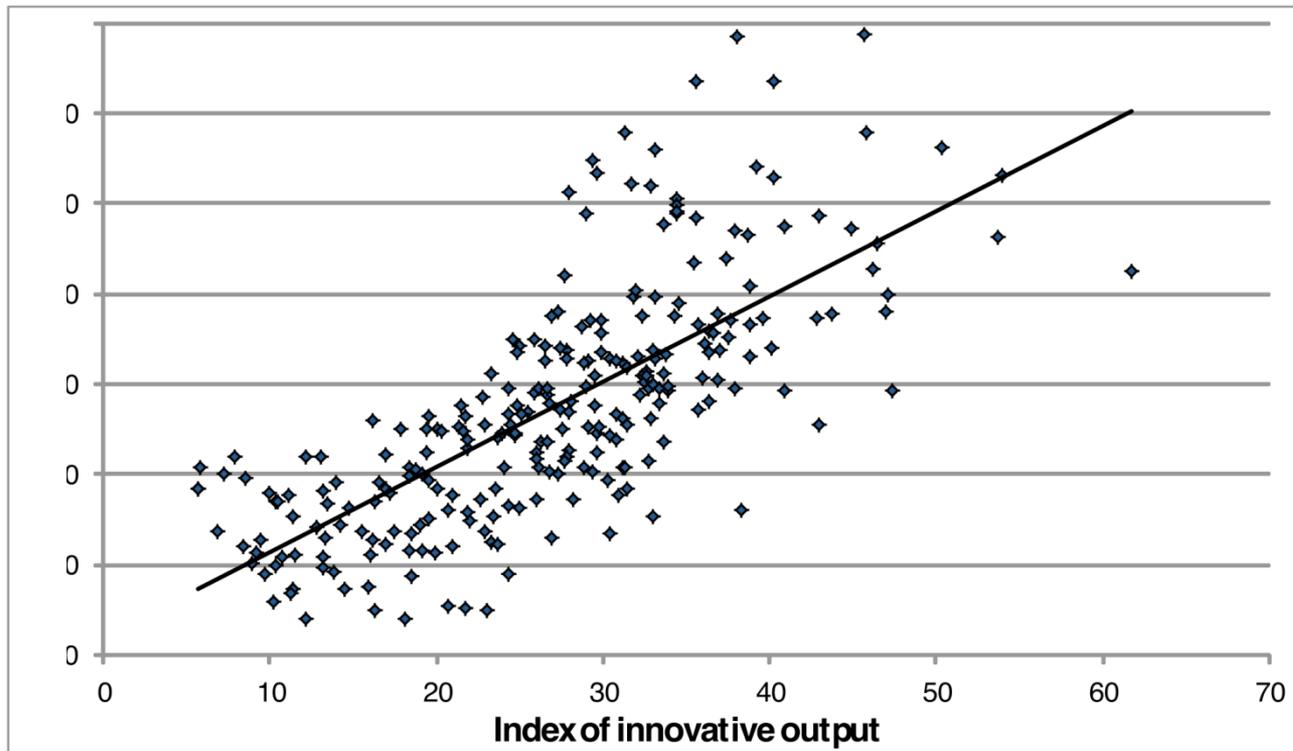
HORIZON 2020 Financial Instruments

2014-2020

Research Infrastructures
Universities
Incubators

Dr Julia Taddei
Assistant to the Director-General
DG Research and Innovation

Innovation vs. Economic Output



Source: Mikel Navarro et al, Basque Competitiveness Institute, 2010

What is Horizon 2020?

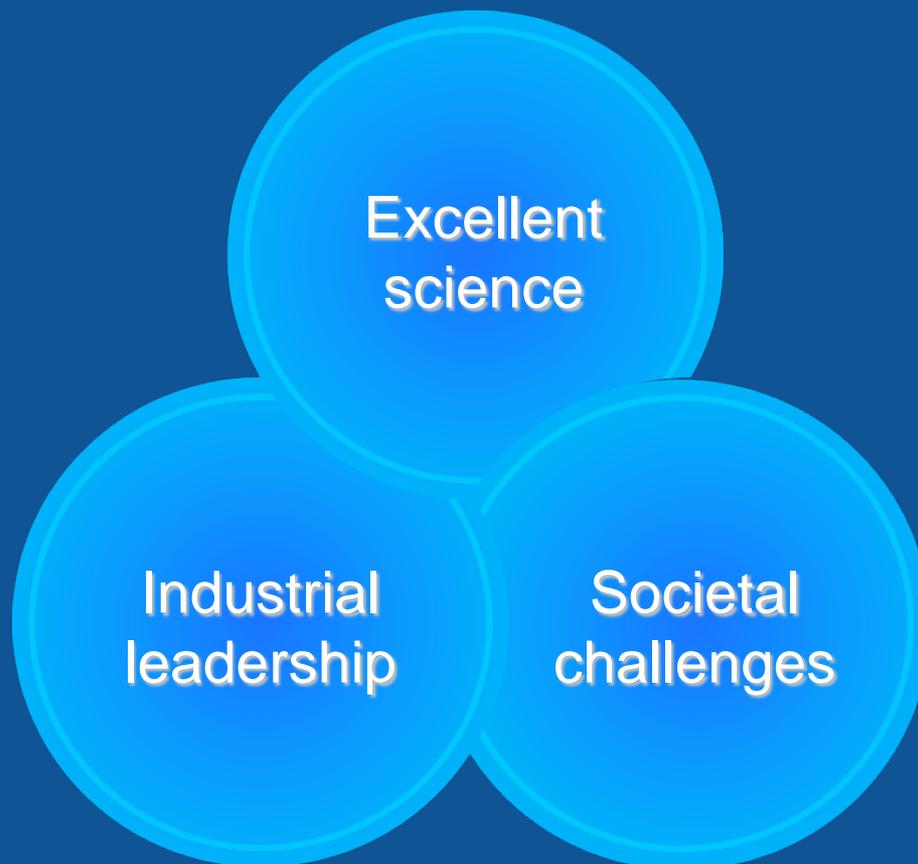
- The new European Union programme for research and innovation for 2014-2020
- A foreseen budget of just over €79 billion
- A core part of Europe 2020, Innovation Union & European Research Area:
 - Responding to the economic crisis to invest in jobs and growth
 - Addressing people's concerns about their livelihoods, safety and environment
 - Strengthening the EU's global position in research, innovation and technology

What is new?

- **Major simplification** - for all companies, universities, institutes in all EU countries and beyond
- **An integrated programme coupling research to innovation** – support from research to retail, bringing together three separate programmes/initiatives*
- **Challenge based** - tackling major challenges facing EU society, e.g. health, clean energy and transport

* The 7th Research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)

Three priorities





Priority 1.

Excellent science

- Why?
- World class science is the foundation of tomorrow's technologies, jobs and wellbeing
- Europe needs to develop, attract and retain research talent
- Researchers need access to the best infrastructures



Priority 2. Industrial leadership

- Why?
- Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors
- Europe needs to attract more private investment in research and innovation
- Europe needs more innovative small and medium-sized enterprises (SMEs) to create growth and jobs



Priority 3. Societal challenges

- Why?
- Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport, 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

Why EU-level financial instruments?

- ❑ **Effective and efficient use of EU resources**
 - ✓ **Ensuring financial sustainability of our policies in a context of scarce budgetary resources**
 - ✓ **Leverage effect: Policy impact widened via financial intermediaries attract additional investors**
 - ✓ **Multiplier effect: public investments increase the effective demand, supply and therefore employment, consumption and growth**
 - ✓ **Political priority (Europe 2020, other declarations)**

FI proposals for 2014-2020 MFF

(*) current prices

Centrally managed by COM

Horizon 2020
Equity and Risk-Sharing Instruments
€4 bn (*)

Competitiveness & SMEs
(COSME)
Equity & guarantees
€1.4 bn (*)

Creative Europe
Guarantee Facility
€210 mn

Social Change
& Innovation
Micro-finance €192 mn

Erasmus for all
Guarantee Facility
€881 mn

Connecting Europe Facility (CEF)
Risk-sharing (e.g. project bonds) and equity
instruments

Budget not yet decided

Shared management

Instruments under Structural and
Cohesion Funds

EU level

Off-the shelf instruments

Tailor-made instruments

Significantly higher amounts than
currently

Research
& Innovation

Growth, Jobs
and Social
Cohesion

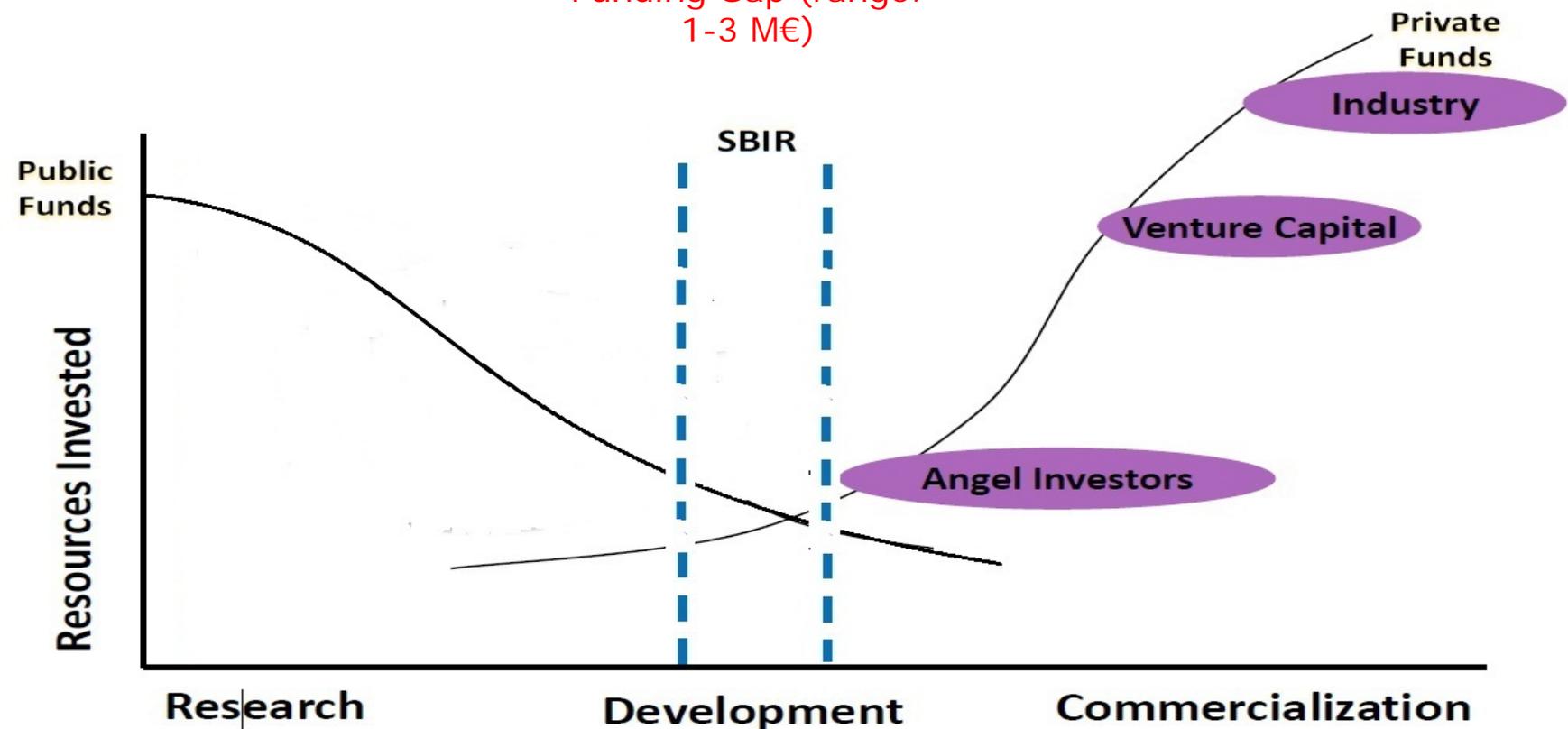
Infrastructure

Where to invest?

University

Small

Funding Gap (range:
1-3 M€)



What to expect in the debt and equity facilities in H2020

Full-spectrum approach:

- Research Infrastructure (RSFF, TA)

- from tech transfer and proof-of-concept

- to prototypes, large-scale demonstrators, first-of-a-kind plants
start-ups ...

Targeting of sectors and policies via ring-fenced budget top-ups from other parts of H2020, MFF frameworks/programmes/budget lines, regions/MS, JTIs (etc), other initiatives ...

Closer links with regional policy

— resource pooling with MS Structural Funds foreseen in H2020, CSF (and in
COSME)

I. Direct Financing to Research Infrastructures: Why an EU Approach?

- To address collectively the complexity and cost of the design and development of new world class research infrastructures
- To open access to the research infrastructures existing in the individual Member State to all European researchers
- To avoid duplication of efforts and to coordinate and rationalise the use of these research infrastructures
- To trigger the exchange of best practice, develop interoperability of facilities and resources, develop the training of the next generation of researchers
- To connect national research communities and increase the overall quality of the research and innovation
- To help pooling resources so that the Union can also develop and operate research infrastructures globally



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Universities and Research Infrastructures can benefit from RSFF and CEF...

Risk sharing finance facility: a first lost piece guarantee instrument to increase the volume financed by the private sector.(XXX euros)

RSI same for lower amount (XXX Euros)

Connecting Europe Facilities (e. g project bonds)

... and accompanying measure For for Access to risk Finance such as:

- Technical assistance for second-tier financial intermediaries (i.e. banks)**
- R&I Advisory Service” (pilot now running with EIB under RSFF)**
...
- To improve Investment-readiness and “bankability booster” schemes...**
- ...in particular of Research Infrastructure:**

What is the ERA?



- A Unified Research Area Open to the World
- Based on the Internal Market
- Free Circulation of Researchers, Knowledge & Technology

What is ERA for?

- Strengthening Science & Technology
- Enhancing Competitiveness
- Enhancing Capacity for Grand Challenges



ERA Priority 2

Optimal transnational co-operation and competition
→ effective investment in and use of research infrastructures

Specific objectives addressed by the ERA Communication are:

- To ensure national commitments to the implementation of the ESFRI Roadmap
- To overcome obstacles to the construction and operation of Research Infrastructures
- To ensure access for researchers to Research Infrastructures across Europe

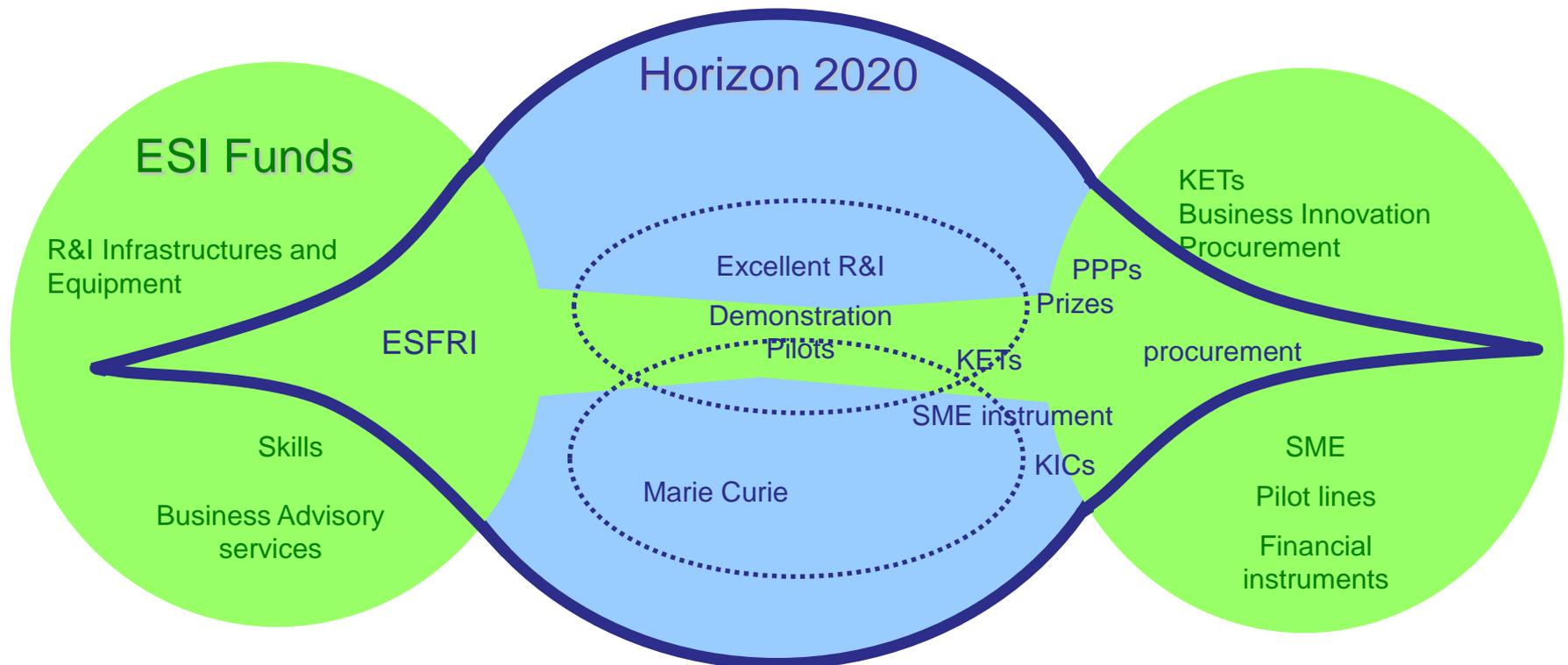


From FP7 to Horizon 2020

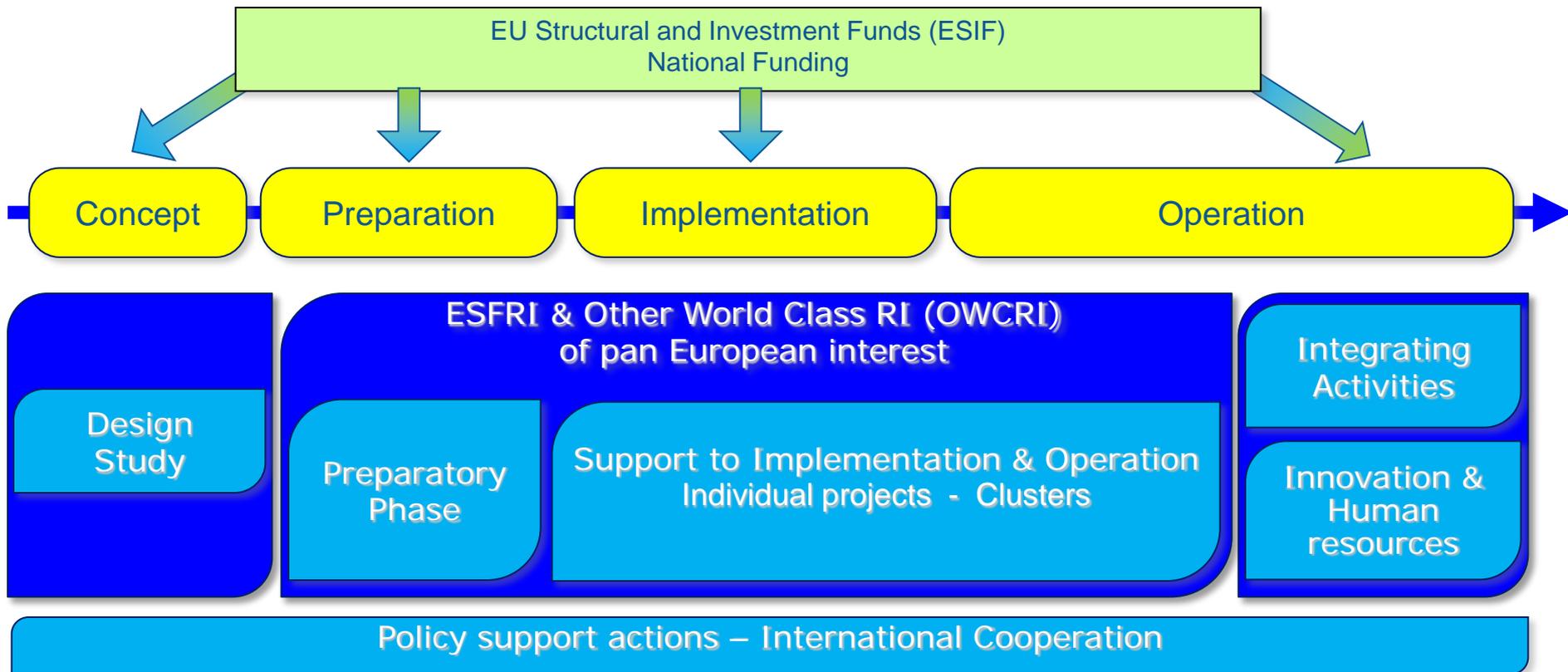
- More focused support to the implementation and operation of world-class infrastructures such as ESFRI projects
- Broader access to and deeper integration of European research infrastructures
- Foster the innovation potential of research infrastructures
- Widen the participation to pan-European research infrastructures
- More support to e-infrastructures
- Reinforce policy support to European strategy on research infrastructures
- Develop international dimension of the actions

Combining "normal" H2020 projects with ESIF

... through sequential or parallel projects



A Coherent Toolbox of Activities



II. Indirect Financing: Boosting Incubators in universities

- to give more job opportunities for students in universities
- to ensure the continuity between research, development and innovation
- for a higher economic impact of Universities
- more financial sustainability of the research investment
- linking research with the citizen needs

SMEs:

- 20.7 Million SMEs in the non-financial business economy representing around 99% of all enterprises in EU
- Provide more than two thirds of jobs (more than 87M) in the private sector
- SMEs account for more than 58% of the total gross-value added

Why is the EU supporting SMEs?

- Lower capacity in EU to create new companies in emerging sectors – Access to finance, markets and a level playing field remains a problem
- Small groups of SMEs contribute disproportionately to overall growth in employment
- SMEs active across borders create more jobs and are more innovative

SMEs and innovation

- Less than 50% of industrial partners use the publicly funded applied research projects strategically
- Only about 22% of SMEs participating in EU research programs are strategic innovators
- Most academics engage with industry to further their research rather than to commercialise their knowledge
- Results are not exploited because projects were not designed for exploitation
- There is a strong relationship between internationalisation and innovation, but SMEs are not aware of internationalisation support programmes.
- The information environment of (European) R&D programmes is unattractive and repelling to SMEs

SME support: integrated approach

20 %
budgetary
target in
LEITs & SC

Collaborative
projects
13%

SME instrument
7%

'Innovation in
SMEs'

Eurostars II
Enhancing Innovation
Capacity
Market-driven Innovation

Access to Risk Finance



Financial instrument for start up

RSI: A Guarantee instrument for innovative SMEs and small mid caps Lending (Budget...)

GIF: An equity instrument with a particular focus on SME (Budget 400 M Euros)

TTFF: A Pilot facility launched under H2020 in 2014 to improve technological transfer.



Phase 3+coaching → 2% budget

Phase 1: Concept and feasibility assessment

Input:
"Business Plan 1"
(~ 10 pages)
10% budget

Activities:
Feasibility of concept
Risk assessment
IP regime
Partner search
Design study
Pilot application
etc.

10% success →

Output: elaborated
"Business plan 2"

Lump sum: 50.000 €
~ 6 months

Phase 2: R&D, demonstration, market replication

Input: "Business plan 2" plus description of activities under Phase 2 (~ 30 pages)
88% budget

Activities:
Development, prototyping, testing, piloting, miniaturisation, scaling-up, market replication, research

30-50% success →

Output: "investor-ready business plan 3"

0.5-2.5 M€ EC funding
~ 12 to 24 months

Phase 3: Commercialisation

Promote instrument as quality label for successful projects
Facilitate access to private finance

Support via networking , training, information, addressing i.a. IP management, knowledge sharing, dissemination

SME window in the EU financial facilities (debt facility and equity facility)

Possible connection to Procurement

No direct funding

SME Instrument – Main features:

- Targeted at all types of innovative SMEs showing a strong ambition to develop, grow and internationalise
- Only SMEs will be allowed to apply for funding and support
- Single company support possible
- No obligation for applicants to sequentially cover Phase 1 and Phase 2.
- 70% funding (exceptions possible)

Collaborative projects and SMEs

- Continuation of the Cooperation Programme under FP7. Intended to facilitate collaborative research across Europe through transnational consortiums of industry, that consist of minimum of three different partners (legal entities) from three different EU member-states or countries associated to Horizon 2020.
- Same reimbursement rate for all*: Up to 100% of eligible cost (limited to maximum of 70% for innovation actions), 25% flat-rate for indirect costs
- Simplifying participation for SMEs:
 - A unit cost system in the rules for SME owners and physical persons without a salary
 - Simplification regarding personnel costs like simplified provisions on productive hours and clear minimum rules on time-recording

* Exception for non-profit organisations



HORIZON 2020

Thank you
for your attention!

Find out more:
www.ec.europa/research/horizon2020