



HORIZON 2020

**Highlights and
Expectations from
participants**

2014-2020



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The Multiannual Financial Framework 2014-2020:

European Council conclusions, 8 February 2013

Key challenge: stabilise the financial and economic system while taking measures to create economic opportunities

1. Smart & inclusive growth (€451 billion)



2. Sustainable growth, natural resources (€373 billion)

3. Security and citizenship (€16 billion)

4. Global Europe (€58 billion)

5. Administration (€61.6 billion)



What's new

- **A significant increase of EU budget** for funding of research and innovation to €79 billion in current prices (increase in real terms of almost 30%)
- **A single programme** bringing together three separate programmes/initiatives*
- **Coupling research to innovation** – from research to retail, all forms of innovation
- **Focus on societal challenges** facing EU society, e.g. health, clean energy and transport
- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond

* 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)

Coupling research to innovation


- **Innovation as integral part** of the activities
- **A broad approach to innovation:** meshing research and technological development with product innovation, service innovation ... social innovation, innovation in design ... business model innovation ...
- **Both technological & non-technological innovation;
Both incremental & disruptive innovation**

Stronger support for market uptake of innovation...



- ☞ **Activities closer to users and markets:**
prototyping, testing, demonstrating, piloting, large-scale product validation, market replication ...
- ❑ **Societal Challenges:** "new focus on innovation-related activities, such as piloting, demonstration, test-beds, and support for market uptake"
- ❑ **Industrial Leadership:** "emphasis on R&D, large-scale pilots and demonstration activities, test beds and living labs, prototyping and product validation in pilot lines"
- ❑ **SME instrument:** "particular focus on demonstration activities and market replication in its second phase"
- ❑ Closer-to-market activities could obtain funding also via the **debt and equity financing facilities**

Stronger support for market uptake of innovation...

Partnering for greater impact

-  Public-private partnerships, public-public partnerships; EIT Knowledge and Innovation Communities; Taking account of agendas of European Technology Platforms, of European Innovation Partnerships

Dedicated SME instrument

-  Competitive, business-oriented, focused on creating impact, bringing high-potential innovations closer to the market
-  focus on demos and market replications in its second phase, and successful projects shall also receive support to facilitate access to further private and public investment

Specific exploitation support and services

Innovation procurement

-  Pre-commercial procurement (PCP) and public procurement of innovative solutions (PPI)

Debt and equity facilities

-  loan funding and risk capital

Three priorities



Proposed funding (€ million, 2014-2020)*

<i>European Research Council (ERC)</i> Frontier research by the best individual teams	13 095
<i>Future and Emerging Technologies</i> Collaborative research to open new fields of innovation	2 696
<i>Marie Skłodowska-Curie actions (MSCA)</i> Opportunities for training and career development	6 162
<i>Research infrastructures (including e-infrastructure)</i> Ensuring access to world-class facilities	2 488

* All funding figures in this presentation are subject to the pending Multiannual Financial Framework Regulation by the EP and the Council

Proposed funding (€ million, 2014-2020)

<i>Leadership in enabling and industrial technologies (LEITs)</i> (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)	13 557
<i>Access to risk finance</i> Leveraging private finance and venture capital for research and innovation	2 842
<i>Innovation in SMEs</i> Fostering all forms of innovation in all types of SMEs	616 + complemented by expected 20% of budget of societal challenges + LEITs and <i>'Access to risk finance'</i> with strong SME focus

Proposed funding (€ million, 2014-2020)

Health, demographic change and wellbeing	7 472
Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the Bioeconomy	3 851
Secure, clean and efficient energy *	5 931
Smart, green and integrated transport	6 339
Climate action, environment, resource efficiency and raw materials	3 081
Inclusive, innovative and reflective societies	1 310
Secure societies	1 695
<i>Science with and for society</i>	<i>462</i>
<i>Spreading excellence and widening participation</i>	<i>816</i>

* Additional funding for nuclear safety and security from the Euratom Treaty activities (2014-2018)

Innovation Investment Package

€22 billion Innovation Investment Package

Joint Technology Initiatives (under Article 187)

- Innovative Medicines Initiative 2
- Clean Sky (Aeronautics) 2
- Fuel Cell and Hydrogen 2
- Bio-based Industries
- Electronic components and systems

Joint programmes (under Article 185)

- European and Developing Countries Clinical Trials Partnership (EDCTP) 2
- European Metrology Research Programme 2
- Eurostars (for SMEs) 2
- Active and Assisted Living 2

Benefits of Partnerships

Joint Technology Initiatives (with industry)

- Industry driven research agenda
- Fixed budget for 7 years to leverage more industry investment
- Sector structuring to achieve impact
- Coverage of longer value chains and interrelated sectors
- Higher level of SME participation (30%) than in FP7
- Links and synergies with Structural and Investment Funds

Joint programmes (with Member States)

- Link to national programmes
- Leverage effect
- Industry involvement
- Cross-border collaboration

Simplification: Rules for Participation

1. A single set of rules:

- ✓ Adapted for the whole research and innovation cycle
- ✓ Covering all research programmes and funding bodies
- ✓ Aligned to the Financial Regulation, coherent with other new EU Programmes

2. One project – one funding rate

- ✓ Maximum of 100% of the total eligible costs (except for innovation actions, where a 70% maximum will apply for profit making entities)
- ✓ Indirect eligible costs: a flat rate of 25% of direct eligible costs

3. Simpler rules for grants

- ✓ broader acceptance of participants accounting practices for direct costs, flat rate for indirect costs, no time-sheets for personnel working full time on a project, possibility of output-based grants

4. Fewer, better targeted controls and audits

- ✓ Lowest possible level of requirements for submission of audit certificates without undermining sound financial management
- ✓ Audit strategy focused on risk and fraud prevention

5. Shorter time to grant – 8 months and 6 months for fast track

Strong participation by SMEs

- **Integrated approach** - around 20% of the total budget for societal challenges and LEITs to go to SMEs
- **Simplification** of particular benefit to SMEs (e.g. single entry point)
- A **new SME instrument** will be used across all societal challenges as well as for the LEITs
- A dedicated activity for research-intensive SMEs in **'Innovation in SMEs'**
- **'Access to risk finance'** will have a strong SME focus (debt and equity facility)

Horizon 2020: Preconditions for success

On the input side, a successful H2020 requires:

- **Excellent participants**
 - Leading public research centres, industrial R&D champions, innovative SMEs, excellent universities, global centres of excellence
- **A productive, diverse, balanced participant mix involving participants from**
 - A variety of sectors
 - A large number of EU/non-EU countries/regions
 - A wide range of disciplines
- **Responsive participants collaborating pro-actively with the Commission to ensure a short time-to-grant & pay**
 - Submission of administrative documents
 - Submission of intermediate/final reports

On the input side, a successful H2020 requires:

- **Ambitious projects focused on research + research valorisation, i.e. real impact (impact criterion for proposal evaluation generally beefed up)**
- **Projects of strategic importance for participants, non-marginal projects**
- **Projects with critical mass, achieving a minimum efficient scale in terms of number of partners, budget**
- **Projects marked by real European added value, EU input additionality: without EU funding, projects would not take place or be smaller, postponed, less ambitious, involve fewer partners**
- **High-quality inter-disciplinary research**

On the output side, a successful H2020 requires:

- **The achievement of tangible:**
 - **Outputs**
 - **Results**
 - **Impacts**
- **This includes:**
 - **Tangible training and capacity-building effects**
 - **E.g. substantial contributions to the training of large numbers of researchers**
 - **E.g. significant improvements in participating organisations' R&D and innovation capabilities**

On the output side, a successful H2020 requires:

- **Large-scale excellent scientific and technological output**
 - E.g. large numbers of excellent scientific publications
 - E.g. numerous technological outputs and innovations (patent applications; registered designs; prototypes, demonstrators, pilots; technical standards; new products, processes, services; spin-offs)
- **Large-scale downstream macro-economic effects**
 - E.g. boosting growth, productivity, competitiveness
- **Large-scale downstream social effects**
 - E.g. increasing employment
- **Large-scale downstream environmental effects**
 - E.g. saving energy, reducing waste

Addressing
Societal challenges

On the output side, a successful H2020 requires:

- **Support for EU and national policies**
- **Structuring effects: durable changes in the European R&D&I landscape**
 - **E.g. well-structured, durable cross-border links and networks integrated into global innovation networks**

On the output side, a successful H2020 requires:

- **This assumes a revamped monitoring and evaluation strategy:**
 - **Strategic**
 - Focused on key priorities
 - **Comprehensive**
 - Covering all parts of H2020
 - **Coherent**
 - E.g. in terms of methodologies
 - **Evidence-based**
 - Data-driven
 - Automatic data capturing
 - Pro-active participant reporting



HORIZON 2020

**Thank you
for your attention!**

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