



HORIZON 2020

**Highlights and
Expectations from
participants**

2014-2020



Wolfgang Burtscher
Deputy Director-General
DG Research and Innovation

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)

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