



# HORIZON 2020

## Lessons Learned from the First Calls



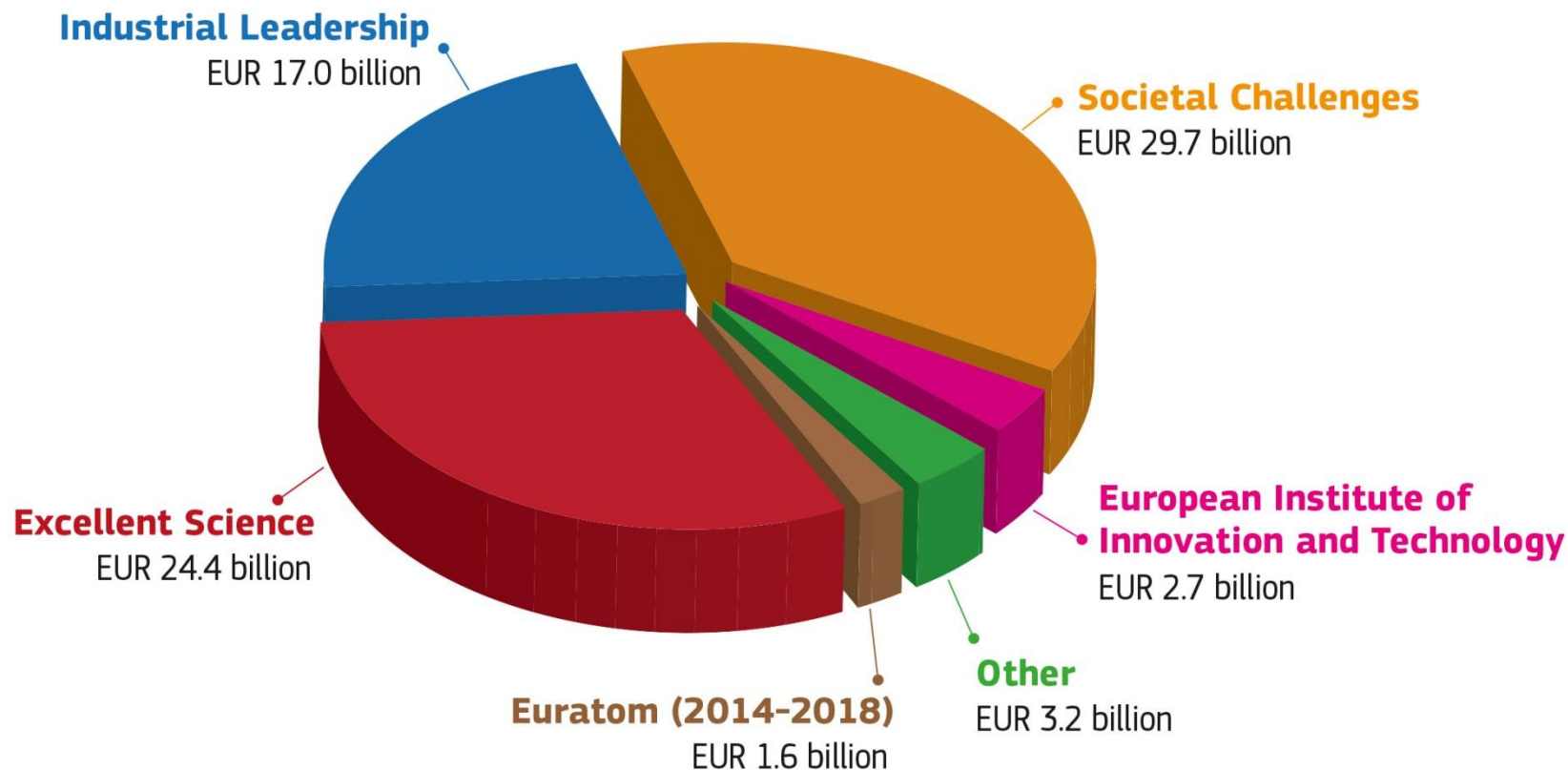
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**European Commission**

# Horizon 2020

- **The new European Union programme for research and innovation for 2014-2020**
- **A budget of just over €79 billion;** 30 per cent higher in real terms than the 2007-2013 period
- **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

# € 79 billion from 2014 to 2020

## HORIZON 2020 BUDGET (in current prices)





# What is new?

- **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



# New approach to work programmes and calls

## More strategic work programmes

- Focusing on areas where EU level action has greatest impact
- With a coherent set of actions from research to innovation
- Greater integration across different parts of Horizon 2020

## Less prescriptive calls

- Stronger emphasis on impact
- Stimulating inter-disciplinary projects

## Two year work programmes



# Work Programme 2015

## Funding for calls

### Excellent Science Pillar: ~ € 2.7 billion

- **European Research Council** (4 calls) **€ 1 662 million**
- **Marie Skłodowska-Curie actions** (4 calls) **€ 745 million**
- **Future and Emerging Technologies (FET)** (1 call) **€ 58 million**
- **European Research Infrastructures (including e-Infrastructures)**  
(4 calls) **€ 275 million**

# Work Programme 2015

## Funding for calls

### **Industrial Leadership Pillar: ~ € 1.8 billion**

#### Leadership in Enabling and Industrial Technologies (LEITs)

- **Information and Communication Technologies (ICT)**  
(3 calls) **€ 733 million**
- **Nanotechnologies, Advanced Materials, Biotechnology and Production** (5 calls) **€ 564 million**
- **Space** (5 calls) **€ 104 million**
- **Access to Risk Finance (financial instruments)**  
(€ 362 million NOT in calls)
- **Innovation in small and medium-sized enterprises** (1 call)  
**€ 30 million**
- **[SME Instrument € 260 million]**

# Work Programme 2015

## Funding for calls

### **Societal Challenges Pillar: ~ € 2.3 billion**

- **Health, demographic change and wellbeing (3 calls) € 573 million**
- **Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy (3 calls) € 190 million**
- **Secure, clean and efficient energy (4 calls) € 596 million**
- **Smart, green and integrated transport (3 calls) € 253 million**
- **Climate action, environment, resource efficiency and raw materials (3 calls) € 339 million**
- **Europe in a changing world – inclusive, innovative and reflective societies (5 calls) € 123 million**
- **Secure Societies (4 calls) € 196 million**

### **In addition**

- **Spreading Excellence and Widening Participation (1 call) € 65 million**
- **Science with and for Society (4 calls) € 45 million**



# Work Programme Update for 2015

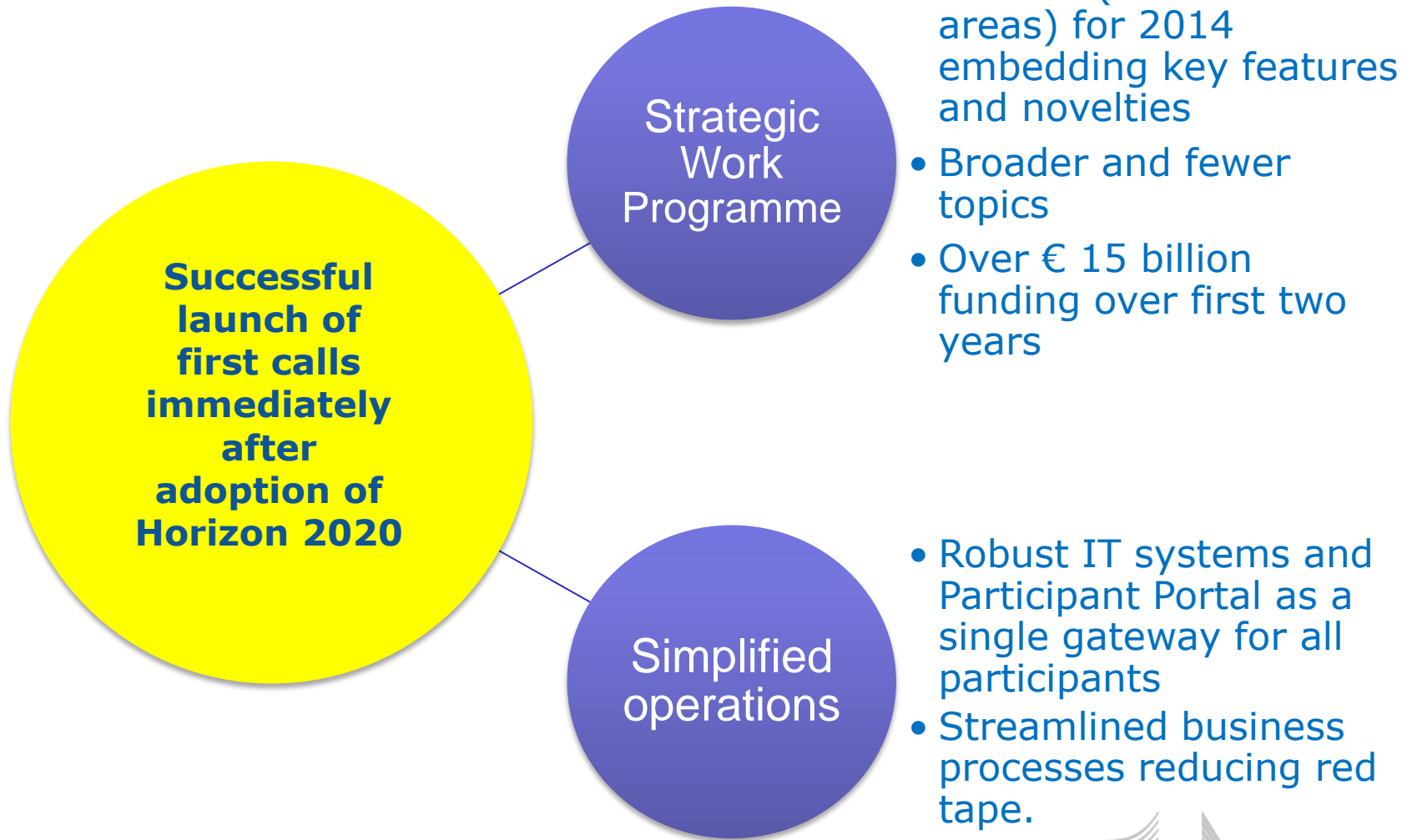
- **New call: Fast Track to Innovation:**

- A last push to promising ideas before entering the market
- Substantial industry involvement
- Open from January 2015 to small consortia of three to five organisations
- EU support of €100 million

- **Five inducement prizes** to induce technological breakthroughs in key areas:

- Material: Reduction of Particulate Matter Air Pollution – €3 million
- Reduction of Use of Antibiotics for Respiratory Infection – €1 million
- Food-Scanner Prize – €1 million
- Collaborative Sharing of Spectrum – €0,5 million
- Optical transmission – €0,5 million

# Launch of Horizon 2020: A major achievement



# Response to Horizon 2020 calls in first 10 months

- More than **2.1 million visits on Participant Portal** in December 2013 and increasing in the following months, **just over 3 million visits** per month
- Ca. **34,500 proposals** submitted
- Nearly **11,000 expert evaluators** contracted (74,000 experts registered)
- Attracted **newcomers** and evidence of **increase in industry participation**
- High oversubscription reflect the **popularity of Horizon 2020**



# Lessons Learned from first H2020 calls

**Analysis of the experiences with the first calls** with the objectives:

- Take-stock
- Prepare (necessary) corrective measures
- Feed into Work Programme cycle for 2016-17

## **Based on**

- **Statistical analysis of 33 concluded calls** (approx. half of calls launched in 2014, but comprising only ca. 5,250 proposals) covering the first six months of operation
- Feedback from **Commission services and Executive Agencies**
- **Observers' reports** from evaluations
- Feedback from some **stakeholders, certain NCPs and some Member States**

# Lessons Learned: Work Programme and Information for applicants

**Objective:** Easy retrieval of information and simplified access for all applicants

**Findings:** **Participant Portal valued** by R&I community, but **work programme needs to be more visible**

Delays in **handling questions and providing information** to NCPs, applicants etc.

## Recommendations:

- ✓ Enhance presentation of calls in Participant Portal
- ✓ Continuous improvement of Horizon 2020's IT system.
- ✓ Reinforce Commission efforts to help NCPs do their job
- ✓ Update regularly Frequently Asked Questions (FAQs)



# Lessons Learned: Response to calls

**Objective:** Challenge-based calls allowing applicants considerable freedom to come up with innovative solutions and focusing more on impact

**Findings:** **Challenge based approach liked** by R&I community

**Newcomers** attracted and evidence of increase in **industry participation**

**Over-subscription** (8x available budget, 5x under FP7). However, picture remains largely diverse! Around 1/3 of good proposals (i.e. above threshold) can be funded!

## Recommendations:

- ✓ Further analysis necessary
- ✓ Maintain the challenge-based approach, but improve clarity of topic descriptions (impact statements)
- ✓ Adapt call conditions for two-stage evaluations ensuring a 1:3 (budget-wise) success rate in the second phase

# Lessons Learned: Proposal Evaluation

**Objective:** High quality of evaluation process

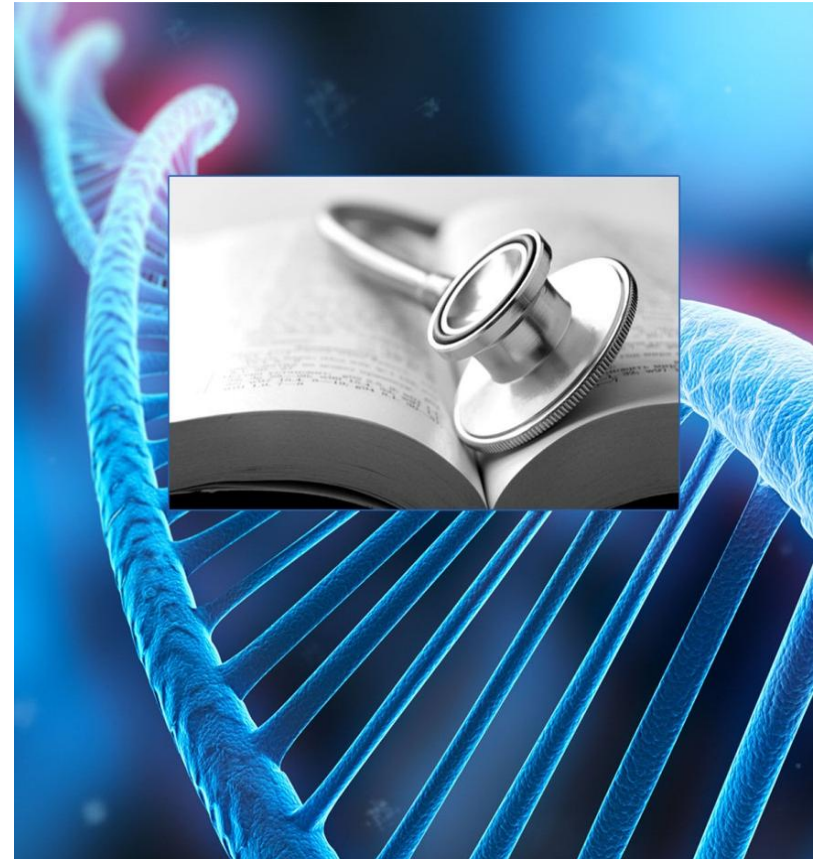
**Findings:** According to observers' reports **overall excellent quality of evaluations with good mix of experts**.  
Some concerns regarding **interpretation of criteria and new concepts** (e.g. innovation management).  
**Lack of certain expertise** in database (women, experts in innovation and business planning)  
Difference in level of **feed-back provided** to applicants

## Recommendations:

- ✓ Update briefings and guideline documents, including information for applicants, and evaluation process in response to feedback received
- ✓ Reinforce efforts to attract experts
- ✓ Develop a set of minimum standards on feedback

# Lessons Learned: Further recommendations

- ✓ Carry out further monitoring of implementation processes (e.g. TTG), particularly when they affect applicants
- ✓ Address **key features and novelties** upstream in the work programme preparation cycle to ensure embedding in priority setting as well as implementation



# Key feature: Covering the full research & innovation cycle

## Work Programme 2014-2015

- ✓ **More support for innovation, activities close to market and demand side approaches**

*€2 billion allocated to 100 topics for Innovation Actions (IA) in Societal Challenges and LEITs; €120+ million for innovation procurement (PCP/PPI); five inducement prices (2015)*

- ✓ **Engagement of industry**

*€800 million for contractual Public-Private Partnerships; €516 million for SME instrument topics; more than €1.7 billion investment in JTIs; €630 million goes to debt and equity facilities; substantial investment in P2Ps*

## First calls:

- ✓ Increased industry participation
- ✓ Good uptake of IA, other new innovation instruments to be monitored
- ✓ Need to continue and, where appropriate, reinforce broad approach to innovation (service, social innovation etc.)

# Key feature: SMEs

## Work Programme 2014-2015

- ✓ **SME opportunities across the whole work programme**, notably in Societal Challenges and LEITs (20% budgetary target) plus measures to enhance SME innovation capacity and debt and equity financial instruments (in addition Eurostars Joint Programme)
- ✓ **SME instrument**: around €512 million through 13 open topics of Societal Challenges and LEITs

### First calls:

- ✓ Around 18% of funding for SMEs, but full impact of SME instrument still to kick in
- ✓ Successful launch of SME instrument with high demand: 94% single company applications at first cut-off date for Phase 1 (feasibility assessment); low success rate (6%), but every other 'good' proposal funded (i.e. 49% of applications above threshold)





# Key feature: Social Sciences and Humanities

## Work Programme 2014-2015

**SSH aspects embedded in calls and lines of activity of all WP parts, including through addressing end-user perspectives**

- ✓ **199 SSH-flagged topics** (37% of the topics) in Work Programme representing a budget share of 5.3 % (considerably larger than FP7)
- ✓ Significant opportunities in **Marie Skłodowska-Curie** actions (about 11 % of budget to SSH) and in **ERC** (17 % to SSH; from 2015 no pre-defined budget envelope for scientific domains)

## First calls:

- ✓ SSH expertise well represented in evaluation panels for SSH-flagged topics
- ✓ SSH coverage in proposals can be enhanced by, for example, improving wording of WP topic descriptions and evaluator briefing

# Key feature: Gender

## Work Programme 2014-2015

### Explicitly integrated in all the sections of Work Programme

- ✓ Total of **99 gendered topics** (16% of total in Work Programme)
- ✓ **Specific call** under Science with and for Society (€ 9.5 million)
- ✓ **Topics are flagged** to ease access for applicants

### First calls:

- ✓ Still room to improve gender balance in evaluation panels
- ✓ Gender issues more frequent in flagged topics
- ✓ Continued efforts needed to address gender dimension in preparation and implementation of work programme

# Key feature: International cooperation

## Work Programme 2014-2015

**General openness to international participants & targeted activities in all relevant WP parts**

- ✓ Topics with **international participation as a recommendation (20% of topics)**
- ✓ Relying more on **topics with critical mass and multi-lateral approaches (e.g. Health, Resource Efficiency)**

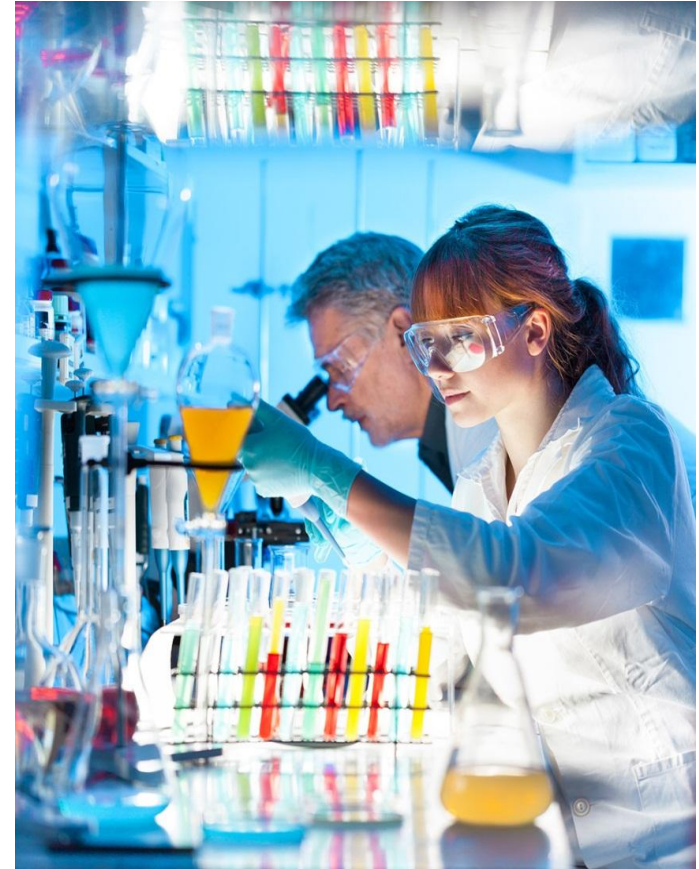
## First calls:

- ✓ Significant drop in participation of international partners (no automatic funding for emerging economies – BRIC & Mexico)
- ✓ Continued good level in ERC and MSCA.
- ✓ Need to increase international cooperation activities (flagship initiatives together with accompanying actions)



# Lessons Learned – Next Steps

- ❑ Tackle **issues that can be adapted in the short term** and strive for continuous improvements
- ❑ **Further in-depth analysis and feedback** from a wider audience, notably applicants
- ❑ Take full account of 'Lessons Learned' in the **preparation of the work programme 2016-2017** that is to be adopted in the third quarter 2015 (calls for 2016)



# For further information

- **Participant Portal**

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

- **Helpdesk**

<http://ec.europa.eu/research/enquiries>

- **Expert evaluators needed!**

<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>

- **Learn more about Horizon 2020**

<http://ec.europa.eu/horizon2020>

**Thank you for your attention!**