



Horizon 2020 evaluation shows that investment in EU research and innovation greatly pays off

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Horizon 2020, the EU's research and innovation programme running from 2014 to 2020 with a budget of nearly €80 billion, made a major contribution to building an EU society and economy rooted in knowledge and innovation and benefitted Europeans far beyond what could have been achieved at national or regional level.

Enabling rapid response to the COVID-19, Ebola and Zika outbreaks and making a decisive contribution to climate science are just some examples of the tangible impact of Horizon 2020. Each euro in costs linked to the programme will ultimately bring five euros in benefits to EU citizens by 2040, proving the high value for money of investment in research and innovation for the European society. These are some of the key conclusions of the ex-post evaluation of Horizon 2020 published today.

Making a difference for the people

Horizon 2020 funded more than 35 000 projects over seven years, calls attracted over a million individual applications from 177 countries. The programme played a crucial role in fighting climate change and saw 64.4% of its budget invested in sustainable development. Horizon 2020, together with its predecessor FP7, is the second largest provider of climate science in the world.

The programme financed concrete solutions in various domains, such as novel hydrogen-fuelled transports, mRNA vaccines, photonics and micro- and nanoelectronics. Almost 4,000 patents and trademarks resulted from Horizon 2020 funding. The European Innovation Council stood out for its unprecedented support to potentially ground-breaking technological innovations and to deep tech companies.

Horizon 2020 fuelled a remarkable 20% additional growth in employment and a 30% increase in turnover and total assets for participating firms compared to the ones that were unsuccessful despite high quality applications. In the long term, the programme is estimated to contribute an average annual increase of €15.9 billion to EU GDP, totalling €429 billion over the period 2014-2040.

Scientists funded by the Horizon 2020 contributed to over 276,000 peer-reviewed publications. Horizon 2020 also supported 33 Nobel Prize winners. Horizon 2020 was also pivotal in diversifying and enhancing researchers' skills and knowledge. Horizon 2020 supported the mobility of close to 50,000 researchers across sectors and countries. In addition, the programme enabled the EU to develop and upgrade large-scale research infrastructure at both European and global level: over 24,000 researchers and organisations gained access to these infrastructures, expanding opportunities for collaborative work and scientific advancements.

Lessons learned

The evaluation identified the following areas for improvement:

- broader participation,
- further simplification and reduction of the administrative burden,
- reinforcement of the dissemination, exploitation and deployment of results,
- support for the participation of women and
- enhancement of synergies with other initiatives at EU, national and regional level.

The insights and key conclusions of this final evaluation of Horizon 2020 will play a crucial role not only in shaping the ongoing implementation of Horizon Europe, but also in influencing the policy development for future research and innovation initiatives. This ensures that lessons learnt are effectively integrated into current and future programmes, enhancing their efficiency, relevance and impact for Europeans.

Background

[Horizon 2020](#) was the European Union's eighth research and innovation funding programme, operating from 2014 to 2020 with a budget of nearly €80 billion. The objectives of Horizon 2020 were to stimulate economic growth, create jobs, foster collaboration in research and innovation, support excellent science and industrial leadership, and tackle societal challenges in Europe.

The final evaluation was drawn on a wide evidence base with over 1,000 interviews with project beneficiaries, national authorities and implementing bodies, as well as surveys of both successful and unsuccessful participants, combines extensive quantitative and qualitative analyses and builds on a large open public consultation with close to 2000 replies.

For More Information

[Staff Working Document](#)

[Commission Report of the final evaluation of Horizon 2020](#)

[Annexes 1-6 of the final evaluation of Horizon 2020](#)

[Executive Summary of the final evaluation of Horizon 2020](#)

[Horizon Europe](#)

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Quotes:

"Long-standing investment in research and innovation provides high value for money for the society. It is the cornerstone of a greener and smarter future as well as a key element of EU competitiveness and strategic sovereignty. Horizon 2020 enabled pivotal science breakthroughs with tangible impact on our lives, from overcoming the COVID-19 pandemic to fighting climate change and delivered ground-breaking innovations that benefitted our companies and society at large. The insights of this final evaluation will guide us in improving Horizon Europe and feed into the reflections on the future of EU research and innovation policies and programmes."

Iliana Ivanova, Commissioner for Innovation, Research, Culture, Education and Youth - 29/01/2024

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