

## Europe must be empowered to address its key challenges through additional investments for fundamental research

The Guild calls for an urgent funding boost to the Excellence Science Pillar of Horizon Europe, which covers the Marie Skłodowska-Curie Actions (MSCA) supporting the mobility of Europe's best research talent, the European Research Council (ERC) as well as research infrastructures, in order to achieve a balanced resourcing of the three pillars of the programme.

The Guild urges European leaders and policymakers to ensure that the budget for fundamental research is strengthened through the allocation of the €4bn increase agreed by the German Presidency of the Council and the European Parliament to the Excellent Science pillar of Horizon Europe. It is the last chance for Europe to match the ambitions of our leading researchers with adequate resources. Empowering frontier research to develop a strong knowledge base is essential for enhancing Europe's capacity to face the major challenges of our time.

In 2018 the EU made one of the most transformative investments in its history, through an ERC grant for frontier research awarded to Uğur Şahin. In 2020, this investment paid off spectacularly, as Şahin's research led to the development of the BioNTech vaccine, the first to be effective against Covid-19. The return on this investment of  $\pounds$ 2.5m is incalculable. There is no more effective way to invest in Europe's recovery than frontier science.

The European Court of Auditors <u>agrees</u>. It recently commended the Excellent Science Pillar of Horizon 2020 as the most successful part of the programme in achieving the goals that describe its impact. In its report it noted that even though it often takes long for the impacts of breakthrough research to appear, "outputs in the form of scientific publications and breakthroughs nevertheless show that the ERC is delivering". The ERC supports its scientists at the cutting edge of the global research landscape, with more than 83% of the publications stemming from the funded projects being among the top 1 % highly cited per field of science.

Investing the additional €4bn to Pillar 1 would be an investment into the most successful and impactful area of research and innovation. These additional resources are urgently needed, as the current figures for fundamental research point at stagnating levels of investment in Horizon Europe.

"Every year, the ERC identifies about 30% more absolutely excellent proposals than the ones it can fund," the Scientific Council of ERC noted in a <u>recent statement</u>, urging the EU to remain competitive in relation to other global powerhouses for frontier research. Currently, insufficient funding means that a growing number of applicants with unparalleled scientific talent are seeing their projects unrealised, with <u>as little as 12% of projects</u> applying for ERC Advanced Grants being funded this year. Such low success rates can eventually turn away Europe's most prominent researchers. The Guild



urges European policy-makers to invest in proven success by devoting its additional funds to frontierresearch, including the European Research Council and the MSCA.

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