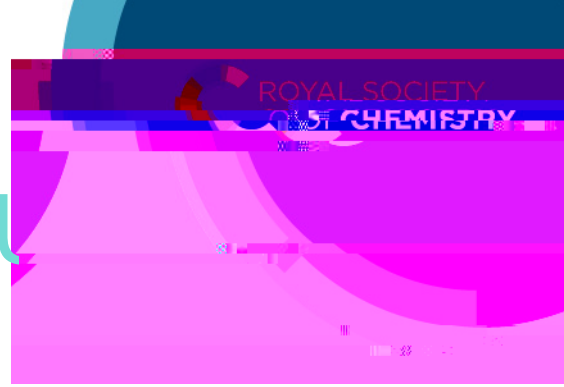


UK Chemistry funding needs post EU exit



We outline the main asks for the chemical sciences in a future Horizon Europe association agreement and what the UK government must provide if this is not possible.

July 2020

We have collected extensive quantitative and qualitative evidence on the impacts that UK participation in Horizon 2020 has had to date and it shows that full association would bring the fullest range of benefits to UK chemistry. This is why we strongly recommended that:

When it has left the EU, the UK should associate fully to Horizon Europe to preserve and enhance international collaboration, and make a final decision once it is

If the UK government doesn't make rapid progress in negotiating full association to Horizon Europe, there will be a gap in funding for science and research when the transition period ends in January 2021.

If the UK cannot associate, or there is a gap between the start of the programme and the UK achieving association, any domestic alternatives must provide the same combination of benefits for both UK researchers and the UK more widely.

Recommendations on alternatives to Horizon Europe:

- x Long term, excellence based funding on a comparable scale to the ERC and MSCA
- x Large scale grants that encourage wide-reaching collaborative international networks
- x Specific grants for overseas travel, international collaboration, and access to international facilities to share knowledge, expertise and infrastructure.
- x Alignment with global challenges in other internationally collaborative programmes. UK scientists need to continue working with the best across the world on the biggest challenges that face humanity by connecting into existing international collaboration or consortia.
- x Tailored support for SMEs.

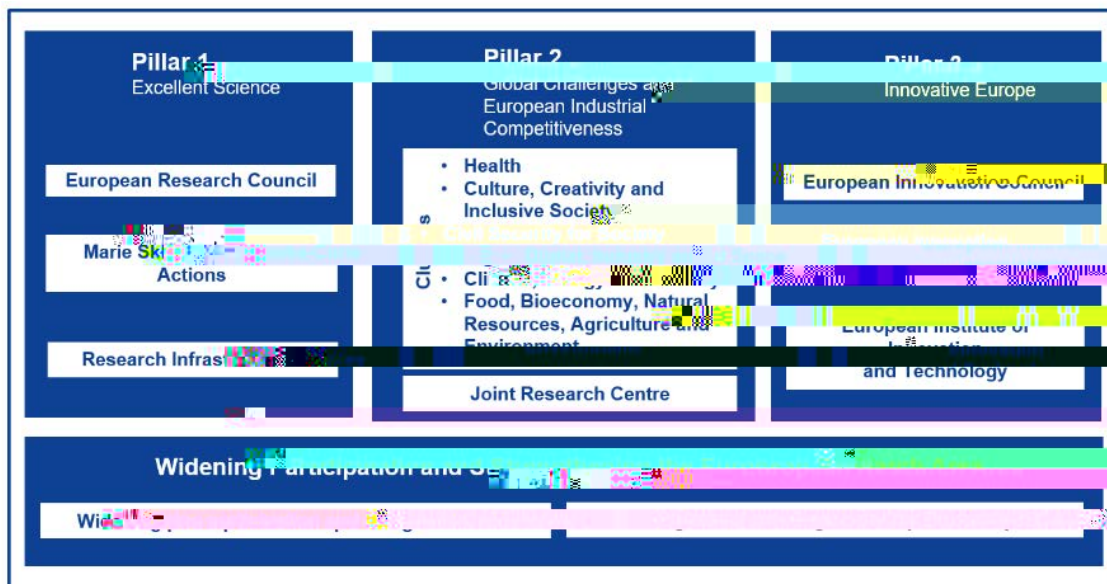


Figure1: Preliminary structure of Horizon Europe. Taken from: https://ec.europa.eu/info/europe-next-research-and-innovation-framework-programme_en

Evidence from UK participation in Horizon 2020

To date³

- x The UK research and innovation sector has received € 6.1bn (€5.5bn) through Horizon 2020, with €413m (£379m) awarded to the UK chemical sciences
- x In fact, the UK is one of the largest beneficiaries of Horizon 2020, second only after Germany, and the chemical sciences win a significant proportion of the competitive, excellence based funding (12.3% of the UK funding through the Excellent Science pillar goes to the Chemical Sciences).
- x As a sector the UK chemical sciences mainly benefit from the Excellent Science pillar. 86% of the total Horizon 2020 funding for the UK Chemical Sciences comes through the European Research Council (ERC) and Marie Skłodowska Curie Actions (MSCA) funding streams (€197 million and €158 million respectively).
- x Furthermore UK Chemistry Departments received 23% of their total funding from EU sources in 2017/18⁶
- x Other funding streams where the Chemical Sciences and Chemical Engineering take a significant proportion of the UK total include the Innovation in SMEs fund (€4.46 million, or 12.1% of the total) and the Nanotechnologies fund (€95 million, or 15%) both are parts of the Industrial Leadership pillar.

³ See individual references for date stamps of when the information was collected

⁴ Figure generated using [Horizon 2020 portal](#) keyword search for 'Chemical Sciences', on 18/11/19. This may not capture all EU funding to UK chemical sciences.

⁵ Data collected November/December 2019 (pre data upload 23rd December).

⁶ HESA data for 2017/18, purchased by the RSC.

that face humanity by connecting into existing international collaborations or consortia. Many international collaborative programmes on global challenges bring together cross sector collaboration with interdisciplinary and international collaboration. UK programmes on global challenges must make it easy for all UK actors to 'plug into' these existing te