

British Heart Foundation response to Pioneer: Global Science for Global Good

Key points

1. Horizon association remains the best outcome for the UK research and development (R&D) sector, and BHF welcomes the Government's recent announcement that they will continue to seek membership as a priority.
2. The Government has set an ambition for the UK to become a Science Superpower and Innovation Nation; continued access to EU funding schemes will supercharge our drive towards that goal.
3. The Pioneer programme offers valuable opportunities, which should not necessarily be seen as distinct from the UK's membership of Horizon. The Government should look to implement these irrespective of negotiations.
4. The Government should publish further details of how funding under the Pioneer programme will be allocated to the devolved nations.
5. Medical research charities play a critical role in supporting researchers and the R&D sector and we would welcome the opportunity to support ongoing discussions over the UK's membership of Horizon Europe and in the formulation of the Pioneer programme.

About British Heart Foundation

British Heart Foundation (BHF) is the largest independent funder of medical research into heart and circulatory diseases in the UK, funding over £1 billion of research since 2010 and helping to halve the number of people dying from these conditions since the 1960s. Despite these breakthroughs, our work is not done, as there are still more than 7 million people living with heart and circulatory diseases in the UK and these diseases cause more than a quarter of all UK deaths.

Reaction to the Pioneer programme

We welcome the further details provided regarding Pioneer. It is encouraging to see that Pioneer would match the amount of funding researchers could expect to have received through Horizon (£14.6 billion) between 2021-27. However, we would welcome further clarity as to how this funding would be allocated, given the investment specified for each pillar amounts to around £11 billion, leaving up to £3.6 billion unallocated. We would also welcome further detail as to how funding for the devolved administrations will be distributed.

Whilst BHF primarily support Horizon association, there are elements of Pioneer that could benefit the UK's R&D landscape and we would encourage the Government to incorporate these into their negotiations regarding the UK's Horizon membership.

These include:

- Plans to provide direct funding to universities impacted by Horizon non-association through Pioneer Talent.
- Government's commitment to strengthening the R&D partnership between the Government, universities and the third sector.
- Funding for uncapped Third Country Participation (TCP), although the loss of opportunity for UK researchers to be Principal Investigators in Horizon projects would be damaging to the UK science base.

While the proposals aim to mitigate practical issues resulting from non-association such as talent retention and funding for UK researchers, there are other elements of Horizon that are far harder to emulate, namely, the prestige associated with its grants. Without access to these funding schemes and

the prestige they carry, researchers' career progression may be hampered, increasing the 'brain drain' as researchers look elsewhere for funding opportunities.

We would welcome the opportunity to further support the development of the Pioneer programme. Medical research charities are crucial partners in the UK's life science sector and should therefore have a seat at the table when discussing its future.

The value of international collaboration in R&D

Medical research is international and highly collaborative, and medical research charities like the BHF both thrive from and contribute to this. The huge progress that has been made in cardiovascular research in the past few decades has been possible, in part, due to the UK's ability to collaborate with, recruit and retain scientists, technicians and researchers from around the world.

For example, funding provided through international research opportunities has been vital to BHF's work finding the cures of the future and supporting better patient outcomes. A recent example of BHF's international collaboration was our Big Beat Challenge (BBC), a global competition challenging researchers to identify solutions to significant problems in heart and circulatory disease. The winning application [CureHeart](#), saw a team of researchers from the UK, the US and Singapore awarded £30 million to research utilising pioneering gene therapy technology to find a cure for inherited heart muscle conditions. The award is one of the largest non-commercial grants ever given and could transform treatments for inherited cardiomyopathy, which affects around 260,000 people of all ages in the UK and currently provides the need for around half of all heart transplants.

BHF also has a partnership research funding scheme with the German Centre for Cardiovascular Research (DZHK), and the Dutch Heart Foundation (DHF) which encourages international collaborations between heart and circulatory disease researchers in the UK and Germany. Together we have awarded more than €4m (around £3.9 million), over four years, for international teams to investigate life-changing conditions including heart failure, abnormal heart rhythms and the causes of unexplained cardiac arrests.

We welcome the Government's ongoing commitment to prioritise ensuring opportunities, like these, for UK researchers to collaborate internationally are available. In particular we are grateful to Science Minister George Freeman MP for championing Horizon association and continuing to push for negotiations to guarantee the best outcome for the UK R&D landscape. Equally, given the long delay to association and the uncertainty this causes for researchers, we recognise the need for Government to provide plans for an alternative scheme, and we welcome the further detail provided within Pioneer.

The value of association with Horizon Europe

UK participation in Horizon proved highly beneficial for EU and UK research and, going forward, membership will be crucial if the Government is to achieve its ambition to maintain the UK's position as a world-leader in science and research as the UK forges a new relationship with the EU. Between 2014 and 2020, UK researchers received over €7 billion from the 'Horizon 2020' programme, amounting to 12.1% of all the funds awarded, second only to Germany. Horizon Europe is set to allocate a further almost €100 billion to researchers and, given the integral role Horizon played in supporting and expanding the UK's research infrastructure, this funding will be the best option to further build on this strong base.

Delays to association have already sparked fears of a 'brain drain', which is highly concerning for Government's science superpower ambitions, reflecting the country's declining draw as a premier destination for researchers amid increasingly fierce international competition.