

## The UK rejoining the Horizon research funding scheme benefits Europe too, researcher says

September 21 2023, by Francesco Billari



Credit: AI-generated image (disclaimer)

The UK has just rejoined the EU's flagship research funding programs, Horizon Europe and Copernicus. This is great news for science, the EU and the UK.



The reasons are simple: <u>science</u> progresses through the individual efforts of scholars and through <u>international cooperative research</u>. The latter process involves different scientific institutions and organizations working towards common goals on a variety of different projects.

Science has never really been confined to what we define today as national borders. The life path of the astronomer <u>Nicolaus Copernicus</u>, provides a good example of this.

Copernicus was born in Torun, Poland, in 1473. After studying in Krakow, in his home country, he moved south, studying in the Italian cities of Rome and Padua. He ended up with a doctorate in canon law <u>from the University of Ferrara</u>, also in Italy.

Afterwards, Copernicus moved back to Poland to further his studies. Here, he developed a model of the universe with the sun at the center, replacing the <u>traditional model</u> where the Earth was central. His <u>"Copernican model"</u> helped kick off the scientific revolution.

When the ability of researchers to work across borders is limited, <u>science suffers</u>. For this reason, Brexit has damaged the UK in terms of retaining European scholars. Some of the evidence comes from research using data on citations—the number of times a given scientific work has been mentioned in the literature by other researchers.

<u>A study</u> led by Ebru Sanliturk at the Max Planck Institute for Demographic Research in Germany, which I participated in, showed that, in the three years following Brexit, scholars who originated in the EU almost doubled their likelihood of leaving the UK. On the other hand, researchers originally from the UK have become more likely to stay in their home country or move back from the EU to the UK.

Why is this the case? One of the key EU funding agencies is the



European Research Council (ERC). It does something unusual: it funds research projects led by a scientist who is then free to change institution after the grant has been awarded.

ERC data shows that, since 2007, 98 UK institutions have been awarded 2,397 projects and a total of more than four million euros. Put another way, the UK took 16% of all projects and total ERC funding.

The ERC has large individual grants: <u>between 1.5</u> and <u>2.5 million euros</u> per project. It has contributed to raising the stakes in European science, and being awarded an ERC grant <u>has become a badge of honor</u> for <u>principal investigators</u>—the scientists who lead research projects.

Moreover, <u>12 ERC awardees</u> have received a Nobel Prize. The UK has benefited too, by attracting principal investigators from <u>59 different</u> <u>nationalities</u>.

## **International networks**

In many scientific areas, Europe has a comparative advantage when it pools resources and minds. Networks of scholars and institutions make discoveries, push forward our knowledge and transform scientific findings into applications.

So EU institutions and scholars can significantly gain from interacting with UK-based scholars and institutions. The UK undoubtedly houses the top institutions in Europe in many fields. If we take the <u>general top 20</u> <u>ranking of universities</u> from the company QS (Quacquarelli Symonds), four UK institutions are included, one from Switzerland and none from the EU.

Research infrastructure—the facilities, equipment and tools used for science—are <u>fundamental to enabling discoveries</u>. Some of them are



viable only by investing a large amount of money and resources.

In some cases, no single country in Europe can afford the infrastructure needed—one example is the Large Hadron Collider at Cern. The more members there are, the easier it is to spread the costs of such projects.

Another example is Copernicus, an <u>EU-funded Earth observation</u> <u>program</u> using satellites to monitor the health of our planet. It provides <u>open data</u>, with everybody able to access it in real time—which is particularly useful in cases of environmental emergencies. As part of its deal to join Horizon Europe as an associate member, the <u>UK will</u> <u>become part of Copernicus</u>.

However, the UK has not negotiated an <u>associate membership of ESFRI</u>, the European Strategy Forum on Research Infrastructures. ESFRI projects, such as the <u>European Social Survey</u> and the <u>Survey of Health</u>, <u>Aging and Retirement in Europe</u>, provide important scientific insights. These translate into social and economic policy assessments by comparing results across countries—effectively using Europe as a natural laboratory.

So, there are potential wins and losses to everyone involved from the particular way the new deal has been negotiated between the EU and UK.

## **Prospects for the future**

Some 17 countries are associate members of Horizon Europe, including science powerhouse Israel (which is a per capita <u>leader in receiving ERC</u> <u>research grants</u>), and major players such as Norway, as well as countries with large populations like Turkey and Ukraine. Switzerland, on the other hand, <u>does not have associate member status</u> with Horizon Europe, but does collaborate with other research teams in Europe using other



sources of funding.

Whether the UK's relationship with the EU on science will evolve towards a strong and stable partnership model similar to the one of Israel or Norway, or towards a more ad hoc one like Switzerland's, is hard to foresee.

If science and impact are key, a complementary, strong and stable partnership is in the interests of both the UK, the EU and other countries with associate membership of Horizon Europe. This can make us cautiously optimistic about the future for all parties.

This article is republished from <u>The Conversation</u> under a Creative Commons license. Read the <u>original article</u>.

Provided by The Conversation

Citation: The UK rejoining the Horizon research funding scheme benefits Europe too, researcher says (2023, September 21) retrieved 12 May 2024 from <u>https://phys.org/news/2023-09-uk-rejoining-horizon-funding-scheme.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.