# Brexit Impact on UK Research: Decline in EU Funding and Decreased Network Centrality

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Brexit and UK higher education after five years: You know the answer, don't you?

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# A Brexit supporter's dream in 2016

What Britain looks like after Brexit, Daniel Hannan, June 21, 2016

It's 24 June, 2025, and Britain is marking its annual Independence Day celebration. As the fireworks stream through the summer sky, still not quite dark, we wonder why it took us so long to leave. The years that followed the 2016 referendum didn't just reinvigorate our economy, our democracy and our liberty. They improved relations with our neighbours.

The United Kingdom is now the region's foremost knowledge-based economy. We lead the world in biotech, law, education, the audio-visual sector, financial services and software. New industries, from 3 printing to driverless cars, have sprung up around the country. Older industries, too, have revived as energy prices have fallen back to global levels: steel, cement, paper, plastics and ceramics producers have become competitive again.



# 'Take back control' for the university sector

- ▶Unwelcome national limits on what universities could do.
- ▶ Risked denting UK universities' international reputation and strong global brand if the sector was to (perceived to) become more 'insular' and 'inward-looking'.
- ► Created dissonance with universities' self-perception as international.
- ▶ Restrictions on access to EU-wide resources, capabilities and talent access signified empowerment and agency
  - ▶ "EU membership plays an important role in the global success of our UK universities and in the contribution they make to the economy and society." Nicola Dandridge, Chief Executive of Universities UK, 13 April 2015.
- ► The Leave campaign saw research and higher education as policy issues
  - ► It argued that EU collaborations were hindering the UK and that Brexit would provide more international opportunities





### Once rich...

- UK declining success in EU Horizon funding
  - decreased UK participation and coordination
  - In Horizon 2020, the UK was the second largest recipient UK institutions received €6.9 billion in grant income (House of Commons Library, 2020).
  - ▶ Between 2017 and 2020, UK participation dropped to fifth place, behind Germany, France, Spain and Italy (THE 2021).
  - ► Had the UK kept pace with Germany, they would have participated in 2,742 more projects 30% more than it actually did.
  - UK grant income dropped by 38% between 2015 and 2020 -Brexit cost UK research £1.46 billion in grant income
  - ► UK participation in Horizon Europe has fallen by half compared to Horizon 2020.
  - Oxford earned €523 million during Horizon 2020 but €2 million in Horizon Europe. Cambridge, recipient of €483 million from Horizon 2020, has not received any Horizon Europe funding to date (Science – Business, 31 Jan 2023)



## UK 'lost £1.5 billion' Horizon 2020 funding after Brexit vote

Scientists for EU says country now needs a plan to regain lost ground as Horizon Europe kicks off

June 24, 2021

Simon Baker

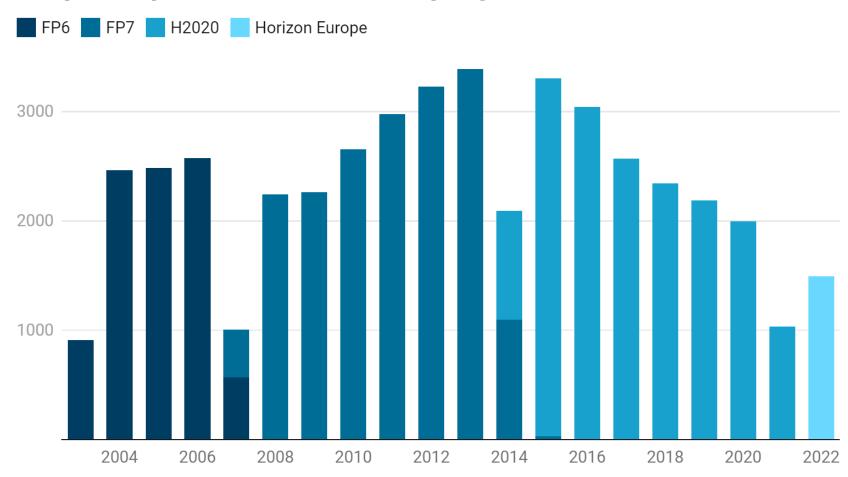
Twitter: @HigherBaker

The UK may have lost out on almost £1.5 billion in funding from the European Commission's Horizon 2020 programme in the years after the country's vote for Brexit, a new analysis has estimated.

According to the analysis of funding data from the scheme, by the campaign group Scientists for EU, grants to the UK steadily



### UK participation in framework programmes 2003 - 2022



Source: European Commission • Get the data • Created with Datawrapper

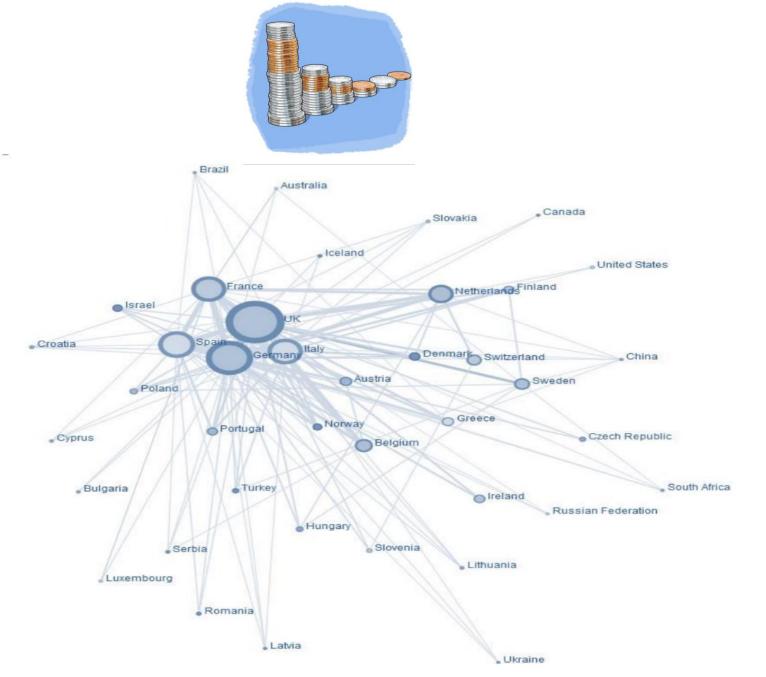
#### Non-association hits UK participation hard

#### Top 15 countries by proportion of project participants

Country	H2020	Country	Horizon Europe
Germany	11.7%	Germany	11.3%
Spain	10.6%	Spain	11.2%
UK	9.8%	Italy	9.5%
Italy	9.6%	France	8.6%
France	9.6%	Netherlands	6.6%
Netherlands	6.2%	Belgium	5.8%
Belgium	4.7%	UK	4.9%
Greece	3.1%	Greece	4.6%
Sweden	2.9%	Austria	2.9%
Switzerland	2.9%	Portugal	2.8%
Austria	2.9%	Sweden	2.7%
Denmark	2.2%	Denmark	2.6%
Portugal	2.2%	Finland	2.4%
Finland	2.0%	Switzerland	2.3%
Norway	1.8%	Norway	2.1%

Get the data • Created with Datawrapper

UK participation in Horizon Europe – that is the percentage of total participants the UK accounts for,





Source: European Commission (2017) - JRC Technology Innovation Monitoring. Cut-off date: 1 January 2017



# Losing Network Centrality

- Network centrality continually improves 'the knowledge, capabilities, organisational structures and strategies of the organisations involved' (Breschi et al. 2009, p. 833)
- Universities capitalised on access to EU and global scientific networks: resources and talent
- Horizon 2020 Interim Evaluation concluded that British universities acted as key knowledge brokers
- Gradually surrendering its leading position, the UK risks forfeiting potential appeal.

### Virtuous circles

- Leverage from participating in large multinational EU funded research and innovation has a compounding effect.
- A key factor in a country's success in EU research funding is its ability to attract researchers and prevent brain drain (De Domenico and Arenas, 2016)
- In the 2007-2014 FP, Switzerland and the UK were the most attractive countries whereas Israel and the UK had the highest 'stickiness'
- Prior to Brexit, the UK attracted many EU doctoral students and researchers due to its language, university reputation, and open labour market.
- Prior to Brexit the UK excelled in winning MSCAs and ERC grants. UK top performing country in FP7 (2007-13), receiving €1.665 billion in ERC grants and €1.086 billion in MSCAs. Next most successful was Germany with €1.087 billion and €0.564 billion respectively (EEAS 2021).
- ERC grants from 2007 to 2020: the UK retained the position of leading recipient nation (European Research Council 2023).
- European funding supported fields such as Archaeology, Classics and Computing (Technopolis 2017).



## EU academics

- EU academics working in the UK increased by 4% in 2017/18. The lowest level of growth for more than a decade (from 7% year-onyear growth to 4%).
- Almost twice as many EU academics left the UK for a job in a university abroad in 2019 than before the Brexit referendum.
- More than 20% of 32,000 academics exiting UK HE in 2019 for any reason were EU academics. EU academic staff in 2019-20 about 17.3%.
- EU academics made up just 16.4% of the total in 2020-21, down from the 17.3% of two years previously.
- In 2022, one in eight of the UK-based recipients of the 2021 round of European Research Council (ERC) grants had left the UK to move their grant to an eligible EU organisation (Science/Business, 2022)
- Almost 50 per cent of all UK-based ERC grantees are nationals of a country other than UK, a higher proportion than anywhere except Switzerland (Siftova 2020).



Higher Education Statistics Agency, shows that more than 600 EU academics went to

The breakdown of figures on staff leaving higher education in the UK, from the





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#### Number of EU academics working in the UK drops again

Hesa data also reveal proportion of black professors remains at 'appallingly low' levels

January 17 2023 ( ) #News



#### Fewer early career researchers heading to UK from **European Union**

Warning that trend has much wider implications for the UK system than missing individual expertise

March 30 2022 (△) #News

### Financial net and Plan B

- By the end of 2020, the UK is locked out of Horizon Europe dispute over the implementation of the Northern Ireland Protocol.
- The 2021 Comprehensive Spending Review allocating £1.3 billion in 2021-2022 for UK's association to Horizon Europe, rising to £2.1 billion in 2024-2025
- A new extension in December 2020 to guarantee all Horizon Europe successful applicants will receive funding in the UK.





'Plan B' for non-association to Horizon Europe (BEIS 2022). This proposes new UK research schemes with a domestic and international scope that would keep the UK at the forefront of cutting-edge research

Jones (2022) raises doubts as to whether current bodies and agencies can effectively deliver all the schemes outlined.

Krebs (2022) warns of a lack in clear strategy, reminding us that becoming a superpower would require significant investment in times of austerity.



# **Earlier CGHE research findings**

#### **Attracting talent**

Concern around UK's capacity to act as a magnet for academic talent.

#### **Collaboration: scale – dynamics - impact**

Concomitant fear of a 'shrinkage' of research collaboration opportunities and capabilities.

University research benefiting local communities and regions.

#### Giving up on EU research leadership and the rich becomes richer

Expectation of compounding and interaction effects resulting in reduced research capacity and standing

## Routes to the future of universities

- Potential expansion of global collaborations and networks was hypothesised and weighed against a foreseeable diminished connectivity with European partners.
- ► Rather than expressing optimism, participants feared the risk of the UK becoming more 'insular', institutions becoming more 'insular', the student experience becoming more 'insular', and research and collaboration becoming more 'insular'.
- ► HEIs are generators of knowledge diplomacy, one of the main components of soft power.
- ▶ Brexit redefines the international relationships of the UK and in doing so, it directly affects those policies, practices and resources that produce and have implications for soft power.