



Scientists for EU: Factsheet

Scientists for EU is a grassroots campaign that started on May 8, 2015.
Website: www.scientistsforeu.uk, Facebook: "Scientists for EU", Twitter: @Scientists4EU

Five things you should know:

1. The EU leads the world in science output

The EU produces over a third of the world's scientific output - 34% more than the US and that gap has grown by 4% over the last 6 years according to the latest UNESCO data.

Oral evidence given at the ongoing Lords' inquiry into EU membership and UK science repeatedly features comments that the EU has overtaken the US as the home of "big science".

2. The EU powers European and global science networking

The EU puts 8% of its budget into a multinational science programme called "Horizon 2020" (€80bn from 2014-2020). UK researchers can pick and mix partners from right across Europe, putting together multinational dream teams. Freedom of movement and a common legislative framework help make cross-border collaboration much easier. These European-led projects also attract labs from anywhere around the world as secondary partners, increasing UK global networking. From 2007-2013, the EU science programme involved 170 countries worldwide.

3. International collaborations have more impact

Networking is crucial to being a world-leading science nation. International scientific papers have much more impact than domestic-only research (about 40% more).

The latest UNESCO data show that 62% of the UK's research outputs are now international collaborations. The US is on 39.6%. According to a 2013 UK government report, it is the UK's increasing internationalisation that has recently put us ahead of the US for science productivity.

4. UK science is growing thanks to EU vision

The EU has been shifting the focus of its budget from agriculture to research, innovation and growth – with the science budget tripling over the last decade. EU funds now make up 17% of the total science research grants in UK Higher Education Institutes (HEIs). But, most importantly, a huge 73% of the **increase** in HEI science funding from 2007-14 can be assigned to EU sources.

5. There's no extra money for science on Brexit

Being a net contributor to the EU budget doesn't mean we profit by leaving. There are wider impacts of pulling the plug, with a likely economic drop far bigger than our (0.6% GDP) net contribution. That means less money, not more, available for UK for science if we leave.



How would Brexit change our relationship with EU science?

Brexit risk: Policy

If we pull out our government and 73 MEPs, we no longer have that input to EU science policy (e.g. patient data, clinical trials, stem cell research, climate change) or the development of the EU science programme. That hurts our representation on laws we would likely have to adopt to work across borders effectively. The schism would also tempt European science infrastructure and companies out of the UK into full member countries.

Brexit risk: Participation

If we pulled out of the EU, there is a major threat to our participation in the EU science programme and all the associated multinational collaborations and talent exchanges. Some countries (e.g. Switzerland, Norway, Israel) buy into the EU science programme from outside. However, it's never an entitlement, it's negotiated. Switzerland cancelled its freedom of movement agreement with the EU and therefore got only partial access to the science programme. That reduced Swiss involvement by 40%. Even with freedom of movement preserved, we are in a very different ballpark from other countries that currently buy in. The remaining 27 countries would have an opportunity to cherry-pick parts of the programme away from the UK to best serve the interests of their own institutions and researchers.

Brexit risk: People

Currently, we can hire effortlessly from a population of 500m in our continent. If we cancelled freedom of movement with the EU, then we would be hiring from our neighbourhood in the same manner we do from the rest of the world. Currently, non-EU science workers suffer well-documented hampering bureaucracy from our government. Restrictions we put on EU scientists and their families would bring restrictions for our own scientists in the EU – the region with which we collaborate most intensively. Suddenly free-flow of talent and easy collaboration would be replaced by the uncertain, stressful and costly red-tape of the Home Office. In the “science and maths” higher education workforce in the UK, 21% are immigrants from the EU. Many have indicated that they also have principles and can vote – with their feet.

What scientists think

- An open survey by CaSE/EPC in Dec 2015 found that 93% of research scientists and engineers thought that the EU was a “major benefit” to UK research.
- None of the 132 vice-chancellors represented by Universities UK is advocating leaving.
- The current and previous two Presidents of the Royal Society have spoken up for EU membership (Sir Venki Ramakrishnan, Sir Paul Nurse, Lord Martin Rees).
- Nature magazine said in Feb 2016 “it is the view of this journal that science, in Britain and elsewhere, would benefit from the United Kingdom remaining as a committed member of the European team.”
- UNESCO said in Nov 2015: “Were the Brexit to become a reality... the UK would lose its driving seat for research and innovation in the EU.”
- Of 72 written submissions to the House of Lords inquiry into EU membership and UK science (published Jan 2016), only two advocate leaving the EU. Both are from campaign groups established to promote leaving the EU.

Scientists for EU, Feb 2016

