

DEBATE SUMMARY

The pros and cons of EU membership for UK research programmes in private enterprises and public sector organisations

Held at The Royal Society on 3rd May, 2016.

The hash tag for this debate is #fsteurope .

Audio files of the speeches are on www.foundation.org.uk .

Chair: **The Earl of Selborne GBE FRS**
Chairman, The Foundation for Science and Technology

Speakers: **Professor The Lord Hennessy of Nympsfield FBA**
Member, House of Lords Science and Technology Select Committee
The Viscount Ridley FMedSci FRSL
Member, House of Lords Science and Technology Select Committee
Professor Dame Jocelyn Bell Burnell DBE FRS FRSE FRAS FInstP
President, The Royal Society of Edinburgh
Sir Emyr Jones Parry GCMG FInstP FLSW
President, The Learned Society of Wales

LORD HENNESSY said that while the EU was a customs union for free trade, what was more important than the free trade of goods was the free trade of the mind of ideas. There should be no borders for these. Such free trade benefited the UK, with its leadership in science. The EU was not perfect, and if it had been constructed by us, rather than France and Germany, it would have been different, but it exists, it promotes free trade in goods and ideas within it and it funds 18% of our R&D - the equivalent of another Research Council. Suggestions that we would do just as well if we were an Associated Country outside the EU like Switzerland, were misguided. The Swiss themselves had doubts; although they got funds, they lacked influence in decision making, they had to obey EU common market rules, and if they succumbed to a popular movement to restrict movement of labour, they would be penalized for breaking these rules. If we became an Associated member, we would be a "corridor member" - someone left in the corridor while others made decisions in the room. No doubt EU harmonization policies, while benefiting R&D broadly contained elements, such as those on genetic modification, which were none scientifically based and harmful to UK interests, but they can be improved through work in the Commission. More worrying was the failure of UK businesses to siphon off EU money as effectively as those in competitor countries. This was partly due to lack of government support.

All the advantage lay in staying in the EU and maximize our influence within it to attack bureaucracy and waste, focus and expand R&D funds to the UK's benefit' and encouraging the mobility within EU countries of high quality scientists and researchers.

LORD RIDLEY said he welcomed international collaboration on science and research. Science was not a national or regional activity, it was global; consider the team that Francis Crick assembled to deduce the structure of DNA - they were global. His fear was that the EU restricted the global reach of science. We would not lose EU funds if we became an Associated Country - look at Iceland, Norway and Switzerland. Many confused Europe with the EU, but many European countries were not members of the EU and they (with non-European countries) were members of organizations such as CERN and the European Space Agency. The disastrous regulations over Clinical Trials, Data Protection, GMOs, tobacco (which would severely restrict vaping), homeopathy and pesticides showed decisions by politicians were not always guided by sound science. So where is the advantage in being in on so called scientific decisions? The Haldane principle, that individual decisions should be made by experts, was ignored. Innovation is positively discouraged by the Commission.

The crucial issue is mobility of scientists and researchers. Science is global and we must be able to attract good scientists from everywhere. But because we have to give free entry to EU nationals, and the government has fixed immigration targets, we have to limit entry of scientists from other countries. So because we have to admit Rumanian fruit pickers we must exclude Indian researchers and students. 90% of non-EU graduates will be STEM graduates. We need to be able to recruit from the global pool of research scientists.

DAME JOCELYN BELL BURNELL said that EU membership was a great advantage to academics and students. It encouraged diversity of approaches and ideas. The UK science community does very well in bidding for European grants¹. We are successful because we have good people applying, and English as a language helps. 93% of scientists polled by the Campaign for Science and Engineering (CaSE) believed that EU membership is a major benefit to UK science. EU funded projects promote team diversity. Research groups with diversity are often more successful. The Grand Challenges of responding to climate change, adapting to resource scarcity etc. all demand multinational collaboration. Being a member of the EU will help, not hinder, the UK.

It is true, however, that some EU directives have been counter-productive such as the regulation of GMOs, but many EU policies have been of benefit for example agreeing common environmental standards, requiring employers to offer maternity leave, and supporting women scientists to stay in research careers.

The European Framework Programmes have been regarded as overly bureaucratic and, in some cases, narrow, but the prospects for future programmes were promising, and the UK should support them. EU membership was not perfect, but we should stay in and work to improve it.

SIR EMYR JONES PARRY said that the UK could operate if it left the EU. As a leading science country, it had collaborations with many countries, and would continue to do so. But being in the EU had been good for researchers and students and it had been a valuable funding stream. The UK as a whole might not do so well out of structural funding (which is tilted to poorer nations) but Celtic areas such as Wales did. It is true that we get back only part of the total UK contribution to the EU, but the suggestion that if we got it all back, the additional sum would be devoted to R&D or any other cause is simplistic. No government will agree to hypothecate a specific sum such as this to a particular cause. It will spend it on whatever seems to it to be the political priority of the day. Wales and Scotland would suffer more. We had been successful in promoting UK interests in Framework negotiations, and we needed to maintain this influence for Horizon 2020 so that it benefited both the UK and the EU.

We needed to be in the EU in order to help deal with global problems such as food security and terrorism. Some EU policies which we had opposed, such as pollution of the sea, had turned out to be very beneficial for us. It is illogical to want to be multinational and not want to be in the EU. In the event of an exit 378 bilateral trade agreements would have to be negotiated to replace the current arrangements.

¹ The evidence gathered by the House of Lords Science and Technology Select Committee for their report on Europe is a valuable resource of the facts and figures relating to European funding of science in the UK – see www.parliament.uk/hlscience.

The worth of sovereignty lies in the power it gives to control events. But many events, such as the price of oil or financial crises, or UN Security Council resolutions, treaties and alliances limit any sovereign power. Big decisions will involve the UK government; without the UK involvement interstate conflict would be more likely.

DISCUSSION

Participants questioned both the percentage (18%) of UK's net contribution being devoted to research (10% was alleged), and the method of allocation. Did it make any difference whether we were in or a "corridor" member; ones view depended on whether one wanted deep or shallow integration. Norway was an example but it successfully bid for funds, although it was not represented in the EU Research Committees. The procedure for allocating grants was complex. It starts with the Competition Council where Ministers decided broad areas, but then Research Committees advised the Commission on specific subjects. Those with experience of EU negotiators were clear that it was vital to be "in the room" where Ministers took decisions. It was not just having a voice. It was the informal discussions with individuals and negotiating tactics that made the difference, in formulating policies and, if necessary, working to mitigate their disadvantages.

Because of the involvement of democratically elected Ministers, there was no "democratic deficit". It was not only Ministers who had to learn negotiation techniques; if the UK were to get full benefit from negotiations officials must work to master them; and with the overstretch in the civil service at present, more resources might be needed. We needed to have more UK nationals in Brussels. The European Parliament responded to populist clamour (as over GMOs) and hostility to national governments, but it was for national Ministers to work with MEPs to develop greater responsibility.

Was there any cost/benefit analysis of the effect of grants? Such economic analysis is very difficult, as external factors, such as oil price, have disproportionate effects on economies. Moreover, even if poorer countries got more of the structural funds, the investment helped the whole economy of the EU.

As science evolves, there is a demand for large international technological or scientific capital projects. We must negotiate to bring some of such projects to a site in the UK. We will be more likely to succeed if we are in the EU where Ministers can make the case; and understand how to negotiate. Science programmes grow large, but often start small; do not neglect small research opportunities when concentrating on major projects. Do not try to over centralize scientific effort; decentralization is better, but

science is global and big infrastructure projects are in the pipeline for bids.

It was clear that majority of universities wanted to remain in the EU for the benefit of scientists, other academics and students. Staying in did not affect the range of international contacts and the global range of their interests. It was a pity, but understandable, that the same clear view had not come from business.

But would the conclusions of the House of Lords report, and the views of Universities, and the flow of funds to R&D affect public opinion on the vote on the referendum? Probably not. The public are more likely to focus on controlling immigration; getting out would mean fewer immigrants. It was unlikely that they would accept the view that it was beneficial to have fewer EU immigrants, if it meant having more Indian or Chinese immigrants, even if these were highly skilled. The UK's immigration policy was set by the UK government, not the EU.

Members noted the interest in other countries about the relations of the UK with the EU. President Obama had said it was in the US interest for us to remain in; Canada was watching with interest. France had seen, and still sees, the EU as a bulwark for peace. As it had evolved, with the removal of dictatorships in Europe and the incorporation of ex-Communist countries, the importance of preserving peace rested on the solidarity of the EU members working together. If a nation consistently opposes colleagues, they will not seek retribution, but will be unlikely to be willing to help. The way forward with the EU Parliament was to recognize its importance and develop the co-decision procedures between it and the Council. But other participants doubted whether the EU was important for peace in Europe. There was no equivalent to the EU in the Americas but there were no wars in the region.

Social sciences were important research areas and it was important that they were included in discussions. A group of four academies (including the British Academy) worked to ensure this. Collaboration in all areas was a benefit of being in the EU; being outside would make collaboration more difficult.

Participants stressed that we should not be looking at EU policies in terms of country against country, but in terms of competition against the rest of the world, and how it benefits the world. EU policies are often better than national policies (including our own) they have global benefits. Being part of a bigger group is better; the analogy is the Canadian referendum on Quebec separation. Quebec is a distinct culture, but still thought being part of Canada was worthwhile. Scotland also decided not to go alone

Important points from the discussion were:

1. The referendum is about the future. It is vital that we understand how science is evolving; the importance of collaboration and major science infrastructure initiatives.
2. We need to understand fully how decisions are taken in the EU, and ensure we gain the support of allies and have strong negotiating teams.
3. There is no conflict between multinational collaboration and working with the EU. Both can benefit the UK.
4. If we remain we must work hard to support Horizon 2020, and mitigate the effects of unscientifically based policies. To do this we must understand the role of Parliament as well as the Commission and Ministers.

Sir Geoffrey Chipperfield KCB

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House of Lords Science and Technology Select Committee Report on EU membership and UK science
www.parliament.uk/hlscience

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