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Higher education and research in the Brexit policy process

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ABSTRACT

This article on post-Brexit policies for higher education and research suggests that these public policy domains are characterised by their intellectual independence from the state or market. The authors see a legacy of the UK's historical relationship with the EU in its treatment of the two epistemically linked domains, reflecting institutional differences. UK governments have generally been wary of EU involvement in higher education and supportive of research collaboration. Post-Brexit evidence suggests that the UK has been purposively 'de-Europeanising' higher education for the supposed gains of marketised international policy. But the UK is also a victim of its overarching Brexit policy, which risked failing to secure associate status for the UK in the EU's world famous Horizon Europe science programme. The article explores the question of whether Brexit caused divergence in these sectors or whether it provided the opportunity for the UK government to solidify an already semi-autonomous policy trajectory.

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Introduction

The 2016 Referendum vote to leave the EU came as a shock for the UK higher education and research system. On the eve of the 2016 Referendum, a self-selecting survey suggested that 90 per cent of the academic and wider research community were intending to vote Remain (Morgan, 2016). Few policy actors or academics were making what was then the counterintuitive case for the opportunities that leaving the EU might create for universities or

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related research institutes. University leaders were concerned that Brexit had the potential to diminish the global standing of the whole of UK higher education (Arthur, 2016).

A summary of the pros and cons at the time from the influential Higher Education Policy Institute suggested that, while Brexit would be bad for universities and might ultimately affect their standing in the rest of the world, countervailing factors implied that the different costs to the sector could be absorbed (Hillman, 2020). Other commentators pointed out that the political economy view ignored 'the added value of collaboration, reputation, networking, joint use of research facilities and the leverage effect' of European scientific collaboration (Highman & Marginson, 2018). One observer intimated that only 10 per cent of academics believed universities would absorb the Brexit changes and that most resented being treated in political economy terms (Papatsiba, 2019).

The policy implications for the UK have to be understood in light of the development of EU research and higher education policies before and during UK membership, UK domestic preoccupations, and spillover effects from both EU and UK policies. The first part of the article sets Brexit in context by analysing key developments in EU policy for the two sectors between 1973 and 2016, and its increased political relevance to the EU. Although an indirect reference was made to research in the 1957 Treaty establishing the European Economic Community, higher education was not mentioned until the 1992 Maastricht Treaty establishing the European Union. In the EU's Lisbon Strategy for Growth in 2000, the two sectors became part of the EU's strategy for delivering the Treaty's medium/long terms goals. The 2009 Lisbon Treaty, renamed as the Treaty on the Functioning of the European Union (TFEU), reaffirmed and, in the case of research, extended the EU's role.

The second and third sections track the role played by UK governments in EU higher education and research from 1973 during their 43 years of membership. The authors examine how UK actors helped to shape EU policies and tried to influence UK attitudes, and ask whether the default position in higher education was always 'deflection': not acting in opposition to EU policy, but repackaging or ignoring it (Alexiadou & Lange, 2013).

The fourth section on the UK outside the EU highlights the initial dilemmas for a government unprepared for the Leave result of the Referendum, and badly prepared for the ensuing UK/EU negotiations. It reviews the treatment of higher education and research in the 2020 Withdrawal Treaty and the Trade and Cooperation Agreement, and the choices made since the referendum vote.

The article concludes by assessing the extent to which UK higher education and research were effectively de-Europeanised, qua diverged, in the wake of the Brexit settlement either by law or by political choice. The authors comment on the ways in which Brexit differentially affected policy-making in the two sectors.

Pathways towards the Europeanisation of higher education and research

By tracking and comparing the overlapping but distinct trajectories in the two areas during the process of Europeanisation, this section shows how scientific collaboration was being driven increasingly by European funding programmes. Despite sector actors being more cognitively attuned to Europe, proponents of closer cooperation in higher education had to contend with the wariness of British governments about intervening in a policy domain regarded as a sovereign matter.

European research policy: changing ideas and contexts in the 1970s–1990s

European collaborative research activities started long before 1973. They were a key component in the 1951 Treaty establishing the European Coal and Steel Community (ECSC). In 1954, when the Centre Européen pour la Recherche Nucléaire (CERN) was launched as a large-scale intergovernmental world-class physics research facility, the twelve original partners included the six founding members of the European Economic Community (EEC) as well as the UK.

No specific provisions were made as a basis for a research policy in the EEC Treaty and the European Atomic Energy Community (EAEC or Euratom) signed in 1957. The Euratom Treaty did, however, create the Joint Research Centre (JRC) as a cost-sharing contract research programme, with procedures for the coordination of national research projects.

Altiero Spinelli, the famous European federalist, seeing research as integral to the nascent Community industrial policy, was the first commissioner to incorporate research policy into Commission activities. Almost a decade after the UK joined the European Communities (ECSC, EEC, EAEC were merged in 1965), the European Council affirmed in 1982 the need to systemise and optimise community activities in the field of research, development and demonstrations. The first of the Framework Programmes for Research and Technological Development (FPs) was launched in 1984 (Horizon Europe is FP9) on the basis of Article 235 of the EEC Treaty, which gave the Council competence to adopt community measures in policy areas not explicitly included in the Treaty.

The Single European Act of 1986, designed and delivered by Lord Cockfield (1994), the UK's appointee as European Commissioner for the Internal Market, enshrined research policy in the EEC Treaty as a means for achieving innovation and smart growth. The Act defined cooperation and coordination of national research policies as common objectives and provided a clear legal framework for the adoption of the community framework

programmes, as well as additional tools for policy implementation. In creating the European Union, and classifying all EU policy activity according to the legal bases, the 1992 Treaty of Maastricht, listed research as an area of shared competence between the EU and its member states.

Developing a higher education policy outside EU law

Unlike research, the genesis of EEC-wide higher education policy was political. In 1971, the six EEC ministers, frustrated by the incapacity of the Council of Europe to respond to common problems in the wake of the 1968 student movements, agreed that they should meet under the EEC, where they would be supported by the Commission's technical services (Corbett, 2005).

This agreement was reiterated in 1974 after the 1973 enlargement and, in 1976, in an action programme in education and training. Commission support took on a new meaning. The enterprising official in charge of education and training bundled the two issues together in an action programme package of education and training, the significance being that vocational training was recognised in the Treaty, and that EEC funding could, therefore, be secured. The pilot actions included the creation of joint study programmes between volunteer universities, which was the origin of the Erasmus programme for study mobility (EUR-Lex, 1987), an EU initiative consistently plebiscited by the public in Eurobarometer surveys.

As with research, the Single European Act (SEA) provided a new dynamic for Europeanisation. In 1985, Peter Sutherland, the Commissioner, brought higher education back onto the Community agenda, seeing higher education mobility as an instrument to advance the Single Market. Fortuitously timed jurisprudence confirmed that education was vocational training, while higher education was enabled by the SEA. Many of those who had been promoting university mobility saw their work in terms of furthering Europeanisation. But it was the instrumentalised view of higher education that won through in the EEC decision creating the Erasmus programme in 1987 and in the revised decision in 1989 (Corbett, 2005, pp. 118–148). The Maastricht Treaty served as a tidying-up exercise; it put a stop to the Commission's legislative ambitions of building on vocational training provisions, instead allowing it to propose 'quality' initiatives.

The knowledge economy: a turning point for Europeanisation

The paradigm turn to the knowledge economy in the 1990s marked a milestone in the Europeanisation of higher education and research policy. The moment was propitious. Under Jacques Delors' presidency between 1985 and 1995, the European Commission had become more proactive in areas

of social policy, driven by the need to invest in employment and economic growth, and supported by robust social protection and vocational training systems (Hantrais, 2019). The Treaty of Maastricht in 1992 had closed a contentious policy episode. Largely supported by the UK, the ground had been prepared for the Lisbon Agenda, adopted by the Lisbon Council in 2000. The agenda signalled a turning point in policy advancement. By enabling the open method of coordination (OMC), as opposed to law, to be applied to social and economic policy, the agenda confirmed the political commitment at national and EU levels to the knowledge economy embodied in the twin concepts of European Research and Higher Education Areas.

Towards a European Research Area

The Lisbon Agenda represented a shift in the EU's strategic thinking, requiring buy-in at national level. With unusual rapidity, the heads of state and European Parliament adopted the Commission's proposal for a European Research Area (ERA). The proposal contained the mechanisms needed to achieve the EU's overly ambitious aim: within ten years, it was 'to become the most competitive and dynamic knowledge-based economy in the world, capable of sustained economic growth, with more and better jobs, and greater social cohesion' (Council of the European Union, 2000).

The ERA proposal, described by a close observer of the negotiations (Caswill, 2003) as an example of supra-national science policymaking in a multi-layered system of governance, was timely in that it responded to widely held criticisms of the Commission's bureaucratic procedures and controls. The formal changes introduced in the Lisbon Strategy mainly concerned the legislative process to be used for the adoption of relevant provisions for research, including but not confined to the framework programmes. Research and space were legally recognised as an area of shared competence explicitly building on national scientific and managerial capacity. With Philippe Busquin as the Commissioner for Research and Development, one of the major ERA innovations was to move towards a less top-down process. No longer seeing the national research agencies as the enemy, a radical decision attributable to Busquin's cabinet was to engage with these agencies as principal actors in European science policy (Caswill, 2003).

Stimulated by the ERA and the new multi-level approach to science policy, at the turn of the century intra-European mobility and cooperation had become a reality for researchers. The UK largely subscribed to this aim, while retaining its openness to collaborations with the wider world, as did other EU member states individually and collectively. Reinforcing the link between research and higher education, the Marie Curie Actions had been established in 1996 (renamed Marie Skłodowska-Curie Actions in 2014). The scheme was designed to support excellent research and innovation and

equip researchers at all stages of their academic careers, especially post-graduate and postdoctoral, with new knowledge and skills by facilitating mobility across borders and providing exposure to different sectors and disciplines.

Another critical innovation flowing from the new-found cooperation between the Commission and national research funding agencies and mobility schemes was the creation of the European Research Council (ERC) in 2007 as an independent research council supporting individual investigators and their research teams. The focus of the ERC at that time was wholly on research excellence and bottom-up management, unlike the framework programmes, which took account of fairness in grant distribution, particularly during the 2004 enlargement process. The ERC aimed to make European research more responsive to the global challenges of a knowledge-based society. A key feature of the ERC's starting, consolidator, advanced and synergy grants was that researchers at all stages in their careers could choose both their research topic in any scientific discipline and where, within the EU, their awards would be hosted. Implementation arrangements were subsequently signed with funding bodies elsewhere in the world enabling their researchers to join grant holders' teams in EU member states.

Towards a European Higher Education Area

Following Maastricht, educational politics began to reflect the EU turn to the knowledge economy. The European Commission's (1991) Memorandum on higher education in the European Community marked the change by encouraging member states to adopt a more competitive and market-friendly approach.

In 1998, member state ministers from France, Germany and Italy had proposed the creation of a European Higher Education Research Area (EHEA) by 2010. They too were inspired by the knowledge turn, but also by the new concordat of the Maastricht Treaty and the boost to European unity given by the fall of communism in 1991. Based on universities' fundamental values of independence and autonomy, and with due obeisance to the European university`s 900 year long history, the declared aim of the EHEA was to achieve 'compatibility and comparability' of degree structure, regulatory instruments of recognition and quality assurance, while promoting the broader remit to uphold university values of freedom and autonomy (European Commission, n.d.). Its underlying purpose was to bring greater coherence to higher education systems across Europe. By facilitating student and staff mobility, higher education in Europe was to be made more inclusive and accessible, and more attractive and competitive worldwide.

'Bologna' would go on to achieve what would have been deemed impossible back in the 1970s: shifting member state perceptions from seeing

voluntary participation as the limit of education policy initiatives to the acceptability of monitored coordination without sanctions (Ravinet, 2008). A key to the process was the involvement of stakeholders such as the European University Association, the European Students Union, the European Quality Assurance Agency, as well as representatives of national systems stretching across Europe to Russia, the Caucasus and Kazakhstan. The process places a value on cultural exchange in working groups. It operates by getting its member systems to agree the general lines for compatibility through harmonised degree structures and commitments to soft regulation on quality assurance and recognition. By 2010, when the EHEA was formally brought into being with 45 higher education systems represented (in 2022 it had 49 full members), it was clear that the Bologna call for a common degree structure embodying a break between undergraduate and postgraduate studies had been almost universally adopted, and that commitments to recognition and quality assurance were widely accepted.

The Lisbon Agenda (Council of the European Union, 2000) led to a more instrumental view of higher education. It stressed the importance of 'modernising social welfare and education systems' and of investing in 'Education and training for living and working in the knowledge society' as part of the strategy for 'preparing the transition to a competitive and dynamic knowledge-based economy and society'. Although the Agenda did not refer specifically to higher education or research, the Commission seized the opportunity of the European Council's approval to align education with the principles of subsidiarity, mutual learning and the soft form of management by objectives, contained in the OMC.

Italian scholars saw this development as the 'Lisbonisation' of Bologna (Capano & Piattoni, 2011). Yet, the relationship between the Bologna Process, the Commission and Council of Ministers' presidencies had a policy reach at multiple levels, fostered by a rota of key actors with positions in the Council and in the Bologna Process (Corbett, 2011). The Commission had a bigger platform and a stronger ideological line from 2005 when the Lisbon strategy was relaunched. Taking the US and Japan as comparators, it drove a neoliberal modernisation agenda as the way to ensure that 'our universities can compete with the best in the world through the completion of the European Higher Education Area' (Commission of the European Communities, 2005, p. 9), as announced at Bologna in 1999.

Bologna also built on developments in related social policy areas as part of the future Lisbon Agenda. The Lisbon Conclusions (Council of the European Union, 2000) asserted the political commitment of the EU's leaders to the modernisation of social welfare and education systems and, for the first time, presented investment in education and training and an accompanying strategy as crucial for the transition to a 'competitive and dynamic knowledge-based economy and society'.

By 2004, an education and training strategy for 2010 had been produced, which embedded the intergovernmental Bologna Process as having special responsibilities in relation to higher education policy. The crucial aspect was OMC: based on the principles of subsidiarity, and equally concerned with mutual learning and a soft form of management by objectives, OMC served as 'a watershed' for European education policy (Gornitzka, 2006).

The legal status of higher education and research in 2016

The Lisbon Treaty made the completion of the European Research Area (ERA) a Treaty requirement and provided the legal basis for the adoption of legislation for its implementation. In line with the subsidiarity principle, staunchly upheld by the UK and the Nordic member states in other areas of social policy, the version of the treaty provisions inscribed in the 2008 consolidated Treaty on the Functioning of the European Union (TFEU) defined the limits of EU powers, ensuring that member states would have the freedom to diverge:

> In the areas of research, technological development and space, the Union shall have competence to carry out activities, in particular to define and implement programmes; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs (EUR-Lex, 2008a, p. 52).

This restriction may help to explain why, by 2016, due to opposition from the Council, Lisbon's legal provisions had not been implemented (Reillon, 2016). It also suggests that the UK would have had relatively little to lose during the Brexit process as far as national sovereignty was concerned. In a science-driven policy area where building the Europe of knowledge depended to a large extent on national institutional and constitutive characteristics, legislative action was not appropriate.

Through a process of mission creep, a 'high level of education' had become one of the social policy areas identified in a horizontal 'social clause' in the Lisbon Treaty, which linked 'a high level of employment, the guarantee of adequate social protection, the fight against social exclusion, and a high level of education, training and protection of human health' (EUR-Lex, 2012, article 9). Similar restrictions to those for the ERA and for other areas of social policy limited the operability of the EHEA. In observance of the subsidiarity principle, the Treaty specified that:

> The Union shall contribute to the development of quality education by encouraging cooperation between Member States … while fully respecting the responsibility of the Member States for the content of teaching and the organisation of education systems and their cultural and linguistic diversity (EUR-Lex, 2008b, article 165).

The ground had been prepared for higher education to become a multiple and key producer of knowledge roles – democratic, cultural, social and

related to human capital – contributing, together with research, to the strengthening of scientific and technological bases of the knowledge economy within the ERA.

The UK as a player in Europeanising research and higher education policy

General de Gaulle's persistent blocking of the UK's application to join the EEC in the 1960s had not prevented UK scientists from participating in joint European research ventures. Before the European Commission launched its framework programmes, UK research councils and academies were already working closely with their opposite numbers in the wider Europe to harmonise their funding and evaluation schemes under the auspices of the European Science Foundation (ESF) when it was formally established in 1974.

Throughout the period of the UK's EU membership, in the area of research, the UK could not be characterised as 'an awkward partner' (Hantrais, 2019; Richardson & Rittberger, 2020). Like other member states, UK scientists complained about the bureaucracy and complexity of European procedures, regulations and policy orientations (HM Government, 2014, pp. 39–41). Instead of opting out, as the UK government had done for social policy in the Maastricht Treaty, UK scientists engaged meaningfully and constructively with the process at EU level. The story was rather different for higher education. This section reviews the ways in which the UK research and higher education sectors pushed forward the European agenda with support from UK governments, or despite their blocking tactics.

The UK as an actor in Europeanisation of research

From the late 1970s, UK scientists played a lead role in promoting collaborative research through the contributions of its experts to the research funding process and research evidence base (Hantrais, 2019). Drawing on their extensive experience in applying for government funding via their disciplinary research councils, and in advising on innovative research topics and approaches, they acted as consultants and coordinators for Commission network and programme committees in simplifying bureaucratic procedures for evaluating Community actions and projects, and for raising awareness of the political implications of comparing the performances of different countries.

In the early 2000s, the UK government was generally supportive of Commission thinking which it saw as mirroring the British line on the requirements of national funding bodies: the need for competitiveness, for demonstrating value for money of the public resources invested in research,

and the relevance to policy of EU-funded research under the framework programmes (Hantrais, 2009).

Initially, the UK research community had to overcome the reluctance of some of its research-led institutions to take on the additional bureaucracy and staff commitment associated with EU grants in the absence of adequate overheads. EU funding lacked the valuable kudos associated with more prestigious and more firmly embedded structures for managing research council funding. By building on previous experience, researchers in UK universities were soon helping reshape the Commission's bureaucratic structures, and were benefitting disproportionately from the European framework programmes and mobility schemes launched in the 1980s and 1990s. A pre – Referendum report devoted to the balance of competence between the UK and the EU on research and development noted that 'UK research is highly competitive across a wide range of fields' and was consistently punching above its weight (HM Government, 2014, pp. 9–10).

Although UK higher education and research were only ever partially Europeanised by EU policies, in some respects a process of enforced de-Europeanisation of research, or European disintegration, had begun before Brexit. Such had been the success of UK researchers in obtaining European funding that, in the early 2010s, UK applicants were being actively, though informally, 'discouraged' within the EU from leading bids for framework programmes. On grounds of fairness and equity, selection criteria for FP funding were partly determined by non-scientific factors – including the geographical spread of applicants – rather than being based essentially on scientific excellence, as was the case for ERC grants. The UK had enthusiastically sought to promote ERC awards; it continued to produce and host a regular stream of successful applicants after 2016 (European Research Council, 2022).

The persisting pre-eminence of UK social scientists, in particular, in obtaining FP TSER and ERC awards, was demonstrated by the fact that, on the eve of the referendum in 2016, UK social science research had become one of the few areas where the UK was a net beneficiary of EU funds. UK social sciences were outperforming both other disciplines in the UK and social scientists elsewhere in the EU (Hantrais & Lenihan, 2016).

The UK's contribution to the Europeanisation of higher education

In a context where the EU lacked a formal competence in the higher education area, British actors were nevertheless present inside and outside EU institutions intent on shaping EU policy on higher education. UK officials were instructed to show good faith but not to allow EEC processes to be implemented. On the UK's accession in 1973, one example was Hywel Ceri Jones, the head of division for education training and youth, who came from a background in UK higher education: he was instrumental in moving

education policy onto the European agenda; and preparing the ground for the Erasmus programme (Corbett, 2005).

However, the Commission's 1976 Action Programme led to the UK government declaring what would become a familiar theme: that education was a non-Treaty area where the European Commission was exceeding its competence (Corbett, 2005). It aligned with Denmark to prevent further EC meetings in education and other areas for the next three years. During the UK's presidency of the EU in 1986, the UK government blocked the Commission proposal for a decision on funding for the Erasmus programme following the Thatcher no-expenditure rule, only to see her deputy prime minister, Sir Geoffry Howe, forced to backtrack weeks later and approve a Community-funded programme.

The climate changed when Tony Blair became prime minister in 1997. The government was happy to accept the invitation from Claude Allègre, the French minister of education, to join with France, Germany and Italy in signing the call for a European Higher Education Area of compatible structures to make European systems more visible worldwide and to drive up quality. The three continental ministers wanted to use 'Europe' to bring about national reform. At the moment of signing the Bologna Declaration to launch the EHEA process, the UK Labour minister concerned, Baroness Tessa Blackstone, following civil servant advice, held up the launch ceremony until a draft reference to the Commission was removed since it was seen as threatening the autonomy of UK universities (Witte, 2006, pp. 329–330).

The Blair government (in office until 2008) instituted an important reform designed to give coherence to government thinking and action on EU-related questions. It set up a cross-departmental Europe unit enabling EU and UK governance relationships to be constructed by creating a pool of expertise with enough staff of sufficient seniority to weigh on UK government decisions and, in effect, become policy brokers (Alexiadou & Lange, 2013).

This strengthening of administrative capacity did not stop university actors playing a major role in the Bologna Process at the time. The names of Kenneth Edwards, Roderick Floud and Ivor Crewe, representing Universities UK at different times, go down in Bologna history. Floud and Crewe were highly visible in the years 2005–2006, which coincided with a UK presidency of the EU and a Bologna ministerial meeting prepared in the preceding years by the British secretariat, which had been volunteered by the UK government for the job. Other Britons were active in developing Bolognas' soft regulatory tools. An example is Peter Williams who is seen as having invented Bologna 'descriptors' for quality assurance.

The new government, a Conservative-Liberal Democrat coalition, disbanded the central unit and returned responsibilities to their departments, significantly downgrading the number, the career level and the European expertise of the civil service (Alexiadou & Lange, 2013). Yet two pro-European

ministers held office for the period from 2010 up to, and beyond, the referendum. David Willettts (now Lord Willetts) served as minister of state between 2010 and 2014; Jo Johnson (now Lord Johnson) succeeding him from 2015 to 2018. But the concomitant promise of a referendum, the signs of populism in the 2014 European elections and the refugees crisis of 2015 were changing the political landscape.

Post-Brexit divergence from EU higher education and research policy

The UK government was no more prepared in 2016 for the political and policy consequences of the Leave Referendum victory for higher education and research than it had been in other policy areas. These strongly pro-European sectors lived with uncertainty during the three and half years it took to agree the political and legal forms of the UK's departure from the union, and the four and half years for their implementation.

The Withdrawal Agreement, which came into force on 31 January 2021, required a significant measure of de-Europeanisation not only for UK citizens but also for EU27 citizens with a UK professional connection. It ended freedom of movement, meaning UK citizens could no longer enjoy the widely appreciated rights to study, work and live in any part of the EU. EU27 students were newly categorised as international students and therefore subject to high third country fees. Freedom of establishment was ended with implications for the provision of commercial higher education services in EU member states. Researchers faced changes in the conditions under which they could work collaboratively with their EU partners on EU-funded programmes and activities.

After reviewing the legal implications of exiting the EU, this section tracks and critiques the protracted policy process that ensued during the implementation phase. It considers to what extent choices to diverge in research and higher education were a matter of law or politics as a consequence of the Withdrawal Act and the Trade and Cooperation Agreement (TCA) or as generated by the UK as part of its domestic policymaking.

Post-Brexit divergence for research

The UK government's overriding intention was clear from the early days in office of prime ministers Theresa May and her successor Boris Johnson that the government would respect the Brexit vote. Johnson's terms were for a significantly harder Brexit, even though the Leave campaign had argued for continued EU association with the Horizon programme, like Switzerland. HM Government's (2018) proposal for the future relationship between the EU and UK under Theresa May's premiership had encouraged optimism

about the prospects for the UK of retaining access to European project funding, networks and mobility schemes (Gibney, 2021).

Under the terms of the 2020 TCA (EUR-Lex, 2021), the UK was to contribute to, and participate in, EU research programmes – Horizon Europe, Copernicus and Euratom – as an associated country, at least for the duration of existing programmes. This optimism faded when the Johnson threat of breaking the Withdrawal Agreement over the Northern Ireland Protocol resulted in access to the Horizon and other research programmes becoming a bargaining chip in the negotiations. This 'forced divergence' caused consternation in UK institutions that were used to recruiting and training large numbers of international students and researchers, and project managers applying for, and in receipt of, European awards, who resented being made less European (*Nature*, 2022).

Research proved to be an area where the UK and EU were in agreement about their mutual interest in retaining close relationships (Smith & Bourguignon, 2021). The shared objectives when the new European Commission (2000) relaunched the European Research Area (ERA) in January 2020 included how to face the global challenges of climate change, the digital revolution and the pandemic. Core principles were defined as a 'researchers-centred, value-based, excellence as well as impact-driven area, in which researchers, knowledge and technology are supported and can circulate freely' (Council of the European Union, 2020, para 5). The UK and the EU were aligned on the need to withstand competition from the technological superpowers and to reach accommodation with their multiple and worldwide partners. They shared the industrial/economic growth focus, wanting reinforced attention to accountability and value for money in publicly funded research. From outside the EU, the UK government's strategy was resolutely to promote the UK's national political agenda. France and Germany, while paying lip service to an EU integrative agenda, were also intent on boosting the attractiveness of their own national research excellence in world rankings (Hantrais, 2022).

The TCA (EUR-Lex, 2021) set out the financial and other conditions with which the UK was to comply, and under which non-compliance would result in suspension. Although members of the UK research community were advised to expect association status, the TCA confirmed that, in implementing the withdrawal process, the UK risked being treated as a third rather than an associated country if it did not adhere to the EU's freedom of movement regulations. Even if the UK were granted associated status, the logic of this government 'choice' implied restrictions for UK access to EU programmes. The scientific community would not be allowed to retain all the advantages it had enjoyed under full membership. Like the sixteen other associated countries in Horizon 2020, the UK would be able to lead work packages but not coordinate projects. EU27 award holders hosted by a UK institution and successful UK applicants opting to remain in the UK could

not receive EU funding to support them, and the UK would not be able to receive more funding from the EU than it contributed (Reland, 2022, p. 23).

An argument advanced by proponents of Brexit was that the UK would thrive outside the EU (Sked, 2016). Post-Brexit, UK scientists would, it was claimed, be able to invest more resources in bilateral links with countries outside the EU, building on worldwide collaborations and developing alternative networking and funding schemes.

Many of the same institutions that were benefitting from EU funding, supported by organisations such as the British Council, had worked incessantly with research councils and national academies during the years of EU membership to develop bilateral partnership schemes with universities throughout the world. UK universities had a long tradition of university campuses and alumni networks in non-EU member states, stretching beyond the Americas across the Middle East and Asia, and plans were afoot in the 2020s to extend these networks.

The UK government had begun preparing its research strategy for post-Brexit growth during the Withdrawal Agreement negotiations, designed primarily to maintain and strengthen its wider international standing and attractiveness. Important policy developments, already mooted at EU and UK levels in the 2010s, had moved up the agenda, as greater attention was focused on technological and policy-relevant research, a domain where the UK had been a strong advocate for bridging the divide between fundamental and applied research (Hantrais & Lenihan, 2016). The HM Government's (2017) White Paper on *Industrial strategy: Building a Britain fit for the future* had set out plans for research and innovation in a post-Brexit world. In 2018, as part of its own internal restructuring, the UK brought together its six established disciplinary research councils with Research England, Innovate UK and Science and Technology Facilities in a mega funding agency. The purpose of merging the UK research councils was to strengthen 'the foundations of productivity: ideas, people, infrastructure, business environment and places' (HM Government, 2017**)**. To this end, UK Research and Innovation (UKRI) developed international offices in China, India, North America and Brussels.

The UK government intensified efforts to market research and higher education as part of its industrial strategy for global Britain, in synchrony with its Higher Education and Research Act (UK Parliament, 2017). Within this strategy, the Connecting Capability Fund (CCF) was designed to support international multidisciplinary projects managed by UKRI, who would assist higher education providers (universities among others) to deliver on the government's priorities through 'sharing good practice and capacity internally across the higher education sector', in the process of 'forging' external technological, industrial and regional partnerships (UKRI, 2021).

In March 2019, in the pervading climate of uncertainty surrounding association with Horizon, the then universities minister, Chris Skidmore,

commissioned Adrian Smith, director of the Alan Turing Institute, and Graeme Reid, at University College London (Smith & Reid, 2019) to produce a report on the implications of Brexit for UK research. The report, *Changes and Choices*, summarised in three stages what was most at stake for 'global public good'. The authors recommended a strategy to avoid dilapidating the UK's record of excellence, a possible fall in the foreign direct investment in UK research, and UK success in attracting talented staff and students. The absolute priority was to protect and stabilise the capabilities built up over decades of participation in EU programmes.

A second phase was to be devoted to preparing the transition to the government vision. Thirdly, whatever the government's choice, the authors recommended that it should be supported with resources that would permit continued excellence. Amid signs that the government was considering adopting a version of the US Defense Advanced Research Projects Agency (DARPA), the report recommended two new funding streams outside the national research budget: one to support the sort of creative ideas which emerge organically during research but fall outside the terms of a contract; the other an 'agility' fund to respond rapidly to new opportunities. In February 2022, the Advanced Research and Invention Agency (ARIA), modelled on DARPA, was passed into law. The Act made provision for 'long-term funding to support visionary high-risk, high-payoff scientific, engineering, and technology ideas [designed to] complement the UK's existing world class research system' (UK Parliament, 2019).

In response to the concerns of the UK research community, during the negotiations of the Withdrawal Agreement the May government had agreed to continue to support award holders of European funding under the Horizon 2020, Horizon Europe and ERC programmes in the UK. The Horizon Europe guarantee for the UK's R&D sector was made to the first wave of successful applicants in November 2021. Data for the period 2016−2020 showed that the UK had continued to obtain more ERC awards than any other EU member state, despite signs of a decline in the number of applications for starting grants attributable to the restrictions on mobility and the uncertainties surrounding the outcome of the UK's associated status (European Research Council, 2022). By 2021, the impact of Brexit on access to new Marie Skłodowska-Curie Actions (MSCA) Postdoctoral Fellowships was beginning to be felt, marked by a decline in the number of applications and awards (Cavallaro, 2022).

In March 2022 in an open letter, George Freeman (2022a), the Minister for Science, Research & Innovation, pledged to extend the funding guarantee in the event that the UK did not associate; he reiterated the government's commitment to 'a bold and ambitious longer-term offer that delivers many of the benefits of Horizon'. In a statement to parliament eight months later, while reaffirming the government's preference to associate with the EU, the

minister (Freeman, 2022b) set out a series of alternative measures designed to support staff retention and local talent strategies at eligible universities and research organisations; to ensure the UK's labs remain world class and at the cutting edge of R&D; and to offer universities and research organisations the discretion to apply the funding in ways that best suit their local needs. In a further effort to palliate the 'forced' divergence resulting from the unwanted effects of the 'choice' to leave the EU, the UK government was also seeking to stimulate and accelerate the growth of the UK's 'fusion' industry, as a leading global market.

The reorientation of higher education's 'foreign' policy

The referendum result showed higher education to be much more susceptible to political direction than research. Governments from 2016, committed to respecting the Leave vote, already had a new agenda to hand with a clear ideational foundation. The Leave campaign on higher education, fired up by the concept of 'Britain and the open seas' (Corbett, 2016b), and with prominent Leavers expressing scorn of the university establishment (Sked, 2016), saw future internationalisation as being on a global scale and Europe as mostly irrelevant.

The Leave alternatives, as exposed in evidence to a House of Lords committee in 2015 on the EU relationship (Corbett, 2016a), and amplified in a subsequent interview with Dominic Cummings, director of the Leave campaign (Bagehot, 2016), were for an expansion of internationalisation through student recruitment and stronger links with the 'Anglosphere', which operated successfully as the 'Five Eyes' defence network. Other items on its agenda were to charge EU students international fees instead of the British rate which they had enjoyed under EU non-discrimination law; and using part of the £10bn which the UK would no longer be paying into the EU budget for an expansion of UK research. Although Leave supporters were committed to getting the UK out of the EU, they nevertheless wanted to continue to exploit EU provision for non-EU members to participate in EU mobility programmes.

Data from Universities UK, the sectors' leadership body, and from the British Council, charged with developing the UK's overseas reach in higher education, had confirmed that Britain in 2016 was already doing exceptionally well in attracting international students and had a strong commercial service sector providing transnational education services (TNE) (Universities UK, 2022b). TNE included international campuses, joint schools, online programmes and degree-validating partnerships.

Brexit meant dismantling at least three EU elements, which by 2016 were structurally built into the UK systems. According to Universities UK at the time of the Referendum, 5 per cent of the student body were EU citizens. They

were generating £3.7bn for the UK economy and supporting over 34,000 jobs; 15 per cent of academics and researchers were from the EU. The UK had scored so consistently well in EU programmes that it counted on between 14 and 19 per cent of university income coming from European sources (Corbett, 2016a).

Launching its strategy for the internationalisation of higher education in March 2019, HM Government (2019) proclaimed that it wanted to have increased the number of international higher education students choosing to study in the UK to 600,000 by 2030, and the value of education exports to £35 billion per annum. The implementation strategy, enabled by an Education Champion to 'spearhead overseas activity', formalised structures of coordination and improved data on education exports. In 2019, the government additionally introduced a new UK post-study work route, the Graduate Route, allowing successful masters students to work two years after graduation and holders of PhDs three years. This move was welcomed by the universities. Much less popular was the government announcement of a British mobility programme, Turing, to replace Erasmus+. It did so, to the surprise of EU negotiators within days of the negotiators for the two sides having come to an agreement on continued British access to Erasmus (De Rynck, 2023).

The updated International Education Strategy (HM Government, 2021) revealed that the 600,000 international students target had been met. In 2020/2021, 605,130 international students were said to be studying in the UK. The value of education-related exports and transnational education activities was already estimated at £25.2 billion at current prices. Given recent growth, the estimated annual increase needed to meet the £35 billion ambition by 2030 was around 3 per cent per year. Recruitment efforts led by Sir Steve Smith, the Education Champion and a former vice-chancellor, were underway to increase student recruitment from India, Indonesia, Saudi Arabia, Vietnam and Nigeria, targeted as areas with significant middle-class populations.

Transnational activities were reported in 228 countries and territories, with 510,835 students studying via UK TNE, marking a 12.7 per cent increase from the previous year (Universities UK, 2022b).

Studies were in progress on the relevance of higher education for free trade agreements. A new international teaching qualification, 'International Qualified Teacher Status' (iQTS), was being developed, and the strategy included the goal of increasing export opportunities for UK chartered professional bodies, and for UK special educational needs and disabilities providers (HM Government, 2021).

The government's alternative mobility programme, the Turing scheme, designed to create 41,000 instances of mobility to 150 destinations, was initially greeted with scepticism. A Chatham House analysis showed that, despite what the government said, Turing was not exceptional in either its

claims to have a worldwide reach, nor in its concern for disadvantaged students (Horton & Fras, 2021). Nor did it build on the bilateral and multilateral cooperation for mutual learning underpinning the Erasmus+ concept of reciprocal exchange.

This revamped UK international strategy away from Europe was openly market-oriented, in line with the government's ambition to increase educational exports. The British Council website is illustrative: at the end of 2022 it showed a marketing intelligence brief for the United Arab Emirates, the latest trends in China's outbound student market and news that more study visas were being issued to Indian than to Chinese students.

While the international strategy opened up many opportunities for commercial providers, it was also vital for the sustainability of the UK's own higher education systems. In 2018/2019, international students were contributing £15bn in fees to the higher education budget of £39bn, and overall, they were contributing £28.8bn to the UK economy (Universities UK, 2022a). The post-Brexit strategy assumed a continuation of the trend.

Unresolved conflicts remained within the British government, between ministers responsible for higher education and research who wanted to expand the number of overseas students in the UK, and those led by the Home Office (Interior) Minister who wanted to cut them back, as part of a government target for reducing immigration.

In January 2023, the Higher Education Statistics Authority (2023) released international student statistics for the 2020/2022 academic year, the first year that the UK/EU exit legislation took effect. The data confirmed the overall increase in UK international enrolments of which the UK government had already boasted, whereas a sharp drop was seen in the number of EU students once they ceased to be treated on the same terms as British citizens under EU law and became liable to the much higher international student fees. The number of new EU undergraduates was down by 63 per cent; almost 80 per cent for Romania and over 70 per cent for Poland. New postgraduate numbers dropped less sharply but were still a significant 49 per cent.

In a fast-evolving national and global socio-economic and political context, such as pertained while the associate status of the UK remained unresolved, reliable trend data for 2022/2023 had yet to be produced. The UK Research Office in Brussels had been urging UK researchers to continue applying for Horizon Europe awards. As for third country applicants, from 2021, proposals from UK researchers could still be evaluated in Brussels. But any UK projects accepted could no longer be badged as EU awards unless they were hosted by an EU27 member state. Despite these limitations and the climate of uncertainty, examples can be found of UK institutions that were heeding this advice, enabling them to record an upturn in the number of UK-EC/ERC supported awards in 2021/2022. The same universities were

actively seeking to boost their research income from other sources and were reinforcing their collaborations within and beyond the EU (Hantrais & McConnell, 2023).

Conclusions

This article has examined UK post-Brexit policies in the context of the EU policies on research and higher education pursued during the years of UK membership. With the focus on the role the UK government and its academic and research communities played before and after the referendum, the authors ask whether Brexit has been the main cause of UK divergence in these two areas or whether the UK has consistently pursued a semi-autonomous policy.

The analysis shows, firstly, that UK policy communities have historically made positive contributions to European policy development during EU membership. British sectoral actors have played lead roles in European policy networks and, through their collective efforts, UK civil servants and experts posted to Brussels have helped create policy for an EU with multiple national traditions. Among the UK's legacies are their work in promoting the ERA and in embedding the criteria of excellence into the protocols for ERC grants, and in building the EHEA through the Bologna Process.

Secondly, the UK policy sectors have made a major contribution to the enhancement of the EU's standing as a knowledge area. British actors have consistently pushed for institutional linkages between higher education and research policy. When the ERA was relaunched in 2020, the Council's conclusions reflected the UK's legacy by making explicit the importance of enforcing linkages between higher education and research policy, which had not, it recognised, hitherto been taken far enough. In linking ERA and EHEA, the Council of the European Union (2020, para 27 iv) stressed the need to develop stronger synergies and interconnections between the two areas as is UK practice, citing 'institutional transformations, research careers, science education, training, international cooperation and knowledge circulation as possible fields of a more determined cooperation'.

In the higher education sector, British experts helped to create some of the instruments designed to make European higher education systems comprehensible and compatible, particularly at the politically sensitive time when the 2004 EU enlargement was taking in new member states from Central and Eastern Europe.

The article has provided insights on UK government attitudes before and after Brexit. It might have been assumed that the UK's entrenched reputation as one of the EU's 'awkward partners' (George, 1998) would demonstrate pre-referendum divergence. But the record suggests that UK governments, especially after the knowledge economy turn of the 1990s, were intellectually

aligned with Commission thinking. Only when it came to implementing policy did they adopt a strategy of deflection (Alexiadou & Lange, 2013). Every member state reinterprets EU policy through a national lens (Sin & Saunders, 2014). If the British were more ambiguous than most, it was in thinking that they were setting an example, as illustrated by the Bologna reforms and in applying the OMC to higher education. They were always on the lookout for 'Commission creep' (Pollack, 1994).

Brexit gave the UK government a freer hand to try and reinvent higher education and research policies that previously had a strong European component. But a 'hard Brexit' agenda, dominant within the governing party, was apparent in the unexpected decision to quit the Erasmus programme in favour of its newly created Turing mobility programme, which fitted with the Brexiteers' demands (Corbett, 2020).

The article explains why the research community has been in a much stronger position than higher education in relation to government. Based on evidence from their experience of being part of the European hub in a highly technological interconnected global world, UK scientists thought they had convinced government that it was in the national interest to remain part of the Horizon programme, as opposed to unspecified promises that the UK would be a 'science superpower'. The research community could not have guessed in 2016 that its future status would depend on the outcome of higher policy decisions related to the Northern Ireland Protocol.

The analysis in this article leads to the conclusion that it is not Brexit that caused political divergence from the EU in research and higher education since some of the post-Brexit government choices have roots in UK policies being already developed between 2010 and 2016. What makes Brexit distinctive is that it has provided the opportunity for the current government to make political choices that fit with an explicitly anti-EU vision.

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