The Implications of the EU Referendum for UK Social Science: Post-referendum Options for UK Social Scientists

Professor Linda Hantrais FAcSS
Visiting Senior Fellow, Centre for International Studies
L.Hantrais@lse.ac.uk

Dr Ashley Thomas Lenihan
Visiting Fellow, Centre for International Studies
A.Lenihan@lse.ac.uk

Abstract

This paper undertakes a substantive analysis of the relationship between UK social science and the European Union in the context of the debate about the future development of research following the UK vote in the 2016 Referendum to leave the European Union. The available evidence suggests that, compared to other sciences in the UK and to social scientists in other EU Member States, over the past two decades UK social scientists may have benefitted to a greater extent from the EU funding and capacity building opportunities provided by EU programmes. Recent developments in science policy, at national and European level, in favour of a more 'integrated' approach to research funding and programmes have created new challenges for UK social scientists, requiring innovative forms of cooperation, if they are to retain and build on the international reputation that they established within the EU. In light of the expected negative consequences of a decision to leave the EU, this paper considers some of the options open to UK researchers, and in particular UK social scientists, in the negotiations with EU Member States.

Making the case for UK social sciences in Europe

While much was written and published in months leading up to the Referendum, in reports, the press and innumerable blogs, recording the amount of funding the UK receives from the EU for R&D and showing how UK science benefits from EU membership in other ways, the statistics presented in these media were rarely broken down by discipline (see for example Corbett, 2016; Full Fact, 2016; LSE Brexit vote, 2016; Scientists for Europe, 2016; UCL eurofog, 2016).

Yet, the information that is available, and is presented in this paper, about UK social science and the EU suggests that social scientists in the UK may have gained more from EU funding and capacity building activities than researchers in other disciplines in the UK or than social scientists in most other EU Member States. Consequently, they are also likely to have more to lose if the UK leaves the EU.

The role of EU funding in UK social science

It is notoriously difficult to calculate exactly how much the EU contributes to total UK Higher Education research funding: estimates vary between 14 and 19%, with important regional variations (see Full Fact funding analysis, 2016). According to the Royal Society (Science Policy Centre, 2013, pp.12−13, 15, 18), the UK received an estimated €3.4 billion more than it paid into the EU between 2007 and 2013 in terms of funding for research, development and innovation activities, mostly through the EU's Framework Programmes, and to a lesser extent through the EU Structural Funds that are designated for research & development. The UK received the second largest proportion of funding in relation to the size of the economy as measured by GDP during the 7th Framework Programme, with universities receiving 71%; the UK also ranked second in terms of both the budget share of signed grant agreements and number of participants in 2014 (European Commission's Directorate-General for Research and Innovation, RTD, 2015, Annex F). In addition, in 2016, the UK reportedly obtained the largest share of signed grant agreements among participating countries in the Horizon 2020 Framework Programme (Community Research and Development Information Service, Cordis, 2016).

Figures prepared by the UK's Higher Education Institution for the Research Excellence Framework: panel overview reports (REF14, 2015a) provide a breakdown by source of funding (research councils, UK charities, UK government, UK industry, EU government, EU other, non-EU, other) for four groupings of disciplines: life sciences, engineering & physical sciences, social sciences, and the arts and humanities for the period 2000−2013.
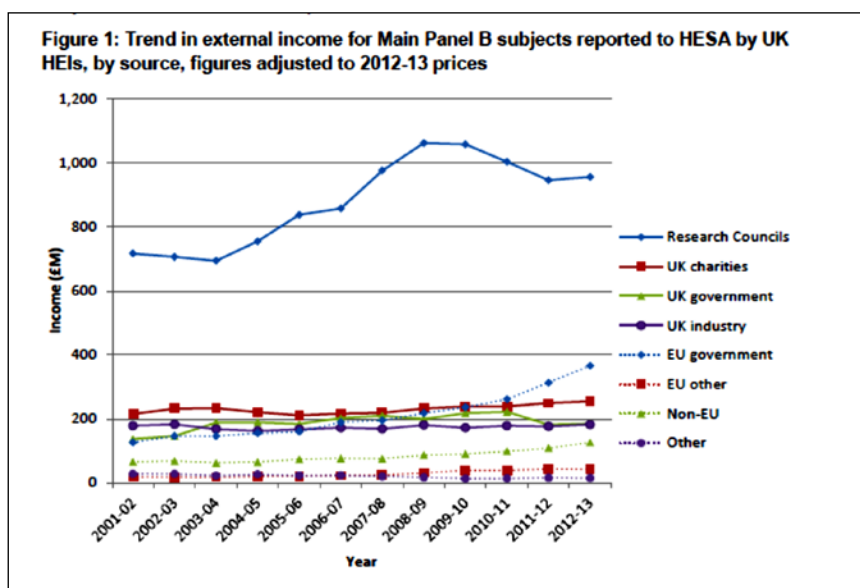
Graphs 1–4 extracted from these reports show that, while UK research council and government funding for the life sciences (REF2014, 2015b) has been rising consistently since 2000 and has remained relatively constant in engineering & physical sciences (REF2014, 2015c), UK government and research council funding for social science (REF2014, 2015d) has been declining since peaking in 2004 for government funding, and in 2009 for research council funding. Since 2006, the volume of EU funding for social sciences has, however, been increasing more rapidly than in the life sciences, bringing the 'EU government' (see Figure 1.2 Note for definition) contribution close to that received from the UK government, and to more than half the amount awarded by UK research councils. By contrast, the life sciences rely most heavily on funding from charities and the UK government; and engineering & physical sciences and arts & humanities (REF2014, 2015e) depend for most of their funding on their respective research councils.

Graph 1: Panel A Life Sciences: Research income in MPA subjects reported to HESA by UK HEIs (figures adjusted to 2012-13 prices)
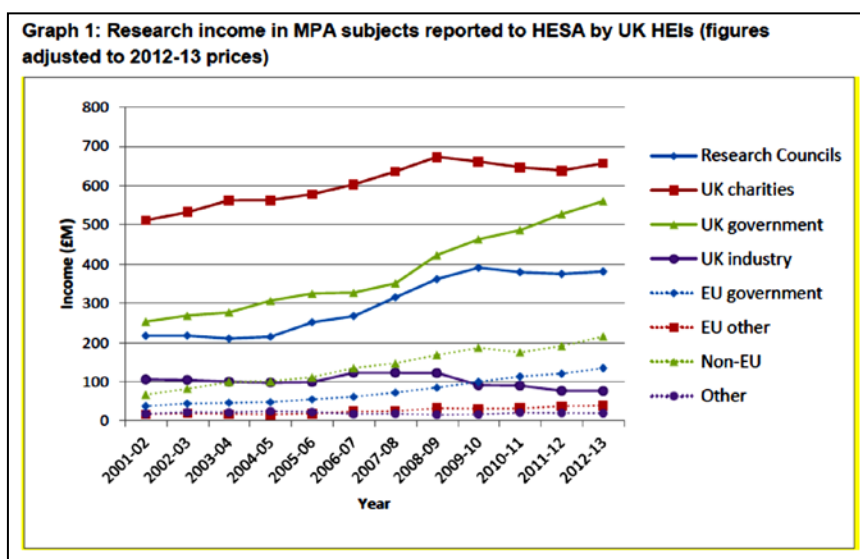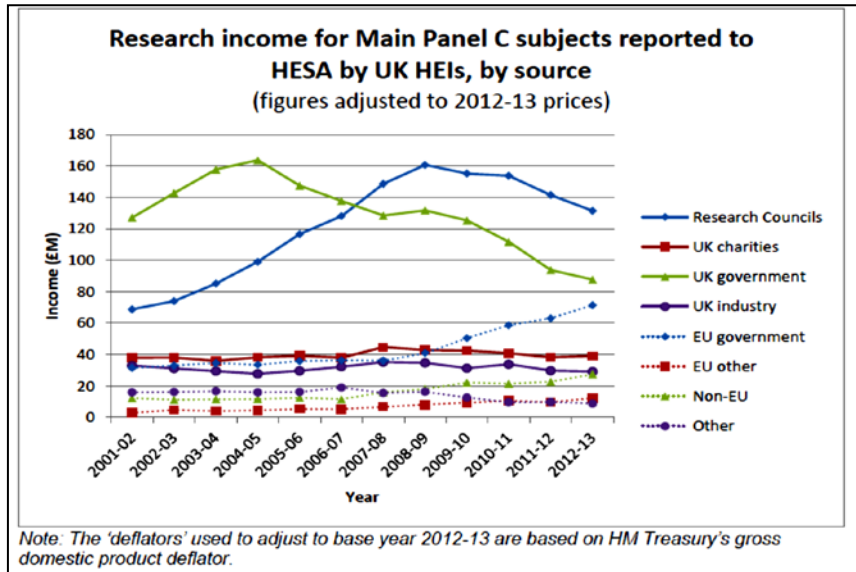

Source: REF14, 2015b, p.14.

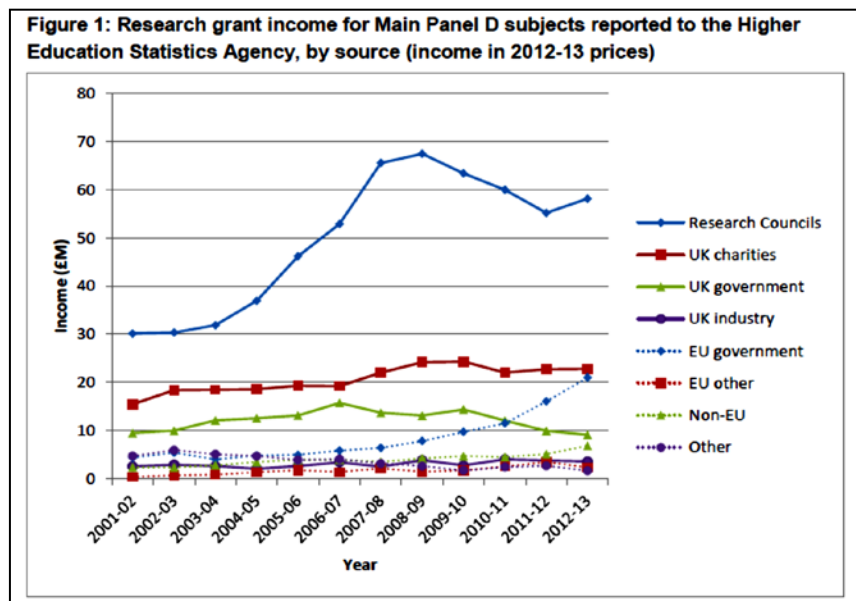**Graph 2: Panel B Engineering & Physics**

Source: REF14, 2015c, p.19.

Graph 3: Panel C Social Sciences

Research income for Main Panel C subjects reported to HESA by UK HEIs, by source (figures adjusted to 2012-13 prices)

Note: The 'deflators' used to adjust to base year 2012-13 are based on HM Treasury's gross domestic product deflator.

Source: REF14, 2015d, p.24.

Graph 4: Panel D Arts & Humanities

Figure 1: Research grant income for Main Panel D subjects reported to the Higher Education Statistics Agency, by source (income in 2012-13 prices)

Source : REF14, 2015e, p.23.

The LSE case study presented in Annex 2 exemplifies these trends. The London School of Economics has been selected here as an institution in the UK wholly devoted to social science & humanities. Charts 2.2 and 2.3 confirm both the increasing reliance on the EU for funding of research at LSE and the decline in UK research council funding over time.

EU Framework Programmes

The breakthrough in EU funding for the social sciences in general, and for UK social science in particular, came with the introduction of a Targeted Socio-Economic Research (TSER) funding stream

under the Fourth Framework Programme (FP4 1994–1998), when the overall FP budget was doubled (*OJ* L126 – 18/05/1994; No 1110/94/EC).

In addition to targeted socio-economic research, the social sciences could also access funds under the themes covered in the first, second, third and fourth activities in FP4 in coordination with research in the 'exact sciences, natural sciences and engineering', 'with a view, in particular, to exploring the socio-economic context of the activities planned and possible consequences thereof.' (*OJ* L126 – 18/05/1994; No 1110/94/EC, p.7). The themes opened for coordination with the social sciences included environmental research and its economic and social implications, sustainable development, food production and transport, which are similar to those flagged in Horizon 2020 (see below).

The extent of participation and coordination by UK social scientists in the Fifth, Sixth and Seventh Framework Programmes is reflected in the rise in EU funding indicated in the REF14 figures shown in Graph 3, although exact amounts for each of the programmes are difficult to calculate.

Figures 1.1–2 provide a further breakdown of the data for Panel C for the period 2008−2014, where 2008 marks the point at which UK research council funding was being cut back across the disciplines in the context of the global economic crisis. The figures and tables illustrate the steady growth in EU funding from that date for most social science disciplines, particularly for business & management, but they show a small decline, in both cases, at the end of the period for anthropology & development studies, politics & international studies, and sociology.

These figures should, however, be treated with caution, as the assignment of units to the different sub-disciplines within the UK may be misleading. Prior to 2008, data by subcategories are available only for 'business & management', 'geography' and 'social studies'. In addition, for the purpose of making international comparisons, it should be noted that the mix of disciplines broadly classified as 'social sciences' or 'humanities' varies from one national context to another (Hantrais, 2009, pp.161–5). The Participant Portal for Horizon 2020 (European Commission 2016b) provides the breakdown of disciplines categorised as 'social sciences, education, business and law' or 'humanities and the arts', based on the UNESCO International Standard Classification of Education (ISCED 2011), which does not precisely match the breakdown applied by the UK REF14 panel in the figures and tables (see Annex 3).
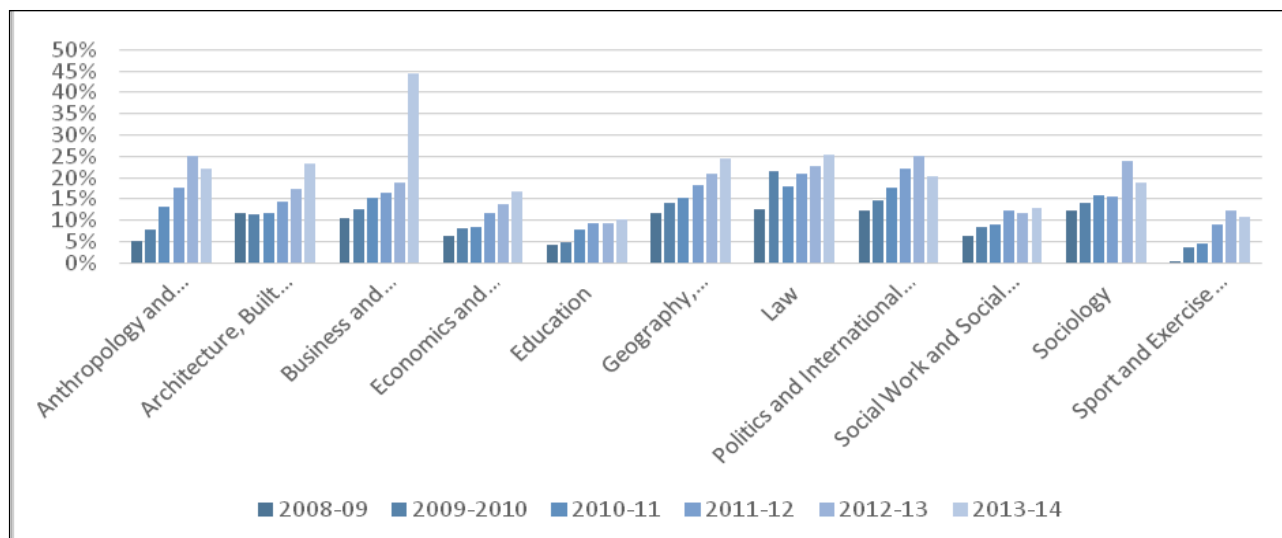
Figure 1.1: Panel C, all EU funding, 2008–2014, as a % of all funding by sub-discipline
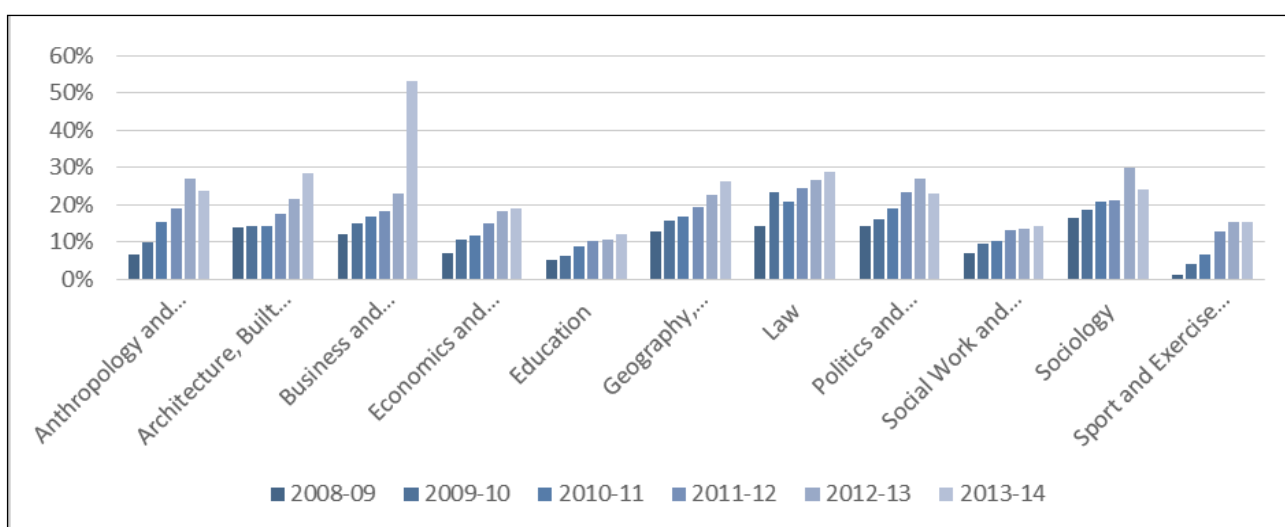
Source: Compiled by Jon Deer (LSE Research Division) from REF14 data.

Note: **All EU** funding includes the support from EU Industry/corporate sector, EU Charities and foundations, EU other and EU Government.

Figure 1.2: Panel C, EU government funding, 2008–2014, as a % of all funding

Source: Compiled by Jon Deer (LSE Research Division) from REF14 data.

Note: **EU government** funding accounts for the funds from the Framework Programmes but may also include funding from other research programmes in the Directorates General.

Comparative data on UK participation in Horizon 2020, the EU Framework Programme for Research and Innovation (2014–2020), which does not have a targeted socio-economic stream, are more readily available, although they do not provide an assessment of the 'quality' of social science participation in the projects. The 2015 report by DG Research and Innovation on the *Integration of Social Sciences and Humanities in Horizon 2020* (Hetel et al., 2015) does not identify projects with a fundamental role in the core research. Nor does it show whether the social science partner is delivering peripheral 'impact'. The figures in the Commission report therefore overstate the level of social science involvement in the 'flagged' topics. The available evidence also suggests that the social science and humanities (SSH)-flagged projects tend to be for coordination actions rather than 'research'. These projects are designed to help refine future topics but do not directly support research.

Published data for SSH-flagged topics in the Societal Challenges and the Leadership in Enabling and Industrial Technologies (LEIT) parts of Horizon 2020 show that 219 out of the 308 (71%) projects funded have at least one SSH partner in the project. According to the 2015 Commission monitoring report:

> At individual country level, the UK is best represented with 146 partners accounting for 16% of total SSH partners. Germany comes in second, with 95 partners and a share of 10%, followed closely by the Netherlands (80 partners and a share of 9%), Italy (77 partners and a share of 8%), and Belgium, Spain and France that each account for 7% of SSH partners. As a result, 64% of the SSH partners are affiliated with only seven countries. (Hetel et al., 2015, pp.10–11)

In total, 77 of the 308 (25%) projects funded under the SSH-flagged topics in the Societal Challenges and the LEIT parts of Horizon 2020 are coordinated by an SSH partner. The countries with the highest proportions of SSH coordinators are Germany (15 projects − 19%), the Netherlands and UK each with (10 projects – 13%), Spain (7 projects – 9%), Italy (6 projects − 8%), France (5 projects − 6%) and Belgium (4 projects − 5%). Together, these seven countries account for 74% of the SSH coordinators (Hetel et al., 2015, p.13).

The story is similar for each of the societal challenges, with the UK regularly displaying a creditable performance (Hetel et al., 2015, pp.21–34):

<u>Societal Challenge 1</u> *Health, Demographic Change and Well-being*: the UK was the most represented country with participation in 21% of projects;

<u>Societal Challenge 2</u> *Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy*: the UK was the most represented country with 20% of projects and, with France, had the largest number of coordinators;

<u>Societal Challenge 3</u> *Secure, Clean and Efficient Energy*: the UK was second to Germany for participation with 11% of projects;

<u>Societal Challenge 4</u> *Smart, Green and Integrated Transport*: the UK was equal second with Belgium with 14% for participation; only 2 projects were coordinated by social scientists;

<u>Societal Challenge 5</u> *Climate Action, Environment, Resource Efficiency and Raw Materials*: Spain and the Netherlands led with 6 projects each, followed by Belgium and the UK with 5 each, 2 projects were coordinated by Germany and one each by the Netherlands and the UK;

<u>Societal Challenge 6</u> *Europe in a Changing World – Inclusive, Innovative and Reflective Societies*: the UK led with 14% of projects, followed by Germany with 11%, and the UK recorded the largest number of social science coordinators with 4, behind Italy with 5;

<u>Societal Challenge 7</u> *Secure Societies – Protecting Freedom and Security of Europe and its Citizens*: the UK participated in the largest number of projects with 17%; the Netherlands coordinated 4 projects and the UK 2;

<u>LEIT</u>–<u>ICT</u> *Leadership in Enabling and Industrial Technologies – Information and Communication Technologies*: the UK participated in 27% of projects, almost double the percentage for the Netherlands, but neither country coordinated any of the projects.

Across the societal challenges, the most prominent groupings of social science disciplines are consistently economics, business & marketing, and political science, public administration & law.

European Research Council awards

UK social scientists have also performed particularly well, in comparison with other sciences and other countries, in obtaining European Research Council grants, which are awarded to individuals solely on the basis of merit (research excellence). As noted in 2013 by Helga Nowotny, the President of the European Research Centre, in an article published in *The Guardian*:

> In the ERC, projects in the social sciences and humanities are treated exactly like those in our other domains: physics and engineering, and life sciences. Around 17% of the ERC's total budget goes to the social sciences and humanities. These funds are directed towards a wide array of cutting-edge projects…. The UK currently holds the number one position in funding terms within the social sciences and humanities domain, from our pan-European ERC competitions. (Nowotny, 2013)

In their submissions to various government consultations, the Joint National Academies (2013) and the British Academy (2015) confirmed the success of UK social scientists in obtaining ERC funding. Based on evidence from the ERC's website statistics page, they found that, when ERC Starting Grants awarded for the period 2007–2015 to UK-based academics across the three domains are broken down by domain, UK-based academics obtained 19% of awards in the physical sciences & engineering, 17.3% in the life sciences, and 33.3% of all social sciences & humanities awards. UK social sciences & humanities researchers continue to obtain more of these grants than their colleagues in the Netherlands, Germany and France combined, the three countries with the next largest number of Starting Grant awards. UK-based academics obtained 23.5% of all awards in the seven rounds of ERC's Advanced Grants since 2008: with 20.3% of the awards in the physical sciences & engineering, 23.4% in the life sciences and, in a performance almost as impressive as for the Starting Grants, 31.2% of all Advanced Grants awards in the social sciences & humanities. In the two Consolidator Grants rounds in 2013 and 2014, UK-based academics obtained 21.6% of all awards across the three domains. By domain, the proportion is 22% in the physical sciences & engineering, 17.3% in the life sciences and 29.1% in the social sciences and humanities.

Commenting on these findings, the British Academy has argued that:

> This performance of the social sciences and humanities underlines their excellence in the UK's research sector. It also illustrates that these disciplines are truly an area of distinctive UK excellence that is critical to the success of UK research internationally and that UK social science and humanities research is recognised as leading in its field. It indicates that the benefit UK-based academics gain from the ERC as it stands makes an important contribution to the UK research funding landscape, and particularly for the humanities and the social sciences. It also illustrates that the UK is currently seen as an excellent location in which to conduct research and collaborate internationally. (British Academy, 2015, p.2)

For the period 2007–2015, UK social scientists obtained a total of 190 ERC Starting Grants, more than double their nearest rivals the Netherlands (with 82) and Germany (with 60). The number of awards to UK social scientists peaked at 40 in 2011, constituting almost 80% of the total for all other countries combined. For Advanced Awards between 2008 and 2014, UK social science was also in the lead with 110 awards compared to 45 for France (statistics filtered by year and tabulated in numbers of awards, Country of Host Institution per call year: 2007, 2009, 2010, 2011, 2012, 2013, 2014, 2015, European Research Council, 2016). In 2015−2016, the UK is reported to have received more than 50% (30 out of 59) of the ERC Advanced Grants awarded in the social science & humanities domain, with a larger proportion of total awards going to the UK for social sciences than for life sciences and the physical sciences & engineering (ERC Advanced Grants Press Release, 14 May 2016).

Individual institutions in the UK have performed particularly well in competing for ERC funding to support fellowships in the social sciences & humanities. Data for UCL indicate, for example, that of the c. £45 million annual funding from EC/H2020 around 15−20% is for social science & humanities categories, primarily (80%) for excellence-based ERC fellowships, thereby positioning UCL social sciences very high in the ERC rankings for social sciences & humanities (data supplied by Michael Brown, UCL European Research and Innovation Office).

As shown by Annex 1 Charts 1.1 and 1.2, Oxford, UCL, Cambridge, LSE and Edinburgh are the top ERC UK award holders for SSH panels, with Oxford and UCL peaking in 2013. In comparison to other EU Member States, since 2007 five of the EU's top ten recipients of ERC awards under the social science and humanities panels (treated separately) were in the UK. Annex 2 Chart 2.1 shows how LSE's engagement with the ERC since its creation in 2007 has been associated with a steady increase in the number of ERC awards, with particularly strong growth since the start of Horizon 2020.

Capacity building

A report prepared by Elsevier for the UK's Department of Business, Innovation and Skills on *The International Comparative Performance of the UK Research Base* in 2013 highlighted the strengths of UK social sciences in relation to a wider range of countries. The UK's competency map was shown to differ from those of key comparator countries (US, Germany, Japan and China) in being focussed towards biomedical and social sciences. The most frequently-occurring keywords among the UK's 480 competencies point to the predominance of competencies in specific research topics related to health, medicine and social sciences (Elsevier, 2013, p.51).

Within the European context, UK universities have benefitted not only from the financial resources obtained from the EU, but also from the mobility of staff and students within the EU through programmes such as the Marie Skłodowska-Curie Actions, where, according to Joint Research Councils (2013, p.2), UK researchers' participation has 'enriched the talent pool for UK research' by attracting 'top talent' to the UK and allowing UK researchers to engage in a larger 'interdisciplinary research community'.

Analysis by the Higher Education Statistics Agency shows that, in 2013–2014, 15% of academic staff in UK Higher Education were non-British EU nationals (HESA 2015 Staff in Higher Education data,

supplied by Universities UK). The exact percentage varies both by region and by discipline. Across the social sciences, the figure rises to 16%. It is higher still for humanities and languages, and for sciences and maths, both with 21%. HESA data for the LSE in 2004–2005 show that, for research staff, the largest 'nationality group' were UK staff, but by 2014–2015 the largest nationality group was EU staff (Annex 2 Chart 2.4.1); for teaching and research, the position is stable for UK staff but displays growth in EU staff (Chart 2.4.2). Strong growth is recorded for non-EU nationals, but it is slower than for EU nationals. Figures for all staff in the three nationality groups show that, by 2013–2014, EU staff outnumbered UK staff (Chart 2.4.3).

When assessing the benefits that the EU has brought to the UK, it is important to ask how social scientists in the UK have used EU funding, and what impact it has had on the way that social sciences are conducted in the UK. Before the launch of the European Research Area (ERA) in 2000, with the objective of strengthening scientific and technological collaboration in a unified area open to the world, UK social scientists tended to be introspective and parochial. When they did look further afield, they most often concentrated on the 'Anglo-Saxon' world. The relative paucity of UK government funding for social science research, and the experience of having to apply for research funds from a variety of sources did, however, give them an edge when the opportunity arose to access EU support. EU funds enabled them to build international project teams and collaborative networks and, under FP5 in preparation for EU enlargement, to extend their networks of researchers to Central and Eastern European countries.

As noted by the House of Lords' Select Committee on Science and Technology with reference to UK science in general,

> …the UK plays a leading role in the development of EU policies and decision-making processes that relate to science and research. UK scientists in various EU fora act to ensure that the UK's voice is clearly heard and that the EU remains aligned with the advancement of UK science, particularly by shaping the balance between funding awarded on the basis of research excellence and that awarded for capacity building. (House of Lords, 2016, p.25)

The continued success of UK social scientists in obtaining funding under the Framework Programmes, including Horizon 2020, in comparison to other disciplines and other countries is indicative of their importance as international, qua European, players; it reflects the significant role they have performed in shaping European programmes and funding schemes, and in influencing standards and quality control through their membership of governing boards, advisory and programme committees, and evaluation panels. Their competence has also been recognised in the lead position they have achieved in public policymaking at national and international level (British Academy, 2008).

As the first President of Science Europe, an association of some 50 European Research Funding Organisations (RFOs) and Research Performing Organisations (RPO), founded in 2011, the former Chief Executive of the ESRC, Paul Boyle, was, for example, well placed to acknowledge the importance of the UK's voice in the decision-making process (House of Lords, 2016, p.22). The current Director of Science Europe, Amanda Crowfoot, who previously directed the UK Research Office in Brussels, also has a UK SSH background.

UK social scientists have maintained a strong presence in other European research funding bodies, such as the European Science Foundation (ESF), with its Standing Committee for the Social Sciences, chaired between 2007 and 2013 by a leading UK social scientist, Roderick Floud. The European Social Survey was initiated by Roger Jowell at the National Centre for Social Research in London in 1995 with ESF support, before obtaining funding under FP5 in 2000, being awarded the Descartes Prize in 2005 for 'excellence in collaborative scientific research', and becoming one of the first Research Infrastructures to be awarded European Research Infrastructure Consortium (ERIC) status in 2013 (House of Lords 2016, p.56), then under the directorship of Rory Fitzgerald at City University in London.

The ERA-NETs were originally established in FP6 to step up the cooperation and coordination of research activities between research councils carried out at national or regional level in member and associated states through a single action. In the social sciences, the first major research initiative of the NORFACE ERA-NET, which was established in 2004, was to fund the Centre for Research and Analysis of Migration (CReAM) in the Department of Economics at University College London under its German director, Christian Dustmann.

UK social scientists have capitalised on the advantages they had over their EU neighbours by contributing to capacity building in less advanced research communities, particularly the new Central and Eastern European Member States, by drawing on their experience of constructing large-scale multidisciplinary teams, where English is often the lingua franca (Hantrais, 2009). Their networking experience has been given free rein through access to the tools (workshops, conferences, training, schools and short-term scientific missions) provided, among other schemes, by COST Actions (2016), which are designed to be a 'flexible, fast, effective and efficient networking instrument for researchers, engineers and scholars to cooperate and coordinate nationally funded research activities'.

Post-referendum options for UK social scientists

The evidence assembled in this paper confirms that, when compared to researchers in other disciplines in the UK and to social scientists in most other EU Member States, UK social scientists have benefitted to a greater extent from EU funding and from EU support for capacity building and networking activities. The performance of social scientists has been particularly creditable in obtaining European Research Council grants awarded for research excellence.

While the proportion of EU funding for UK social sciences has been increasing, UK government and research council funding has been declining, and the social sciences have received relatively little funding support from charities, unlike the life sciences. The available trend data demonstrate that the volume of EU funding received by UK social scientists rose consistently with the introduction of a dedicated funding stream for Targeted Socio-Economic Research (TSER) under the Fourth Framework Programme (FP4, 1994–1998). Opportunities in FP4 for social scientists to be involved in coordination activities, by contributing to analysis of the economic and social implications of projects conducted by researchers in the natural sciences, in areas such as sustainable development, food production and transport, did not, however, enable them at that stage to overcome the entrenched divide between natural and social sciences, resulting in the social sciences being depicted at times as a 'handmaiden' to the natural sciences.

The involvement of UK social scientists in EU-funded research programmes has been a two-way process. Through their participation in programme and steering committees, evaluation panels and consultative and advisory groups, they have played an influential role in shaping the EU research landscape, its research agenda, priorities, processes and quality control mechanisms. Through their coordination and participation in EU projects and networks, UK social scientists have honed their skills at working within, between and across research cultures and disciplinary boundaries. As EU-funded projects have increasingly focussed on the policy implications of research, UK social scientists have also been able to demonstrate their experience and expertise in delivering impact and in brokering knowledge transfer between researchers and policymakers, and with the wider public.

The advent of Horizon 2020 created challenges reminiscent of those encountered in earlier Framework Programmes, and similar to those being faced within the UK in the context of the development of a more 'integrated' approach to research funding across research councils, as outlined in the UK Government's White Paper on Higher education: success as a knowledge economy (UK Government 2016, p.6). According to Jo Johnson, the Minister of State for Universities and Science in the Cameron Government, the focus of UK Research and Innovation (UKRI, replacing and extending the remit of Research Councils UK) is to be 'cross-cutting issues that are outside the core remits of the current

funding bodies, such as multi- and inter-disciplinary research, enabling [UK Higher Education] to respond rapidly and effectively to current and future challenges'. The experience of Horizon 2020 suggests that UK social scientists should, in the future, be well placed, at least in comparison to most of their EU counterparts, to bridge disciplinary boundaries.

From a UK HE funding perspective, one of the key issues now facing UK social scientists is how to respond to this prioritisation of specific research 'challenges' in funding programmes, since it narrows the research fields that can participate in and benefit from funding. The question is most salient when multi-disciplinary programmes or 'cross-council' initiatives become more favoured by policymakers, as is the trend both in the UK and the EU. As noted above, past experience of the EU programmes shows that social sciences lose out when they are 'embedded' in hitherto 'technical' science challenges. The concern for social scientists is, therefore, to find the space for support of research in the fields that do not easily fit under the priority themes and for more academically-driven (fundamental) research (comment supplied by Deer, LSE Research Division, May 2016).

UK social scientists already cooperated with academic researchers elsewhere in Europe before the UK, Southern, Nordic, and Central and Eastern European countries joined the European Union, and before the advent of the Framework Programmes as we know them today, exemplified by the European Coordination Centre for Research and Documentation in the Social Sciences (founded in 1963). However, for most social scientists, collaboration was on a much more limited scale, often confined to a small number of countries and a single-disciplinary team. In the context of the Directorate-General for Research and Innovation (RTD), the ERA and Horizon 2020, EU funding and logistic support have radically transformed the European social science landscape. The EU has been important for UK social science because it has offered access to a greater diversity of research support than domestic programmes, notably through European Research Council and Marie Skłodowska–Curie programmes.

As demonstrated in this paper, UK social scientists have acted as significant players in the transformation process and have become embedded within it. Universities UK recognise that:

> The majority of our [UK science] international collaborative partners in research are in other EU member states. Our collaborations with EU partners like Germany and France is [sic] growing faster than with other countries – showing how much we stand to lose if UK universities were to be cut off from EU programmes and influence. (Adams & Gurney, 2016, p.1)

Clearly, further developments in Horizon 2020 and beyond require new forms of cooperation. In the week following the Referendum, the UK Research Office in Brussels advised UK Higher Education institutions that, until it has exited from the European Union, 'the UK's status as a full participating member of the Horizon 2020 research funding programme has not changed as a result of the referendum vote and UK institutions are still currently fully eligible to apply for Horizon 2020 funding'. This message was reiterated by the UK government and the European Commission. It means not only that the UK organisations can seek to maximise the window of opportunity, while they remain eligible for EU funds, to consolidate collaborations with researchers in other Member States, but also that they can continue to participate in consultations about the future shape and content of the Framework Programmes through EU level organisations such as the European Alliance for Social Science and Humanities.

The Framework Programmes offer three primary categories of national participants: EU Member States, Associated Countries and other Third Country participants. As an EU Member State, the UK has enjoyed the right to full participation and coordination of Framework Programmes.

Associated Countries have the same eligibility in terms of funding as EU Member States: their researchers can be principal investigators (coordinators) and lead projects, and their institutions may host principal investigators (European Commission, 2016a). Specific terms and conditions regarding the participation of Associated Countries in Horizon 2020 require them to make a financial

contribution, based on their GDP and determined by international agreements between the European Union and the country concerned (European Commission, 2016c). Fifteen countries held this status as of 29 April 2016. However, even though they pay into the Framework Programmes, Associated Countries have no formal role in deciding (i.e. voting on) the content or direction, although they may attempt to influence the shape and substance of programmes during the consultative phase. Associated Country status would not, therefore, afford the UK all the advantages of an EU Member State (House of Lords, 2016, pp. 64–6), but it would give UK research the best chance of retaining funding and leadership opportunities outside the EU.

Non-associated countries must negotiate separate bi-lateral agreements with the EU, and are 'not automatically eligible for funding' (European Union, 2013). Instead, they 'have themselves to determine the sources of funding and find the resources for their part of the action' within which they wish to participate. Nationals of this category may, for example, apply to be principal investigators for European Research Council projects, but only if they are 'engaged and hosted by a Host Institution based in an EU Member State or an Associated Country for the whole duration of the grant' (European Commission, 2016c).

As non-EU Member States, differences in their models of engagement with the EU have had consequences for the participation of Norway and Switzerland in the European Research Area, and in other areas of engagement with the EU (HM Government, 2016). Norway participates as a fully Associated Country in Horizon 2020, due to its membership of the European Economic Area (EEA), which brings it within the Single European Market and means that it accepts freedom of movement, and EU laws and directives. By contrast, Switzerland is a member of the broader European Free Trade Association, and only accepts changes to EU laws in batches. Switzerland's non-membership of the EEA and changed political stance on freedom of movement, following its referendum in February 2014, resulted in the European Commission determination that it could be only partially associated with Horizon 2020, and would be reduced to Third Country status for the duration of Horizon 2020 if it did not accept full freedom of movement by the end of 2016. In addition, misunderstanding of the Swiss position among EU Member States has been found to affect the likelihood of their researchers being invited to participate in EU networks and projects during the transitional phase, a situation which according to anecdotal evidence was already arising in the UK in the weeks after the Referendum.

Given the relatively important benefits that social scientists obtained from UK membership of the European Union, its losses from Brexit are also likely to be greater, the more so in a climate where the reduction in direct research funding from UK government and research councils appears to be irreversible. It is therefore in the interests of UK social scientists to seek to maintain and strengthen the partnerships established with researchers elsewhere in Europe during the Brexit negotiation phase, while redoubling their efforts to find opportunities to build partnerships with researchers in other disciplines not only in the UK, where such collaboration would enable them to make an important contribution to project development from a social science perspective and broaden access to alternative funding sources, but also in the wider world. Drawing on the experience gained within the European Research Area, they will have opportunities to demonstrate their resilience and adaptability by playing to their strengths in bridging international and disciplinary boundaries and acting as knowledge brokers.

Acknowledgments

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Annex 1: UK SSH ERC Awards

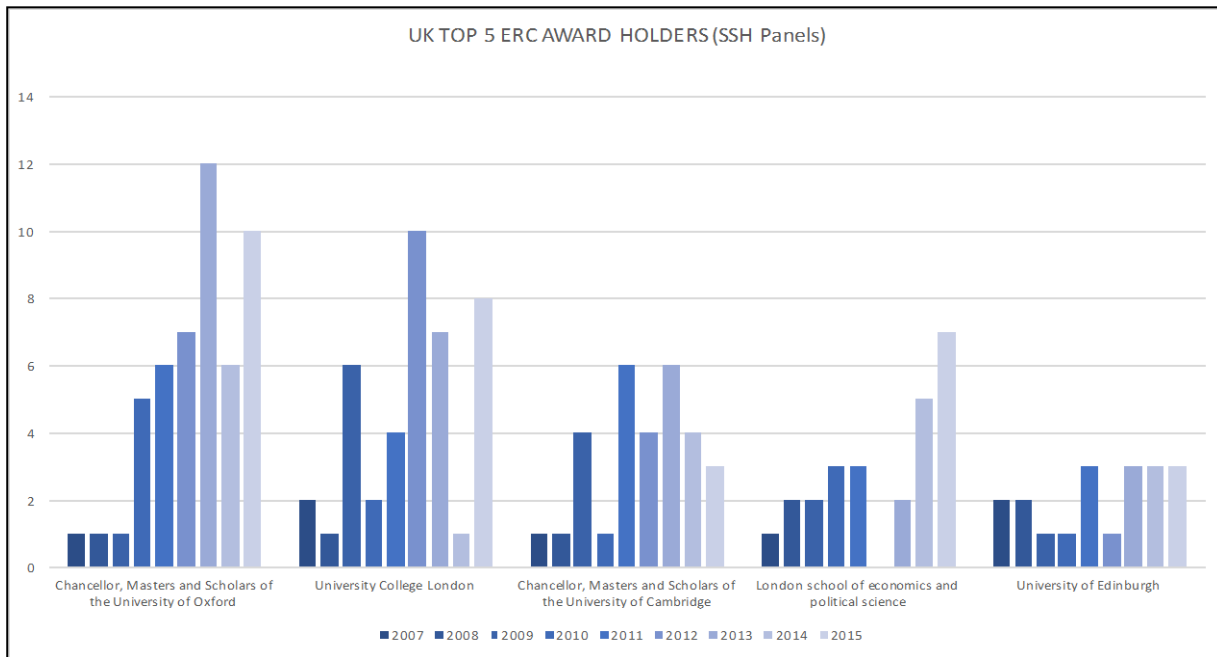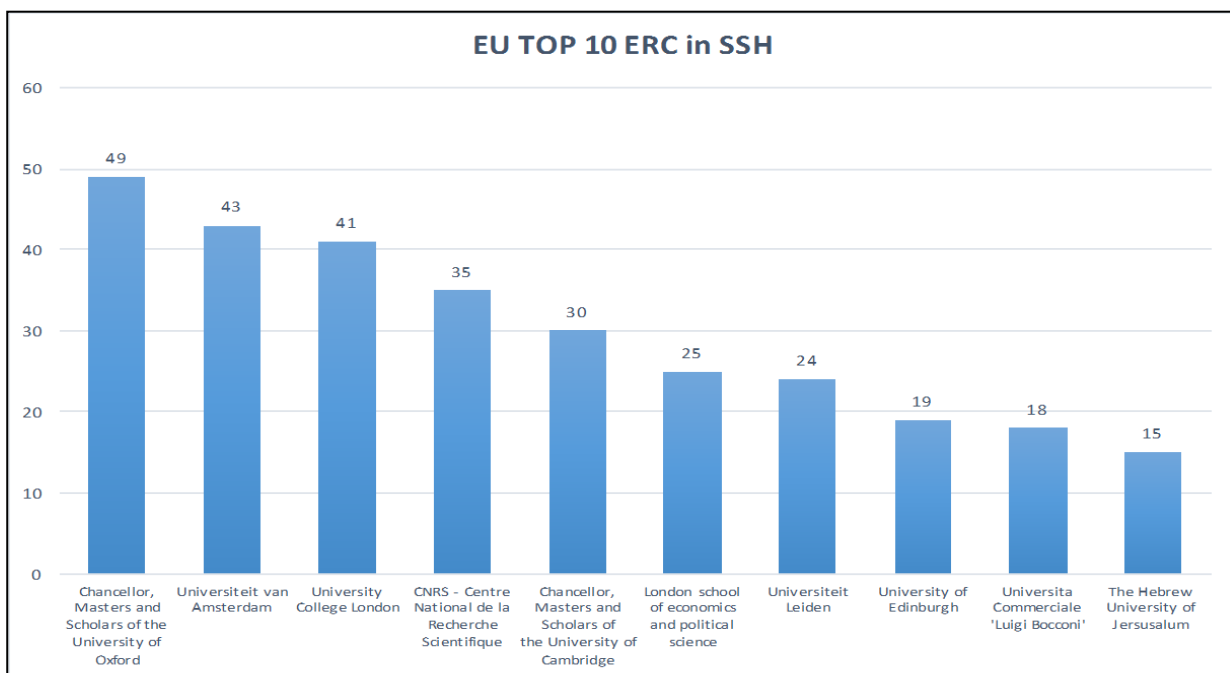### Chart 1.1 European Research Council awards to UK HEIs in SSH, 2007–2015

Chart 1.1 shows the UK's top 5 recipients of ERC awards in the social science panels (SH1-6) since 2007. While these institutions had a slow start, growth has since been steady.

Chart 1.2 EU top 10 ERC awards in SSH since 2007–2015

Figures for the number of ERC awards since 2007 show that 5 of the top 10 institutions are from the UK (Oxford, UCL, Cambridge, LSE and Edinburgh).

Annex 2: LSE Case Study

Chart 2.1 LSE ERC awards by year, 2007–2015
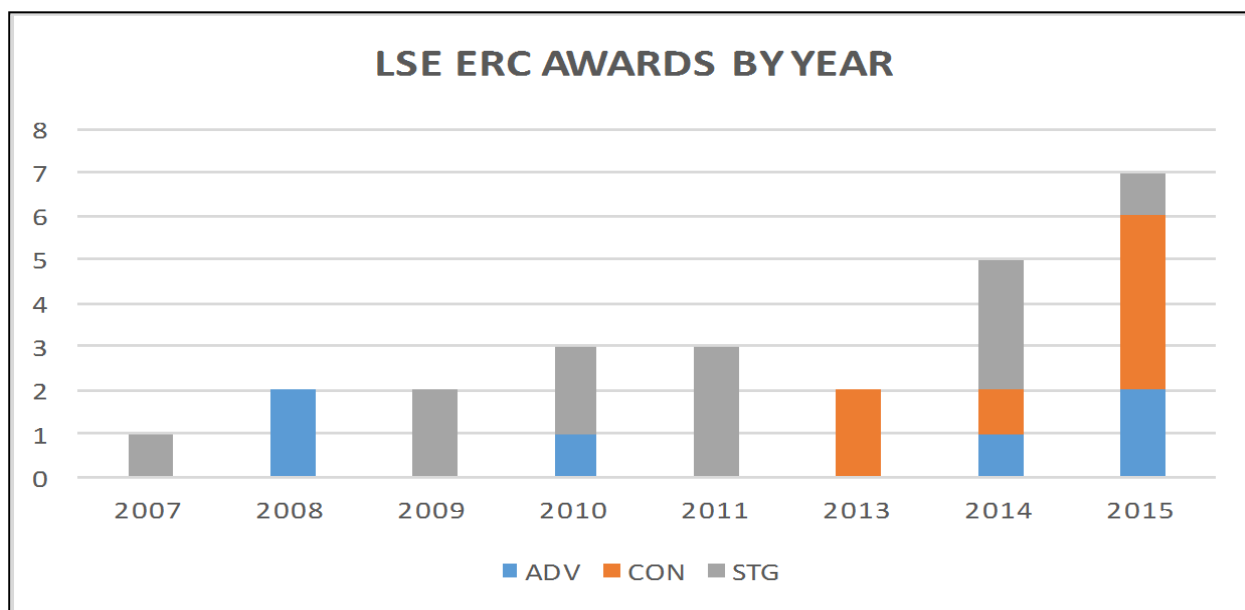
Chart 2.1 shows LSE's engagement with the ERC since its creation in 2007, and the steady increase in the number of ERC Advanced, Consolidator and Starting Grants awarded since 2007. The growth has been strongest since the start of Horizon 2020.

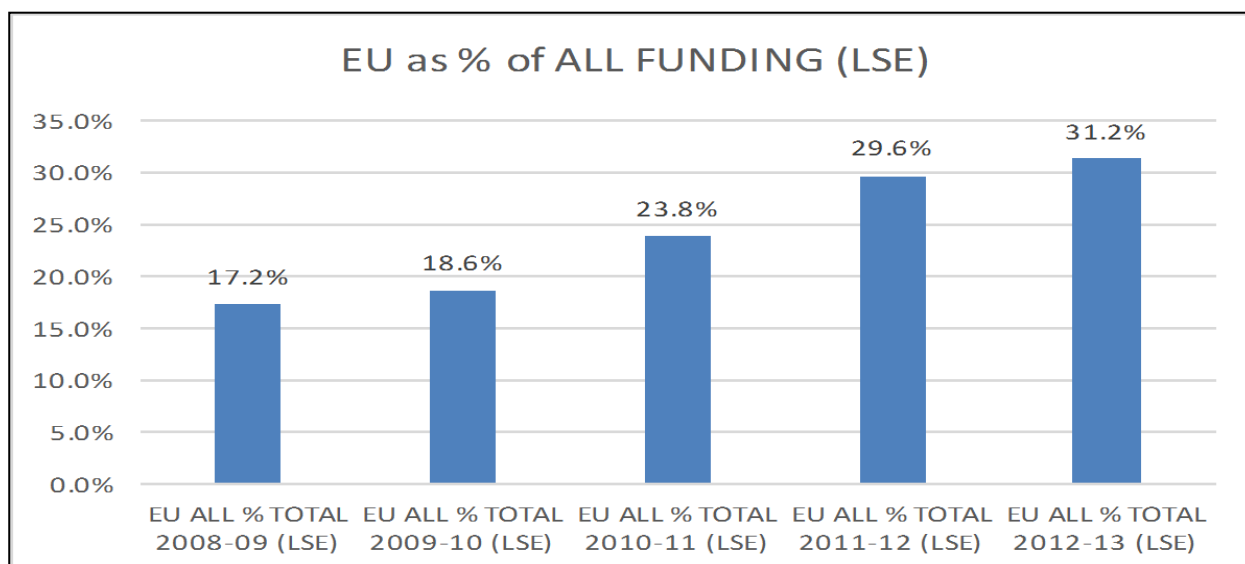**Chart 2.2 EU funds as % of all funding (LSE), 2008–2013**

Chart 2.2 shows the proportion of research funding (excluding QR) that the LSE receives from the EU. Most funding comes from the Framework Programmes (FP7 and Horizon 2020), but the figures also include funding from EU charities and EU corporates. The chart confirms an increasing reliance on the EU for funding of research at LSE. The 'curve' is reflected in the reliance on EU funding for SSH researchers across the UK.

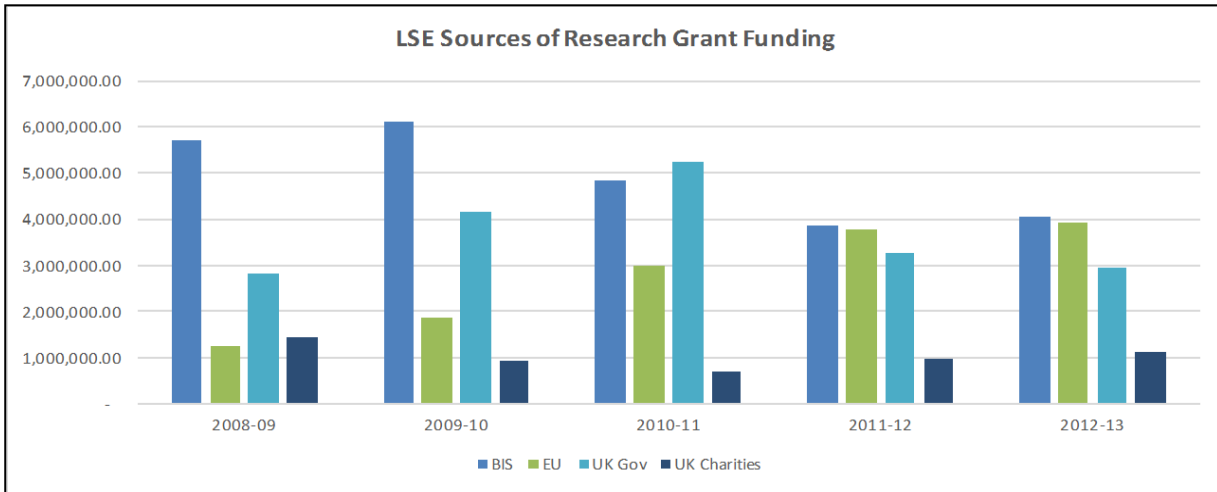**Chart 2.3 LSE sources of research grant funding in GBP**

Chart 2.3 breaks down LSE's funding (GBP) by main source: UK research councils, EU, UK Government and UK Charities. The Chart again shows how EU funding has risen steadily since 2008, whereas UK research council funding has reduced. The last two years in the Chart have also seen a decrease in UK government funding. These figures are somewhat influenced by changes in a small number of large-scale programmes.

Chart 2.4.1 LSE research-only staff, 2014/15, 2009/10 and 2004/05
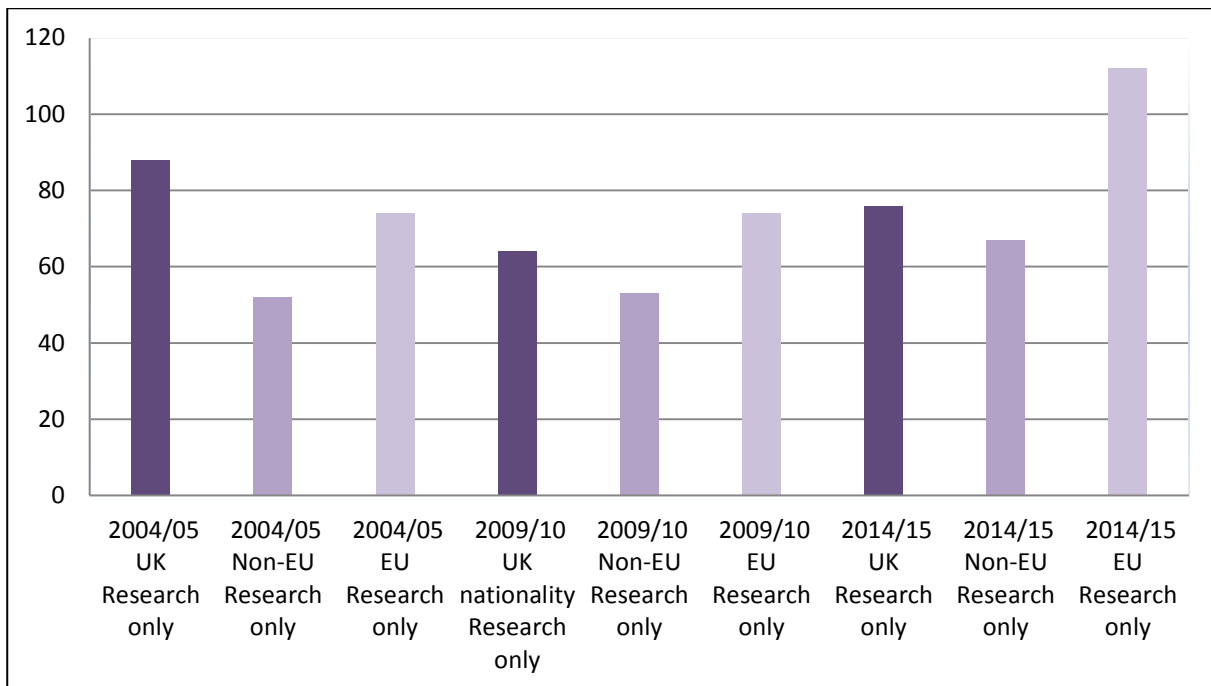
Research-only staff are predominantly researchers (doctoral and post-doc) without full 'faculty' appointments. The Chart shows that, in 2004/05, the largest 'nationality group' were UK staff but by 2014/15 the larger nationality group is for staff from the EU.

Chart 2.4.2 LSE research and teaching staff, 2014/15, 2009/10 and 2004/05
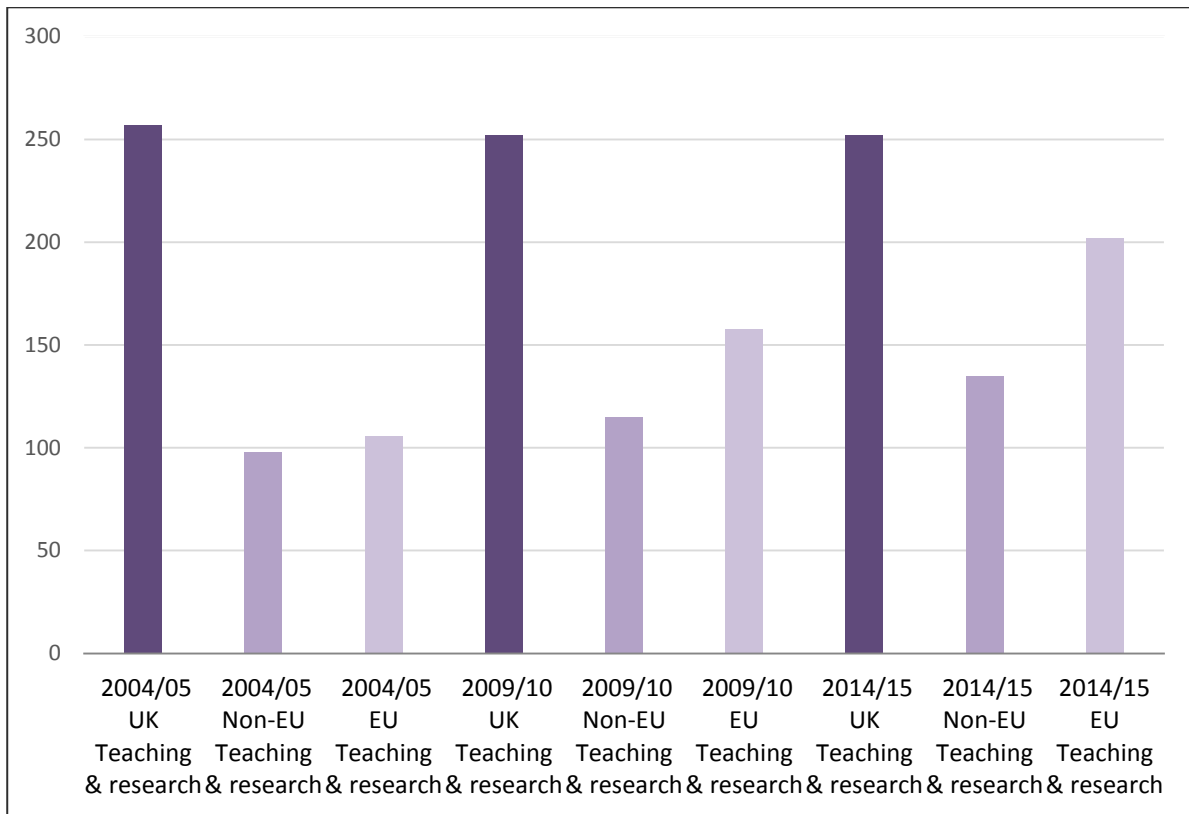
Research and Teaching staff are those on full faculty appointments. The largest nationality group in this category is UK. However, Chart 2.4.2 shows the stable position of numbers of UK staff employed versus the growth in EU staff. It also shows a strong growth in the number of Non-EU nationals, but at a slower rate than for EU nationals.

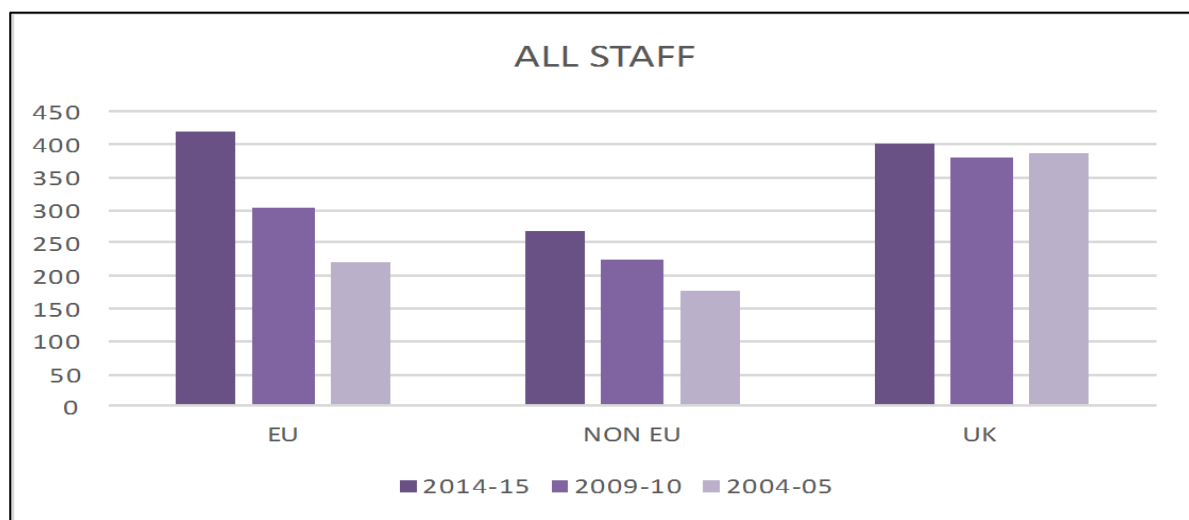**Chart 2.4.3 LSE all staff, 2014/15, 2009/10 and 2004/05**

Chart 2.4.3, which plots all staff in each of the three nationality groups across the three years, clearly demonstrates EU staff growth.

Annex 3: Participant Portal H2020 Online Manual

List of SSH disciplines

Social sciences, education, business and law
Social and behavioural sciences: economics, economic history, political science, sociology, demography, anthropology (except physical anthropology), ethnology, futurology, psychology, geography (except physical geography), peace and conflict studies, human rights.
Education science: curriculum development in non-vocational and vocational subjects, educational policy and assessment, educational research.
Journalism and information: journalism, library and museum sciences, documentation techniques, archival sciences.
Business and administration: retailing, marketing, sales, public relations, real estate, finance, banking, insurance, investment analysis, accounting, auditing, management, public and institutional administration.
Law: law, jurisprudence, history of law.

Humanities and the arts
Humanities: religion and theology, foreign languages and cultures, living or dead languages and their literature, area studies, native languages, current or vernacular language and its literature, interpretation and translation, linguistics, comparative literature, history, archaeology, philosophy, ethics.
Arts: fine arts, performing arts, graphic and audio-visual arts, design, crafts.
The list is adapted from the UNESCO International Standard Classification of Education (ISCED 2011).

Source: http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ssh_en.htm