

Working Papers on University Reform

Working Paper 28

Higher Education and Brexit: Current European Perspectives

Edited by **Aline Courtois**, with a foreword by
Simon Marginson, Marijk van der Wende and
Susan Wright

Authors: Ismail Acar - Aline Courtois - Andrew Gibson - Ellen Hazelkorn - Aniko Horvath - Jens Jungblut - Emőke Kilin - Peter Maassen - Miriam Madsen - António Magalhães - Simon Marginson - Kata Orosz - Jurgen Rienks - Maria José Sá - Norbert Sabic - Marie Sautier - Tim Seidenschnur - Krystian Szadkowski - Marijk van der Wende - Amélia Veiga - Susan Wright



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3. Foreword. Simon Marginson, Marijk van der Wende, Susan Wright

Simon Marginson, ESRC/HEFCE Centre for Global Higher Education, UCL Institute of Education, University College London

Marijk van der Wende, University of Utrecht

Susan Wright, Centre for Higher Education Futures, Danish School of Education, Aarhus University

This volume had its genesis in the 23 June 2016 decision of those voting in the UK referendum, by a majority of 51.9 per cent to 48.1 per cent, to sever the political and legal connection between the UK and the European Union. This was the beginning of a process of negotiation, which, 20 months later, still has a long way to run and remains unclear. The terms of the severance are still in doubt, the consequences are still being debated and in early 2018 there is a faint possibility, perhaps a little greater than it appeared in 2016, that ‘Brexit’ will be reversed – though a negotiated exit with partial continued UK engagement looks more likely.

The referendum decision caused, and continues to cause, much concern in UK universities, whose personnel tend to be strongly opposed to Brexit. UK universities have a high level of engagement in Europe through their recruitment of non-UK EU citizens as students and staff. There are also benefits from the contribution of European funding, partners and personnel to research carried out in the UK. In some academic disciplines in the UK, up to a third of all research funding is from European programmes. In some universities half of their recent merit-based academic appointments have been non-UK EU citizens. Many UK universities, especially in poorer parts of the country, draw on support from the European Regional Development Fund and European Investment Bank. Among UK citizens in higher education, in contrast with UK society and politics, a significant minority of people identify strongly as European and many see themselves in terms of dual UK/Europe identity. Likewise, there are instances of dual identity among many non-UK citizens from EU countries in higher education, especially those who have been resident in the UK for long periods.

In December 2016, Aline Courtois, Aniko Horvath and Simon Marginson at the ESRC/HEFCE Centre for Global Higher Education (CGHE) prepared an application to the UCL Institute of Education for £15,000 in funding to support research on the consequences and responses to Brexit. The three CGHE researchers saw the UK as having a continuing presence in Europe, rather than standing on its own as it is often viewed in UK politics (even among many who support membership of the EU). They also saw the question of the future of European higher education, including the UK, as more important in itself than the question of just the future of UK higher education. Accordingly, and in contrast with other work being done on Brexit and higher education, the research bid conceived the zone of research inquiry as Europe (including UK), rather than the UK alone.

In the funding bid, the CGHE researchers sought support to conduct semi-structured interviews on the effects of and responses to Brexit in UK universities and in one country in continental Europe, and for meetings of personnel from European centres and institutes in the field of research on higher education, to discuss the effects of Brexit and organise ongoing cooperation on a Europe-wide basis. The funding bid was successful and research took place in two contrasting UK universities, as explained in chapter 14. At the same time, parallel research was also conducted in universities and policy circles in the Netherlands, led by Marijk van der Wende from the University of Utrecht and funded from the original UCL Institute of Education grant. The two studies asked complementary research questions.

On 5 June 2017, 16 researchers of higher education from 11 countries met in London, discussed Brexit and heard reports from the two nation-based case studies. The discussion, especially the Netherlands and UK research, generated significant enthusiasm among the participants and questions about the future of the European Research and Higher Education Areas from the perspectives of different countries. Other country researchers decided to conduct their own matching studies, on a self-funded basis, and it was also decided to work towards a larger-scale funding bid. At a second meeting of higher education researchers at the University of Utrecht on 10 July 2017 there were 20 persons from 10 countries in attendance, with apologies from two more countries. The meeting heard presentations on European citizenship and further progressed the case studies in individual countries. At a third meeting of the group hosted by Aarhus University in Copenhagen on 13 December, which participants self-funded to attend, there were 18 participants from nine countries. The participants discussed the outcomes of the country-based studies, in the form of the first draft of the present volume, drawn together by Aline Courtois from CGHE. The Copenhagen meeting also continued a discussion begun in Utrecht about the potential for establishing a Europe-wide network to facilitate continuing collaboration and considered ideas for further research

on the shifting landscape of European research and higher education in a changing global context. A smaller meeting in London on 31 January 2018 put the finishing touches to the present volume, and discussed further papers from the work.

The research included here captures something of the sensibilities of higher education in each country during the period of the research, April to November 2017, and also says something about European universities. This collection of national studies is not seen as representative of the whole of responses to Brexit, in European higher education. However, it does contain significant variation in national contexts, including Nordic, Low Country, Anglo-Irish and central, southern and eastern European higher education systems. The combined research was conducted in a period that was relatively early in relation to the political, economic and cultural changes associated with Brexit and with the wave of populism (often with an anti-university tinge) that has swept across Europe and the English-speaking world. The research tells us something new about higher education practitioners under conditions of uncertainty and ambiguity. At a time when the rules are unclear and the future impossible to forecast, assumptions and values rise to the surface.

The research in these chapters, and our combined discussions, with both established and emerging researchers contributing extensively, have been exciting. Our cooperation has been both normatively inspiring and fruitful in the practical sense, as is often the case in Europe-wide projects. The commitment to cooperation is deeply felt. We are confident that in higher education in general, and in the field of research on higher education in particular, collaboration will not be derailed by Brexit. We look forward to further productive work from the researchers who have been gathered together in this project and speak within this volume.

Simon Marginson

Marijk van der Wende

Susan Wright

4. General Introduction. Aline Courtois

Aline Courtois, Centre for Global Higher Education, University College London¹

4.1. Presentation of the study

4.1.1. Context

In a UK referendum held on 23 June 2016, 51.9 per cent of those who voted² were in favour of leaving the European Union ('Brexit'). The two-year countdown to formally leaving the EU was officially triggered by Prime Minister Theresa May on 29 May 2017.

The referendum results sent shockwaves through the UK higher education sector. It was widely commented on outside the UK as well, with expressions of dismay – but also of opportunism – coming from various countries, alongside offers to reinforce collaborations, host branches of UK universities, and so forth.

At the time of writing, the exact impact of Brexit on the higher education sector, in the UK and beyond, is still largely unknown. Potentially adverse consequences include the UK losing access to EU research funding, mobility programmes and collaborations; and loss of EU staff and students; with serious implications for the financial viability and reputation of the UK's higher education institutions. At the same time, Brexit may significantly alter the European higher education landscape, impacting the relations that the UK has built with other EU countries and depriving the European Research Area and the European Higher Education Area of one of its strongest members.

The research project 'Brexit and higher education in the UK and Europe: Towards a cross-country investigation' was initiated by the Centre for Global Higher Education (CGHE) at the UCL Institute of Education.³ The primary aim of the project was to collect preliminary data relating to the potential impact of Brexit on UK universities and their relationships to European higher education, with particular attention to staffing issues. As a pilot project, it also aimed to identify salient issues for further research and to test theoretical frameworks

¹ Susan Wright, Jens Jungblut, Amélia Veiga and Marijk van der Wende provided useful suggestions and comments on previous versions of this draft.

² Voter turnout was 72.2% of those on the electoral roll.

³ The research project was designed by Simon Marginson, Aline Courtois and Aniko Horvath with the help of Carolyn Gallop. Funding from the IOE Seed Funding Scheme 2016-17 is gratefully acknowledged.

and methodological approaches to monitor and understand the effects of Brexit in the UK and Europe, in order to inform a larger bid.

The initial research questions were as follows:

- What are the institutional strategies, plans and emerging responses in relation to Brexit, in UK universities and elsewhere in Europe?
- What are the discernible system-level and cross-national initiatives in relation to Brexit?
- How may the impact of Brexit articulate with concurrent changes at national and regional levels?
- What are the potential implications of Brexit in relation to mobility, retention and recruitment of current and possible EU staff?
- What are the implications for Early Career Researchers (ECR) and other staff on insecure contracts, in the UK and elsewhere?

In February 2017, Marijk van der Wende from Utrecht University agreed to conduct a similar pilot research project in the Netherlands. CGHE issued a call to other European research centres on higher education and the participating teams met in London on 5 June 2017. The research centres agreed to conduct pilot research projects on a self-funded basis, and relevant to their national contexts. Further to this initial meeting, the pilot research project designed by CGHE was adapted and conducted with some variation in the following nine countries from April to December 2017:

- Denmark: Centre for Higher Education Futures (CHEF), Aarhus University (Susan Wright, Miriam Madsen, Jakob Williams Ørberg)
- Germany: International Centre for Higher Education Research (INCHER), Kassel University (Jens Jungblut, Tim Seidenschnur)
- Hungary: Central European University (CEU), Budapest (Kata Orosz, Norbert Sabic) and Emőke Kilin (independent researcher)
- Ireland: Higher Education Policy Research Unit (HEPRU), Dublin Institute of Technology (Ellen Hazelkorn, Andrew Gibson)
- The Netherlands: Utrecht University (Marijk van der Wende); VSNU (Jurgen Rienks)
- Norway: Department of Education, University of Oslo (Peter Maassen)
- Poland: Center for Public Policy Studies, University of Poznan (Krystian Szadkowski; Marek Kwiek)
- Portugal: Centre for Research on Higher Education Policies (CIPES), University of Porto (Amélia Veiga, António Magalhães, Maria Jose Sa)

- Switzerland: Institute of Social Sciences, University of Lausanne (Marie Sautier)

A similar project will also be conducted in Finland (Jussi Välimaa and Leasa Weimer, Finnish Institute for Educational Research (FIER), University of Jyväskylä) in February/March 2018 and will be published at a later stage.

4.1.2. The research

The UK-based project included documentary research and interviews with higher education staff (senior management, senior academics and early career researchers / staff on insecure contracts) at two case study universities. The topic guide template is listed as Appendix 1. It includes two sets of indicative questions: (A) for university leaders and permanent academic staff; and (B) for staff on insecure contracts.

The UK pilot research project did not include interviews with central policy makers because in parallel, one of the authors (Aniko Horvath) was working on a large research project on governance in UK higher education and had interviewed a number of policy makers as part of this larger project. The topic of Brexit was discussed in these interviews. Therefore, the UK pilot project focused on conducting interviews in the two chosen case study universities.

Participants in the partner European research centres were encouraged to explore areas relevant to their own countries and to adapt the topic guide to this effect (for instance, for interviews with central policy makers where this was necessary). An indicative report template was distributed in order to facilitate the collation of data across the case studies (see Appendix 2).

Most country case studies were based on two different institutions, and a vertical slice of interviews from central government to university leadership and academics on secure and insecure contracts. However, in the spirit of an exploratory research project, the teams adopted slightly different methods. Thus, for instance, the Dutch study favoured a cross-institutional approach rather than a case-study approach; while the German study focused on three higher education institutions. The Swiss study respondents were recruited across four institutions. The Hungarian team encountered access issues and their interviews were complemented by a survey that was completed at 15 higher education institutions.

In several countries, and for various reasons, academics on insecure contracts were not included. 11 Early Career Researchers (ECR)/staff on insecure contracts were interviewed as part of both the Swiss and the UK study.

A total of 127 interviews were conducted across the 10 case study countries. It is worth noting that the research took place in a context of uncertainty and emerging strategies.

Research participants expressed views and perceptions that were at times speculative and may or may not reflect their future course of action; but reflected their best assessment and anticipation of the situation on the day of the interview.

The methods and early results were discussed at a meeting at Utrecht on 10 July 2017 and the draft working paper was discussed fully at a meeting at Copenhagen in December 2017.

4.2. Case-study countries and UK cooperation: Background statistics

The EU consists of countries of different sizes, with different higher education systems and levels of research capacity. The strongest players (in terms of share of competitive funding and volume of research outputs) tend to be the larger countries, namely Germany, the UK, France, Spain and Italy. However, some smaller countries (e.g. Netherlands, Denmark) receive a relatively large share of the total EU funding. Because there are significance differences in terms of performance and other reasons, not all countries are equal partners in the European Higher Education Area (EHEA)/European Research Area (ERA) landscape.

This section presents data collected from various sources that help contextualise the findings of the research.

The following table presents data relating to Horizon 2020 funding for each of the eight EU case-study countries, including the position of the UK in collaborations with each country.

Table 4-1. Horizon 2020 and the case-study countries over the period 2014-16⁴

	Rank in budget share	Rank in number of participants signed contracts	Amount received (M)	Success rate (%)	% of EU-28 population
Denmark	10	11	656.41	14.5	1.1
Germany	1	1	4,390.83	16	15.9
Hungary	17	17	168.01	10.9	2
Ireland	13	14	463.38	14.7	0.9
Netherlands	6	6	2,036.41	16.3	3.3

⁴ Data collected from Europa, http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=country-profiles

Poland	15	15	241.65	12.1	7.6
Portugal	12	14	427.76	12.6	2.1
UK	2	2	3,974.48	14.6	12.6

	Total number of participants	Number of ERC PIs	Number of MCSA fellows	Rank of UK in collaborative links	Number of collaborative links with UK
Denmark	1,505	77	383	2	1,824
Germany	8,074	587	1,249	1	10,277
Hungary	589	25	56	2	692
Ireland	1,068	46	220	2	1,373
Netherlands	4,054	331	744	2	5,142
Poland	1,030	9	136	3	1,184
Portugal	1,373	43	216	3	1,802
UK	8,056	754	2,246	N/A	N/A

Germany has the highest number of participants but the UK has more European Research Council (ERC) Principal Investigators (PIs) (and nearly twice as many Marie Skłodowska-Curie Actions (MCSA) fellows). This indicates that UK researchers are more likely to be lead applicants.

Other significant players / potential challengers for the UK's position include mainly other large countries:

- France, in third position for budget share (fifth for the number of participants signed contracts), with 5,770 participants receiving €2,774.99 million, a 17 per cent success rate, 427 ERC PIs and 1,004 MCSA fellows. France has 13 per cent of the EU-28 population; its top collaborator is Germany followed by the UK, Spain, Italy and the Netherlands.
- Spain, in fourth position for budget share (third for the number of participants signed contracts), with 6,595 participants receiving €2,394.90 million, a 13.8 per cent success rate, 235 ERC PIs and 978 MCSA fellows. Spain has 9.2 per cent of the EU-

28 population; its top collaborator is Germany followed by Italy, UK, France and the Netherlands.

- Italy, in fifth position for budget share (fourth for number of participants signed contracts), with 6,033 participants receiving €2,177.16 million, an 11.9 per cent success rate, 222 ERC PIs and 813 MCSA fellows. Italy has 11.8 per cent of the EU-28 population; its top collaborator is Germany followed by France, UK, Spain and the Netherlands.
- The Netherlands is in sixth position, see above – note there is a significant drop from the fifth to the sixth position in terms of share of Horizon 2020 (H2020) budget as well as EU population share.
- Belgium, in seventh position for budget share (seventh for number of participants signed contracts), with 2,084 participants receiving €1,284.27 million, a 17.2 per cent success rate, 126 ERC PIs and 379 MCSA fellows. Belgium has 2.2 per cent of the EU-28 population; its top collaborator is Germany followed by UK, Spain, France and Italy.

Under Horizon 2020, the UK, Germany, Spain and Italy are among the top five collaborators (number of collaborative links) for all other EU-28 countries (next, France is among the top five for 24 other countries and the Netherlands for seven).

The UK is the top collaborator for one country (Germany); the second collaborator for nine countries (Belgium, Denmark, France, Hungary, Ireland, Luxembourg, Netherlands, Poland, Switzerland). By contrast, Germany is the top collaborator for 19 countries and the second for seven countries.

The next two tables focus on the mobility of students (Table 4.2) and HE staff (Table 4.3) under Erasmus+.

Table 4-2. Higher Education Erasmus mobility for studies and placements between the case-study countries, 2015⁵

	DK	DE	HU	IE	NL	PL	PT	UK	Total out-going*	Rank of UK as a destination
Denmark		564	66	75	363	54	123	796	4215	1
Germany	961		770	1,407	1,574	1,086	977	5,145	40,089	3
Hungary	53	844		77	231	155	187	279	4135	5
Ireland	46	492	27		237	27	19	404	3172	4
Netherlands	502	1551	260	344		181	364	2,154	13,083	1
Poland	212	2447	267	122	489		1,579	821	16,518	6
Portugal	104	493	267	68	389	1,084		386	8,647	8
UK	391	2251	94	304	986	103	219		15,645	N/A
Total incoming*	5,568	33,44	6	5,707	7,614	1	6	2	5	0
Rank as a destination for the UK	8	3	18	11	6	17	13	N/A	N/A	

Example: In 2015, 796 Danish students went to the UK out of a total of 4,215 outgoing Danish students, making the UK the top destination for Denmark. In the same year, 391 British students went to Denmark out of a total of 15,645 outgoing UK students, making Denmark the 8th destination for UK students.

* The total incoming and outgoing figures include all participating countries.

In 2015, the UK and Ireland both received approximately twice as many students as they sent out. Interestingly, the UK is only the eighth destination for Portuguese students, the sixth for Polish students and the fifth for Hungarian students.

A high proportion of outgoing UK students go on industry placements rather than student exchange (39 per cent in 2015-16).⁶ This is higher than the EU average (22 per cent in 2013-

⁵ This table includes both study abroad of 1-2 semesters, short stays and training. Data collected from Europa, Erasmus+ report 2016, https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus2/files/annual-report-2016-stat-annex_en.pdf

⁶ Erasmus+, 2014-16 Higher Education Mobility Statistics tables downloaded from <https://www.erasmusplus.org.uk/statistics-0>

14). In 2013-14 the UK was the top receiving country for work placements but the fourth only for mobility for studies, after France, Spain and Germany. Therefore, given that the figures above include both work placements and studies, they do not reflect the extent of unbalanced relationships between UK HEIs and HEIs in partner countries.

Table 4-3. Erasmus Higher Education staff mobility between the case-study countries, 2015

	DK	DE	HU	IE	NL	PL	PT	UK	Total outgoing	Rank of UK as a destination
Denmark		79	5	5	49	4	8	88	649	1
Germany	72		144	80	189	400	133	637	5028	2
Hungary	66	184		14	49	109	95	71	1928	10
Ireland	9	28	2		17	13	4	43	276	1
Netherlands	61	124	29	28		27	40	185	1309	1
Poland	27	659	196	48	64		563	271	7981	9
Portugal	22	70	34	23	28	118		70	1706	7
UK	102	311	37	21	203	82	71		2659	N/A
Total incoming	767	4528	1791	724	1571	3462	3291	3991	58047	
Rank as a destination for the UK	9	2	18	26	4	11	13	N/A	N/A	

Table 4-4. Rank of case-study countries in the EU-28 for publication count, citations and international co-authorships⁷

	Publication count 2014	Publications per million inhabitants 2014*	Average citation rate 2008-12*	Share of papers with foreign co-authors 2008-14*
Denmark	10	1	1	6
Germany	1	13	11	19
Hungary	18	22	19	13
Ireland	17	9	5	9
Netherlands	6	4	2	10

⁷ Source: data collected from Unesco, <http://unesdoc.unesco.org/images/0023/002354/235406e.pdf>

Poland	7	21	28	28
Portugal	12	12	16	16
UK	2	10	4	14

*Shaded: Above EU average

Table 4-5. Top 5 collaborators of the case-study countries for 'foreign papers', 2008-14

	1st	2nd	3rd	4th	5th
Denmark	USA	UK	Germany	Sweden	France
Germany	USA	UK	France	Switzerland	Italy
Hungary	USA	Germany	UK	France	Italy
Ireland	UK	USA	Germany	France	Italy
Netherlands	USA	Germany	UK	France	Italy
Poland	USA	Germany	UK	France	Italy
Portugal	Spain	USA	UK	France	Germany
UK	USA	Germany	France	Italy	Netherlands

The figures show that the UK is an extremely important player in the ERA and EHEA but that it is not as central as Germany. It does, however, occupy a strong position in the sense that its relationships with other partners tend to be unbalanced. This is particularly visible in the case of Erasmus mobility.

4.3. Findings

4.3.1. Commonalities: Uncertainty and fears about the future of European research

A number of themes emerged that were common to all the countries under study. Uncertainty and concerns for the future of European research – and for the European project at large – were expressed across all case studies.

As interviewees in various countries considered the impact of Brexit on their higher education systems and research activities, the dominant theme was uncertainty. At the time the data was collected – and at the time of writing (February 2018) – little is known about the future position of the UK in relation to EU research funding or about

the conditions for student and staff mobility within post-Brexit Europe.⁸ This situation makes it difficult for policy makers and institutional leaders to plan effectively for the future. It also creates uncertainty for non-UK staff in the UK, and UK staff working outside the UK. Consequently, in many cases, strategies were tentative or hesitant. At national level, Ireland and Denmark had Brexit task forces or working groups set up, although, particularly in Ireland, higher education was not the strongest focus given the potential implications for other economic sectors. At institutional level, there were indications that, generally, UK partners were less sought as leaders on collaborative bids; and exchange partnerships with other countries were under consideration – but in most cases no firm or definite course of action was taken. No clear signs of mobilisation on the part of academic communities (except in the UK) were observed; but attempts at reinforcing existing informal/non-funded partnerships were occasionally reported.

Concerns for the quality and reputation of European research were expressed. Up until now, the UK has been sought as a research partner due to the prestige of UK higher education institutions and the presence of high-profile researchers in the UK. As such, the UK has played a role in enhancing European research, with benefits to all members. For these reasons, the exclusion of the UK was often perceived as a risk for the European Research Area. The Netherlands and Denmark, as strong supporters of competitive funding, feared they would lose a precious partner – and an ally in their push for competitive models of funding – in negotiations at EU level.

It was also feared that Brexit, together with manifestations of anti-EU feelings and re-nationalisation in various other EU countries, was detrimental to the image of Europe and posed a threat to the European project at large. In particular in countries where nationalist, anti-EU movements had gained ground (e.g. Denmark, Netherlands), this led interviewees to consider whether the UK securing a ‘good deal’ would be beneficial or instead encourage other countries to leave, with the risk of dismantling the EU. In this sense, broader political considerations and concerns for the European project became intertwined with practical, sector-specific hopes and concerns.

⁸ The UK government has produced a paper on research post Brexit but it does little to clarify what the post-Brexit situation will be for UK HEIs.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/642542/Science_and_innovation_paper.pdf

4.3.2. Regional clusters and unequal partnerships

The findings confirmed that the European Research Area and the European Higher Education Area are characterised by unequal power relationships. While Germany emerges as the strongest player, and while, despite their smaller sizes, Scandinavian countries are well placed in the competition for funding, incoming students and influence at EU level, case study countries in Central/Eastern Europe and Southern Europe do not see themselves as strong players or influencers. The sections on Hungary, Poland and Portugal are particularly telling in this respect.

Exchange partnerships are generally unbalanced; and collaborative research projects are often led by one of the key players (Germany, UK, France, Spain, Italy). In addition, it is felt that existing 'horizontal' collaborations with the UK are sometimes exploitative in nature. The various contributions, and in particular the section on Poland, reveal the unequal nature of collaborative research partnerships; while the section on Hungary makes explicit the difficulties posed by the market/profit orientation of UK partners in terms of establishing meaningful and mutually beneficial partnerships. This compounds a situation where the UK has for a long time benefitted from labour migration from countries such as Poland and Portugal.

Another dimension that produces inequality between higher education systems is the different contexts, funding conditions and orientations at national level – with complaints about underfunding expressed in particular by Irish, Polish and Portuguese interviewees. These conditions, as well as the divide between market vs. public orientations that is discernible in the account from Hungary, further complicate the ERA landscape, raising questions in relation to the nature of European integration and cross-European cooperation in higher education. Discussions around Brexit helped bring these issues to the fore. These differences and unequal relationships also affect the ability of certain countries to strategise around Brexit.

4.3.3. Cooperation and/or competition?

Significant tensions emerged in relation to the ideas of cooperation and competition, bringing to light the different dynamics at play in higher education and in the internationalisation of higher education systems.

While international research collaboration takes different forms – some of which do not require centralised funding mechanisms – the EU has played a significant role in strengthening EU-wide research collaboration by funding collaborative research

projects, shared research facilities and academic and student exchange programmes. Further, the EU facilitates student and staff mobility within Europe. The UK is an important research partner for research teams across Europe; it is where several key research facilities are located; and it is a popular destination for students and staff from many EU countries. Its inclusion in the EU is valued as such by its EU research partners. Academics, in particular, emphasised the importance of their UK collaborators to their ongoing research activities. They feared that the exclusion of the UK would damage the quality and reputation of European research and have a detrimental impact on their own research work.

The loss of the UK as an academic exchange partner was also a source of concern for countries sending significant numbers of students to the UK.

On the other hand, EU countries compete with each other for international students and for EU research funding. For countries where higher education institutions offer tuition in English, the departure of the UK from the EU may provide an opportunity for increasing incoming numbers – it is assumed that the UK's membership of the EU is an attractive feature for non-EU students and that they may instead consider Ireland, Denmark or the Netherlands should the UK no longer be part of the EU. These countries may also benefit in terms of increased intra-European flows although these may not be as lucrative. As previous research suggests, the rationale for internationalisation in the UK has been distinctly market-oriented compared to the rest of the EU.⁹ Hopes were expressed in most countries that the share of EU funding going to the UK may be redistributed in a way that advantages them. However, in more 'peripheral' countries, the view was expressed that this may not be advantageous as the bigger countries are better positioned to benefit from a redistribution of research funds.

4.3.4. Staff mobility and academic labour markets

Participants in most case-study countries expressed the view that Brexit provided an opportunity to recruit high-profile academics currently based in the UK and were relatively candid about their hopes to 'poach' UK-based academics. Reservations

⁹ For example: Huisman, J. & M.C. van der Wende (eds.) (2005). *On Cooperation and Competition II. Institutional responses to internationalisation, Europeanisation and Globalisation*. ACA Papers on International Cooperation. Bonn: Lemmens. Marginson, S. & M.C. van der Wende (2009). *Europeanisation, International Rankings, and Faculty Mobility: Three Cases in Higher Education Globalisation*. In: *Higher Education to 2030, Volume 2: Globalisation*. Paris: OECD. Pp. 109-140.

were expressed, however, due to the congested nature of academic labour markets for entry-level positions – in particular in Ireland, where it was felt that inviting UK residents would not be well received by the many local applicants awaiting positions – even though applications from UK staff had already increased, leading to several recruitments.

In Portugal and in Poland, it was felt that existing infrastructures and salary structures would make them unattractive destinations and that they would be unable to benefit from a ‘Brexodus’.

For academics themselves, Brexit created significant anxiety. UK-based academics feared waves of restructurings and redundancies in the wake of Brexit and loss of funding – in particular in disciplines not deemed profitable, such as those in the humanities. Early-career academics felt particularly vulnerable as their employment as contract researchers largely depends on the availability of research grants. The prospect of a hard Brexit complicated ERCs’ perceptions of their future in the UK and in the sector in particular. This climate of fear did not only affect researchers based in the UK, as the Swiss report suggests: the fear of a net loss of early-career positions across the EU is widespread.

It can be noted as well that significant differences between attitudes at the different levels (national level, university leadership, academic staff) emerged from most case studies, with contrasted understandings of cooperation and research.

4.3.5. Degrees of exposure

A recent report argued that regions in central and Southern Europe were unlikely to be seriously affected by Brexit, while those in closer proximity to the UK (Ireland, Germany, the Netherlands and Belgium) were exposed to greater trade-related economic risk (Ortega-Argiles 2017).¹⁰ Our findings paint a slightly different picture: while they suggest that those countries studied in central and Southern Europe may indeed be relatively unaffected, due to their marginal position in UK-centred research networks, they show that among the UK’s close partners, some hope to benefit from the departure of the UK. The authors of the German report sum up this attitude with the phrase ‘quiet opportunism’ while the section on the Netherlands brings to light the European and global ambitions of Dutch higher education institutions.

¹⁰ <https://blog.bham.ac.uk/cityredi/the-continental-divide-economic-exposure-to-brexit-in-regions-and-countries-on-both-sides-of-the-channel/>

In addition, should Brexit significantly deprive them of opportunities, some of the 'stronger' countries are confident that they will be in an advantageous position to forge new global partnerships. This was particularly the case of the Netherlands – although Dutch participants also mentioned that due to the Anglo-Saxon orientation characteristic of their higher education system, Dutch research was vulnerable in other ways under the combined effect of Brexit and the election of Donald Trump in the US – the same concern was expressed in Norway, which is similarly oriented. By contrast, Hungary, Portugal and Poland envisaged strengthening their relationships with countries in closer proximity and/or with which they share a common language (e.g. Brazil for Portugal).

The account from Ireland is more cautious. Ireland may benefit in certain ways, but its research sector depends heavily on both formal and informal links to the UK and the prospect of a hard border on the island is a source of great concern. Above all, the current relatively low level of national funding for higher education may hinder Ireland's efforts to reposition itself in the European and global higher education landscape. In relation to funding and state support, similar concerns were expressed in Portugal and Poland, although without the sense of an imminent opportunity that will likely be missed.

Thus, concerns varied: for Germany, the prospect of Brexit is problematic in terms of student mobility; for both Portugal and Poland, the conditions for their high numbers of expatriates in the UK were preoccupying; while Ireland's strong connections with the UK in all areas (research partnerships, student mobility, staff mobility both within and outside EU exchange programmes, shared facilities) makes it vulnerable on multiple levels.

The UK report indicates that there are significant differences between the four UK nations, between Russell Group universities on the one hand, and smaller or less prestigious institutions on the other, as well as between disciplines: Brexit is expected to have a very unequal impact.

4.3.6. *The future of European research*

Several possible shifts are discernible from the various reports. In particular, Germany emerges as a significant potential 'winner', with countries in both Northern and Eastern Europe planning to reinforce their existing partnerships with German institutions. Although regional clusters are discernible, it seems that establishing

links with a key player such as Germany is more important than reinforcing a particular cluster consisting of smaller nations.

As already mentioned, in a context of uncertainty, few countries had implemented specific internationalisation strategies as a direct result of Brexit (and both the UK and Ireland have intensified their efforts to recruit international students in new and emerging markets). Brexit could be used to amplify existing efforts and strategies. These discussions made discernible global aspirations and a willingness to strengthen existing partnerships and collaborations with countries outside the EU. China, in particular, was mentioned repeatedly across several case studies (the UK, the Netherlands), with Germany frequently mentioned as well.

The future position of the UK in the ERA/EHEA is of course difficult to predict. Interviewees across the case-study countries expressed a willingness to continue collaborating but this willingness was generally significantly qualified, with Danish participants expecting to find a way to continue collaborating somehow, but fearing the excessive administrative burdens that such cooperation would entail. There was a reluctance, expressed across several case studies, to involve British partners in research bids, or at least a fear that the EU would lose the UK's valuable leadership of not only research projects but Joint Programming Initiatives and other collaborations. Competitive tendencies and cost/benefit calculations may therefore significantly impact the current position of UK higher education within existing formal European networks. The UK case study revealed very different perspectives, from relative assuredness (with the idea that the UK would have no difficulty in maintaining existing partnerships/attracting new collaborations due to its status) to extreme anxiety (that jobs, departments and institutions would disappear).

4.4. Summary of country case studies

4.4.1. Denmark

The UK is Denmark's second most important research partner (after Germany). Half of its Horizon 2020 (H2020) projects have British partners. The UK is also the main provider of co-authors for Danish academics. As with other countries, Erasmus student exchange partnerships were unbalanced (518 outgoing vs. 363 incoming).

Interviewees emphasised the UK's reputation for research excellence and its leadership in higher education-industry research links. They valued their UK partners

for the reputational benefits such associations carried as well as for the political power they exerted at European level, making them valuable allies in negotiations over whether EU funding policy should be based on quality or regional development. However, some disapproved of the emphasis on financial benefits that UK partners displayed, which resulted in unequal partnerships in terms of work allocation and unsatisfactory cooperation in Erasmus exchange partnerships.

The Danish Foreign Ministry has a Brexit task force; the Ministry of Research and Higher Education is commissioning a consultant's report; and increased embassy activity has been reported, although it is suspected that the purpose might be political (the UK might try to fund research partnerships with Nordic countries in exchange for political support in the Brexit negotiations at EU level). There was no evidence of Danish universities lobbying on the Brexit process at EU level.

Institutions are willing to continue cooperating with UK researchers even if it comes at a cost but fear the 'bureaucratic nightmare' such efforts might entail. As a result, Danish research teams may seek partners elsewhere (both EU and non-EU). One of the two universities under study was planning a recruitment tour in the UK order to draw top UK-based academics to Danish universities.

As a country with a high number of courses offered in English, Denmark might benefit from the departure of the UK, gaining significant competitive advantage on the international student market. However, in the current context where an anti-internationalisation discourse is on the rise, there are talks of limiting the numbers of foreign students in Denmark (the view was also expressed that there might be a 'domino effect' if the Brexit process did not have consequences for the UK).

Overall participants expressed concern but remained confident in the process, although academics were more concerned than other participants. The untenured UK academic felt slightly more vulnerable in this context.

4.4.2. Germany

Germany is the closest competitor to the UK in terms of successful ERC applications. In 2016, the UK was the main country partner in German EU-funded research. 3,327 German students went to the UK in 2014 under Erasmus (third largest contingent). The relationship between the UK and Germany is characterised by both cooperation and competition.

The report gave a sense that overall, participants had a 'relaxed' attitude to Brexit, even if all of them would favour the UK remaining in the EU. No specific lobbying or re-structuring activities were reported. Reported institutional strategies varied, from winding down existing UK partnerships and seeking new partners, to increasing them, but overall no structured strategy emerged. One instance of attempted poaching was reported but it was not part of a sustained effort. Participants were reasonably confident that given its strong status, Germany would have little difficulty in attracting new research partners from outside the EU and maybe also high-quality UK and non-UK staff.

In terms of research funding, due to its leading position, the interview partners discussed the possibility that Germany may benefit from the withdrawal of the UK. At the same time, most of the interview partners are confident that research cooperation with UK-based researchers would continue regardless of political decisions. Bilateral agreements and German federal funding could help sustain valuable formal research partnerships with the UK, while Germany's strong position would make it possible for its institutions to attract new partners (Scandinavia, rest of Europe, Asia, US, etc.). However, it was acknowledged that smaller institutions might be disproportionately affected.

The main concern expressed was in relation to student exchange, due to specific regulations that dictate that trainee English teachers need to spend a period of time in an English-speaking country. Consequently, differences were perceptible depending on the disciplinary orientation of the participant/institution.

Another significant concern was expressed in relation to the perception of the EU outside Europe and a possible loss of prestige of European higher education as a result of Brexit. Concerns were also expressed about the rise of anti-European movements in Germany.

4.4.3. Hungary

More than half of the H2020 projects (259/463) with Hungarian participants involve UK partners. In 2015, the UK was the third most popular destination for Hungarian students (1,681 outgoing, 438 incoming).

Research cooperation between the UK and Hungary is significant, at least on paper. However, the study revealed that in practice, Hungary did not feature prominently among UK universities' choice of partners (and even less so in the case of Russell Group universities). One interviewee explained that in terms of partnerships, UK

universities were driven by market principles and that since the early 2000s, they had terminated many of their agreements with universities in Hungary and elsewhere in Eastern Europe. The institutions surveyed reported relatively high numbers of official partnerships with the UK but it was noted that these were often dormant or largely inactive. Partnerships with German, Eastern-European and Central-European institutions seemed more active, with Hungarian universities more 'embedded' in these partnerships and networks compared to those with the UK.

At the national level, no specific strategy or concern was reported.

Responses collected from institutions (17) ranged from noting a negative impact (partnership negotiations falling through; administrative and financial difficulties in negotiating new ones; drop in available research funding; visa system discouraging Hungarian students) to envisaging a positive impact (bigger share of European research funding; UK universities becoming keener on establishing partnerships with Hungarian institutions); with a number of respondents anticipating no major change (some pointed to tenuous connections between UK and Hungarian institutions; others doubted that the UK would end up being significantly isolated).

Strategies varied as well, from a willingness to 'nurture' existing partnerships (cooperation) to seeking new funding sources, diversifying destinations or offering programmes in English. The 'wait and see' approach was common.

4.4.4. Ireland

The Republic of Ireland (henceforth, Ireland) and the UK occupy 'a shared higher education and research space' with a common research culture, similar organisational structures and frequent crossover/transfer of personnel and expertise between the two countries. The UK is a natural destination for Irish ERCs, and in 2016 there were 12,000 Irish students registered in UK universities (v. 2,239 UK students in Ireland). Research cooperation is extremely strong and stronger with GB compared to NI (with some institutions more oriented to mainland Europe). The UK is Ireland's largest research partner under H2020. Brexit poses specific issues for Ireland and Irish HE.

The sense of uncertainty was very strong, with concerns over the perspective of a hard border, with direct implication for staff and student mobility as well as for research and academic exchange and programme development, purchases of equipment etc. at the forefront.

At national level, a government committee was established to develop a Brexit strategy but its primary focus has been on NI, and issues related to the border. Interviewees at this level indicated that Brexit might provide the opportunity for Ireland to position itself as a major actor in European research as the sole English-speaking nation within the EU. This optimism was mitigated by funding difficulties, the difficulty HEIs have had in building their public image, and the fact that Ireland has yet to bring its internationalisation strategy to fruition. In addition, there was a lack of clarity or agreement in relation to who, between national agencies and HEIs, should take the lead in relation to Brexit. The possibility of creating an all-Ireland/island HE space was envisaged but the current political situation in NI makes it difficult.

At institutional level, there was a sense of (very) cautious optimism. Interviewees felt there was a need to carefully balance present and future engagements with the UK and the rest of Europe; that Ireland was well-positioned to attract researchers, students and EU funding but that budgetary constraints and the housing crisis posed significant risks. There was also some hesitancy around the issue of cooperation vs competition (with a fear of appearing as 'predatory'). One institution noted a sharp increase in the number of applications from the UK.

Academics were more preoccupied with research partnerships and access to shared research facilities. Some were wary of including UK partners in bids. As was the case in the Netherlands, some felt they would lose a precious ally in negotiations on HE matters at EU level. Diverse views were expressed on the opportunity to poach UK-based staff, with one participant viewing this as unfair to academics based in Ireland given the poor state of the academic market, and others viewing it as the obvious thing to do. Compared to institutional leaders, academics were more likely to emphasise cooperation (in research) rather than competition (over students).

4.4.5. The Netherlands

The UK and the Netherlands operated 1,279 joint projects under H2020. The UK is the Netherlands's second most significant collaborator while the Netherlands is the fifth most significant collaborator for the UK. The UK is the second most important source of co-authors for Dutch academics.

Research collaboration is very strong between the Netherlands and the UK, with variations between disciplines. It is noted that figures do not adequately capture the

significance of cooperation in the humanities and social sciences, which may be less dependent on EU funding mechanisms.

The UK is the top destination for credit mobility from the Netherlands and the second for degree mobility. Flows are very imbalanced (ratio 2.2 for Erasmus, i.e. 2.2 Dutch students sent to the UK against every one UK student received) but there has been a marked increase in degree mobility from the UK since the sharp rise in tuition fees in the UK (2012). The Netherlands has the largest offer of programmes taught in English in mainland Europe and has largely benefited from this exodus from the UK although UK students may not always be top performers. For every British citizen employed at a Dutch HEI, four Dutch citizens are employed in a UK HEI.

The initial reactions (recorded in spring 2017) were dismay and frustration with the uncertainty that made it impossible to plan strategically. Institutions where participants were interviewed were not at that point involved in lobbying at EU level (and felt this could be done through European university networks). Confidence in the process was low. The impact on academic mobility was unknown.

The US elections compounded the fears that the Netherlands would suffer disproportionately due to its historical Anglo-Saxon orientation. Interviewees expressed the fear that at EU level, the Netherlands would lose a partner with a similar political orientation and risk being dominated by Germany and France. The Netherlands perceives the UK as its strongest partner in driving competitive research funding.

Yet some initiatives (direct recruitment of UK staff, establishment of university partnerships, local or focused lobbying) were taking place at institutional level. Several participants expressed confidence that given the Netherlands' strengths (relative to its size, the Netherlands has a very strong position in terms of European research funding, citation impact as well as in world university rankings; it is a leading provider of HE in English), the country was the best positioned in Europe to take the lead in the case of a departure of the UK. Concerns about the anti-EU and more broadly anti-globalisation discourse in the Netherlands were also felt.

Brexit might lead to a re-centring of Germany, with which the Netherlands has strong economic and cultural ties (in higher education, stronger than with the UK). It may also make China more significant on the global stage; a development that would certainly be of interest to the Netherlands.

4.4.6. Norway

The Norwegian higher education sector has a strong history of collaboration with UK higher education institutions. The UK is Norway's second collaborator in H2020 after Germany. It is also the second favourite Erasmus destination for Norwegian students, again after Germany. The reverse is not true, with relatively few UK students choosing Norway as their destination. While the USA have been the main collaborator in terms of co-authored publications, the UK has been gradually catching up. Norwegian students study in the UK outside the Erasmus programme with the help of grants from the Norwegian government that students can carry elsewhere.

Research participants expressed scepticism about the prospect of the UK joining the European Free Trade Association (EFTA) in particular as they felt this would only be a transition for the UK and would weaken EFTA. Euroscepticism is rising in Norway although the political commitment remains strong – at university level solidarity and concern were expressed.

The two case-study universities chosen differ in terms of their reliance on EU research funding, and consequently they differ in terms of their reliance on UK partners for research funding and collaboration. While one university would be relatively unaffected by a withdrawal of the UK, the other would see a significant proportion of its funding in jeopardy. There is no distinct strategy yet but the university is closely monitoring the situation, and envisaging replacements in East Asia and Europe. As half of Norway's students in the UK are not on Erasmus, it is felt that many could still continue to travel to the UK, although the prospect of an end to freedom of movement is a source of concern.

4.4.7. Poland

Academic mobility flows are extremely unbalanced between Poland and the UK. The UK is the sixth Erasmus destination for Polish students. Yet Poland attracts about 10 times fewer students than it sends to the UK and Polish institutions employ only a small number of British academics.

There were 519 H2020 projects involving Polish and British HEIs (25 coordinated by Poland and 85 by the UK). In 2016, 3,015 publications were co-authored by Polish and British academics. But while the UK was Poland's third publication partner (after the USA and Germany), Poland was the UK's nineteenth publication partner.

Interviews at national level revealed a relatively optimistic attitude contrasting with the official (published) discourse; interviewees hoped that Poland would benefit from Brexit in terms of being able to secure a larger share of EU research funding, of reversing the current brain drain phenomenon, and being more interesting to potential UK partners. However, concerns related to Polish access to British research infrastructure and networks in key areas and the legal status of Polish students in the UK.

University leaders were less optimistic, fearing Poland would not be in a strong position to attract more EU funding or UK researchers. Academics were less optimistic again, fearing that the loss of the UK as a partner (and often a leader on projects) would have negative consequences. The issue of free movement and the long-term impact on the exchange of research ideas also emerged as significant concerns.

The Polish government has launched two large projects aimed at internationalising the system; one is modelled on an existing German initiative; the other aims to reinforce cooperation with Germany. There is also a programme to repatriate Polish researchers but an interviewee admitted Poland was not attractive enough to attract the best researchers back. One official expressed disappointment with a lack of interest in Brexit on the part of the academic community.

At the institutional level, there is a sense of relative powerlessness, although leaders hope to continue without the UK and to attract some Polish researchers back from the UK.

In relation to the future of European cooperation, opinions were mixed due to the context of uncertainty – some interviewees suggested that competition was a stronger driver than cooperation anyway.

Interviewees were also concerned about the impact of Brexit on the capacity of Europe to be seen as a significant region for research: the UK is seen as a gateway to Europe and adds significant critical mass.

4.4.8. Portugal

The Portuguese case study focuses on two contrasted institutions, one (A) significantly more high-profile compared to the other (B).

Student mobility flows between the UK and Portugal are unbalanced. UK citizens make up a small proportion of academic and research staff at Portuguese institutions

under study but many Portuguese academics are trained and/or work in the UK. 19.5 per cent of the papers published by Portuguese academics in international collaboration were co-authored by UK-based academics. In general, the UK is a major destination of Portuguese highly qualified migrants – some interviewees indicated that in this respect, the relationship was beneficial to the UK.

The interviewees felt that a hard Brexit would not significantly affect Portuguese HEIs in terms of research funding but that (1) the overall quality of EU research would suffer (2) free movement would be an issue for the many Portuguese students and staff living in or travelling to the UK (3) it would be an issue in particular for the science and technology sector, where collaboration with the UK has been strong.

Lately Portuguese institutions have been concentrating their internationalising efforts on other Portuguese-speaking and non-EU countries. Currently they are waiting to see how the negotiations turn out. Some participants were cautious about establishing consortia with UK-based researchers. Of all the case-study countries, Portugal is the only one where Ireland is explicitly envisaged as an alternative to the UK (for internship/student exchange).

Interviewees gave a sense that attracting UK researchers would be a good thing but that Portuguese HEIs are not attractive enough. One interviewee at national level spoke in terms of competition (over funding and workers) while academics tended to emphasise cooperation and historical links and to favour the inclusion of the UK.

4.4.9. Switzerland

Only 1.2 per cent of international students in Switzerland are from the UK; and the Swiss make up 0.7 per cent of the UK's international student population.

The Swiss National Science Foundation (SNSF) funds research and mobility programmes for Swiss researchers. The UK is the fourth most frequent collaborator in SNSF-funded research projects and the second destination for recipients of SNSF mobility grants.

A number of participants were ECRs originally hailing from the UK and temporarily based at Swiss institutions. Those who had voted Brexit among them downplayed the impact of Brexit on mobility and science; one was particularly critical of the EU researcher mobility policies. The main source of anxiety for the participants was the extreme competitiveness of academia in general, the scarcity of stable academic positions (and the prospect they would be further reduced with a post-Brexit drop in

research funding). Two participants underlined the difficulties for non-Swiss citizens to be recruited in Switzerland.

The prospect of barriers to mobility caused concerns; several participants envisaged having to apply for dual citizenship.

At institutional level, participants were cautious about continuing collaborative activities with UK partners and were conscious that other collaborators may want to put an end to multilateral partnerships. There was a sense that Brexit would be detrimental to STEM in particular, in terms of the capacity for Swiss researchers to collaborate and use UK-based facilities as well as in terms of the strength of research in the region in general.

They expressed the view that the UK would suffer economically and that the higher education system would experience severe funding issues that would make the UK a much less attractive place for researchers – in addition to the xenophobia expressed by the Brexit vote (two participants noted that unlike the Swiss situation, there was no interest on the part of the UK government to reverse or redress the situation). An increase in applications from the UK and Ireland to Swiss HEIs had already been perceived while it was predicted that Swiss researchers would lose interest in UK careers.

4.4.10. UK

6 per cent of students (concentrated at undergraduate level) and 17 per cent of staff in UK HEIs are from non-UK EU countries. The UK is the fourth most frequent destination for Erasmus students but sends out half as many as it receives. Non-EU students represent a larger share of universities' budgets compared to non-UK EU students. Under the Framework Programme 7, the UK was the second largest recipient of competitive research funding after Germany. It is the second most frequent collaborator under H2020, again after Germany, and the country with the highest number of ERC PIs. Papers with EU co-authorship represent over 30 per cent of all published UK papers.

At national (government) level, the following concerns dominated: international mobility and visas for HE staff and students (with difficulties due to disagreement between different departments); access to EU research funding and collaborations; whether and how to continue participating in Erasmus+ (generally considered a 'bad deal' for the UK); positioning of the UK on the EU and global market; the future of access to (and recovery of) student loans post-Brexit; how to stay aligned with EU

quality frameworks. Strategies to cope with Brexit included internationalisation outside the EU; closer links with business and industry, regions and the further education sector.

Concerns varied from one UK country to another – e.g. Scotland has a higher share of EU students; most of NI's EU students come from Ireland; Wales may suffer more from the loss of regional funds.

The focus of mission groups varied depending on the segment of the sector they represented. Some expressed the fear that without EU funding, research funding would become even more 'elitist' and detrimental to smaller institutions; while others pushed for increased funding concentration. Focus groups were actively engaged in lobbying but did not have the same access to decision-makers.

At institutional level, the key concerns related to EU staff and students. Instances of staff leaving the UK were reported, with detrimental consequences for ECRs working on their projects. Access to EU research funding was a concern as well, principally for smaller institutions fearing that the loss of access to European Regional Development Fund (ERDF) funds would reduce them to the role of teaching-only institutions. Institutional leaders also feared that post-Brexit policy would focus exclusively on profitable sectors and collaborations. Leaders were critical of the government strategy to focus on industry links and were keen to promote a broader vision of the role of higher education in society. While university 1 had set up working groups dedicated to Brexit, university 2 had not taken such steps and relied on the VC to drive their strategy. University 1 was particularly active in lobbying at UK and EU levels.

In addition to these concerns, permanent academics feared that Brexit would be used as an excuse to further re-structure the sector. Those from non-UK EU backgrounds worried about their quality of life and ability to travel. This was particularly the case for Eastern Europeans, who felt particularly vulnerable – less likely to obtain secure positions and with little to return to in their home countries.

Staff on insecure contracts were mainly anxious about the availability of research funding on which their continued employment depends; and about their right to stay in the country should their employment be discontinued. Their relatively limited financial means meant that access to the NHS and benefits were a concern as well. In a way Brexit dampened the optimism that had kept them hoping for some form of relative employment stability or at least continuity.

Across the sample, the view that institutional competition would increase was common – although it was suggested that this was due primarily to the UK marketisation agenda that the post-Brexit drop in funding would then exacerbate. Differences in how disciplines would be impacted were foreseen – e.g. the humanities and social sciences relying more heavily on EU research funding; equipment-heavy disciplines needing access to shared research facilities. In practice, however, the humanities and social sciences seem to have suffered more in the recent waves of redundancies compared to other subject areas.

5. Denmark: “Let’s see the results of the negotiations, then find a way to carry on cooperating”. Report of Danish Pilot Study on Possible Effects of Brexit. Miriam Madsen and Susan Wright

Miriam Madsen and Susan Wright, Centre for Higher Education Futures, University of Aarhus

5.1. Overview of the Research

This pilot study explored Danish ideas about the future of the European Research Area and the European Higher Education Area, and especially the possible effects of Brexit. The research entailed three interviews with policy makers in central government and Universities Denmark (the national association of Danish rectors and chairs of governing boards), and two case studies of universities positioned differently in the Danish sector: a globally oriented research university and a university that is more regionally focused. Each case study involved interviews with leaders at central level and leaders and academics in the two contrasting faculties of natural science and social science. The total number of interviews was 14 (see Table 5-1), one of which was a group interview with three interviewees. We interviewed two academics from the UK. The interviews were conducted in September-November 2017. Generally we found considerable concern about the likely effects of Brexit at national level, but in the universities there was widespread uncertainty over its likely effects and an attitude especially among leaders that, when the new legal relationship with the UK was settled, they would find a way of continuing to collaborate with good UK partners regardless.

5.2. Present situation: Significance of cooperation with the UK

Our interviewees at the ministry of higher education and research said Denmark had a ‘huge interest’ in cooperating with the UK in terms of research, education and European policy making (see statistics in Table 5-2). Danish policy priorities are to improve the quality and relevance of research and education through international links, and to make a closer connection between research and higher education so as

to produce graduates who can take up-to-date research and new ideas into companies and create innovations and new markets. The UK has important experience in these areas from which Denmark seeks to learn.

5.2.1. Research

Germany is Denmark's most important research partner and the UK is second. Denmark is a 'net gainer' under the EU Framework Programmes, and, of Denmark's 967 H2020 projects, half (462) had British partners (Table 5-2). The case-study university that is a globally oriented has strong research cooperation with the UK and 70 per cent of its 123 H2020 projects included a British partner. In the period 2008-2015, Danish academics published 18,896 publications with UK co-authors, more than with collaborators from any other country. In 2012-2017, the academics from this university had 4,354 joint publications with UK partners. Comparable statistics from the other case-study university were not available.

Denmark and the UK also participate in several space and other research infrastructure projects. The most important is the European Spallation Source (ESS) under construction at Lund, which Denmark co-hosts. This is an ERIC, a European form for organising and regulating common infrastructure projects. The UK contributes 10 per cent of the €1,843bn construction budget, and in 2018 there will be serious negotiations over the UK's contribution to operating costs.

Both ministry and university interviewees said the UK is influential because of its research excellence, illustrated by this quote from an academic:

Well, the UK has a great importance in all of the natural sciences, and not least in my field there is an entire school that emanates from Cambridge and Oxford... Besides being strong and excellent, because of being an illustrious nation who always paid homage to its strong universities, the UK has also been able to recruit from the whole world.

Other university interviewees confirmed this view that, because the UK has been able to attract the best researchers from all over the world, this has enabled it to sustain a position as a nation of excellent research. An interviewee at the ministry also thought the UK's experience of leadership made them influential: they have

contributed to Public to Public (P2P) actions¹¹ e.g. ERANets and Joint Programming Initiatives (JPIs) and shown how to make successful consortiums and effective secretariats from which other countries learn. For example, the UK and France jointly led (and a Dane chaired) the JPI on Agriculture, Food Security and Climate Change (FACCE JPI)¹² very successfully with the secretariat based at Swindon. Some university interviewees, however, referred to UK universities as oriented towards gaining 'cool cash' from research cooperation, which sometimes resulted in unpleasant situations. One example was about cooperation with UK researchers, who had clearly been pushed by their university to participate in a project, just to get funding for the university.

Views were therefore mixed: one ministry interviewee said,

There are many large and small policy areas where the EU needs, and benefits from, the UK's research and experience. It has lots of experience we can gain from, so this is a loss,

whereas another said, 'If we lose our UK partners, we'll find other partners, but it will be a pity if they are not involved'.

5.2.2. Education

The UK is the most popular place for Danish students to study abroad because of the language and because it is an attractive place to live and has high academic standards. The ministry considers that students going to the UK for 6-12 months raises the quality of their education and is concerned for the consequences to Danish educational quality and relevance if students lose mobility to the UK.

In 2014, 4,800 Danish higher education students and staff went on Erasmus+ exchanges to European countries, of whom 881 went to the UK (18 per cent) (see Table 5-2). This number stayed constant at 884 in 2015 and 891 in 2016. The number of students and staff from the UK on Erasmus+ mobility to Denmark was 393 out of 17,096 (2 per cent) in 2014 and this had risen to 561 by 2016. Whereas many more Danish students (518) went to the UK than UK students (363) came to

¹¹ P2P are outside of H2020 but still actions to create a European Research Area. Their aim is to create alignment between ministries and research agencies, pooling their own resources and without EU money. Denmark is also active in another ERA action, Public-Private initiatives (PPs), that come under H2020 and involve industry, but it is unclear whether any of their PPs involve UK partners.

¹² <https://www.faccejpi.com/>

Denmark in 2016, the numbers of Danish and UK staff on exchange visits were equal (105 and 106 respectively).

EU cooperation on HE and student mobility also includes mobility outside Erasmus+. In 2014 the Danish universities had 70 arrangements with foreign universities for joint, double or Erasmus Mundus degrees, although it was not known how many included a UK partner. In 2015, 1,525 Danes took their whole degree in the UK while only 397 UK students took a Danish degree (but this had risen from 159 in 2011). The number of UK students receiving a student grant (SU) for taking their whole degree in Denmark also rose from 36 (out of a total of 441 EU citizens) in 2011 to 264 (out of 9,664 EU citizens) in 2016, a rise of 42 per cent. It will not be possible for Danish students to take a full degree in the UK after Brexit if there is not free mobility, unless there is an agreement with the UK.

Our case study universities had different levels of educational cooperation with UK universities. For the globally orientated research university, the UK was the ninth most visited country for student exchanges, but these exchanges were not equally distributed across the university. While the university sent a total of 72 students to the UK in 2015-2016, the faculty of natural sciences and technology sent only about 10 students to the UK per year. The more regionally focused university had very limited cooperation with UK partners, as only 3 per cent of the Danish students went on exchange visits to the UK, and around 0.5 per cent of the incoming exchange students were from the UK.

According to several university interviewees, one reason for this limited cooperation was the difficulty in finding UK partners who were willing to engage in student exchange. Although UK universities were very attractive partners for Danish universities, Danish universities were not equally attractive to UK partners. This lack of partnerships meant that Danish universities were not able to meet Danish students' high demand for exchange visits to UK universities and students were forced to choose other destinations. One successful partnership was asymmetrical: Danish students visited a UK university for a whole semester; while the UK students, who were less mobile during the semester than Danish students, visited Denmark for a summer school. In another case, a UK partner institution withdrew from a partnership, because the Danish university was not attracting enough UK students. A few interviewees also talked about UK partners being difficult:

I have some unpleasant anecdotal stories in my mind where it was very clear that someone had been pushed by their university to join [the project] in order to get money for the university.

The interviewees explained that UK universities faced harsh economic circumstances and therefore pushed for gaining overheads from projects, or contributed less to the organisation of partnership activities.

5.3. Concerns and Opportunities

5.3.1. At national level

The Danish Foreign Ministry has a Brexit task force, looking at the consequences for all policy areas, including cooperation on research and higher education. However, negotiations in Brussels over research cannot be considered separately from other policy areas. A ministry interviewee pointed out that the EU knows that the UK has a strong interest in staying in the research area and could use this as a bargaining chip in negotiations over other areas, e.g. 'No cooperation if you don't settle the divorce payment or the status of citizens or if you don't accept free movement'. Another interviewee thought that the Commission would hold back on discussing research until the very end, in a year's time. Anyway, it will be difficult to finalise the divorce and the future relations before March 2019, so an agreement about H2020 associated status for the UK will happen after that and the ministry was interested in exploring what interim agreements might be possible.

The Ministry of Research and Higher Education was commissioning a consultant's report in December 2017, reporting summer 2018, to gather information on key issues for the negotiations. This would involve interviews with the research sector (including universities) and the business environment. Topics included: possible challenges to the framework programme, space, and infrastructure projects; EU cooperation on HE and student mobility, both within and outside Erasmus+; and potential scenarios for the impact on Danish research if there is no agreement or if there are different kinds of associated agreement.

Questions being asked in the ministry included: What will be the consequences for their policy aim of improving education 'quality and relevance' if students lose mobility to the UK? What will be the consequences for different disciplines – where can they find other excellent research partners? Will a lack of UK partners affect

Denmark's ability to win funding for projects? Or will academics keep cooperating regardless, as they just seek out the strongest scientific centres, wherever they are located?

One ministry interviewee thought that cooperation would still continue even if the UK was not part of the Framework Programme because 'only 10-15 per cent of total European research spending is in the hands of the Commission and about 80 per cent of the total budget remains with the member states'. There are ERA actions that are outside H2020, such as Joint Programming Initiatives (JPIs), ERANets, P2P, ERIC and ESFRI, the European Infrastructure Programme. These are open to countries outside the EU – Brazil, Korea, US, India, South Africa – and are member-state driven with each country putting their own resources and manpower into an initiative, so the EC is not involved, although disputes are settled in the EU. If the UK leaves H2020, it will not automatically leave these partnerships. However, it may be difficult for the UK to keep its leadership positions in JPIs because they will not be able to cooperate so extensively (especially if the UK has reduced budgets, and if there is not freedom of movement).

The UK was expected to want to continue its involvement in the European Spallation Source (ESS), an ERIC in which third countries can participate, but Brexit may have indirect consequences. For example, a slowdown in the British economy or a fall in the value of the pound could affect the UK's ability to honour its financial obligations to the project. If a cooperation has a UK HQ, then there may be difficulties over legal status. The registered office for an EU project has to be a member state or associated country, and the UK was expected to be the lead in several more ERICs, e.g. INSTRUCT, where Denmark is a participant, and it was unclear whether the project could continue to be based in the UK after Brexit.

UK-Nordic approach?

The UK seemed to be contemplating making an initiative towards Nordic universities, seeing as they are such important research partners. The British Embassy in Copenhagen had suddenly become very active and had appointed a new and very energetic science attaché, and a visit by the UK's Brexit Minister and a Scandinavian tour for Vice-Chancellors was being planned. Mindful of the way the UK tried to entice German car manufacturers to put pressure on Angela Merkel for a post-Brexit special deal undermining the single market,¹³ it was thought that the UK would try to

¹³ <https://www.theguardian.com/politics/2017/jul/08/german-industry-warns-uk-over-brexit>

offer Nordic universities a well-funded system for research collaboration if they would do something in the policy poker game. For example, the UK could try and entice Nordic universities to complain to their governments that they cannot live with research being last on the EU's agenda for negotiations.

Associated agreement?

Denmark had not taken a firm position on what the conditions of the UK's associated status in H2020 should be. It is unlikely that the EU would agree to let the UK continue to be a net gainer. More likely the EU will say the UK should pay an amount into the budget which is about the same as they take out. Ultimately it will be a political decision – whatever can be justified to their countries' publics.

There is no comparable situation. Norway, Israel and Turkey are all in H2020, although not in the EU. They pay for their own participation but Norway is a net contributor and although Switzerland and Israel are net gainers, they are small countries with only a small gain so this is not a big political issue. The UK is a huge net gainer. Some countries that have associated status do not have free movement, but in the UK's case it is a political issue.

On the ERA governance structure, according to our ministry interviewee, associated partners can also have a voice. The UK is participating in the development of FP9, and their voice is still listened to. On the ERAC (ERA Committee), which prepares papers to the Council and the Commission on ERA, all the associated countries to ERA and the Framework Programme are observers. They have no vote but they can participate in the discussion on equal terms. Our ministry interviewee felt that Norway and Switzerland have the same voice as other members, so the UK has the option of being heard – and of continuing to be an ally for Denmark.

Will Brexit have a reputational impact in Danish research?

Our ministry interviewees gave two different answers. Yes, Brexit affects everything, as UK partnerships are very important for Denmark's ability to raise the quality and relevance of research and teaching; and no, researchers make their own co-operations and will continue collaborating anyway as the UK has some of the strongest research groups in the world. The Danish research funding system can fund research with a British partner (researchers or business) if it is a good project and benefits Denmark. This means the cooperation between universities will continue despite Brexit.

5.3.2. Main concerns / opportunities at institutional level (leaders)

The concerns among institutional leaders varied, but the overall message was that Danish universities have a will to cooperate with British universities, and that they will find ways of doing so, no matter the outcomes of the Brexit negotiations. Several interviewees thought future cooperation with UK partners might resemble those with partners in Norway, Switzerland, or even partners outside Europe (e.g. USA and Australia), with whom Danish universities cooperate in many different ways even though these countries are not members of the EU.

The ministry had received some inquiries from researchers about whether to include British partners in consortiums and their advice was to keep cooperating with UK partners. They referred to the UK government's Brexit paper 'Collaboration on science and innovation – a future partnership paper', in which the UK government promises to honour any agreements entered into before Brexit (HM Government 2017:11).¹⁴ However, one interviewee told us of the 'bureaucratic nightmare' ahead. If the UK changes its status to an associate partner or third country in H2020, then universities will have to amend all the EU contracts for projects with a UK partner. Each contract takes 3-9 months to renegotiate with the EU, and for universities with a hundred or more contracts, this means employing more lawyers. It seemed some universities were informally advising academics to avoid British partners and see if they could find a German partner with the same profile. A university research leader said that several academics had been concerned about including UK partners in applications for new projects and he could see how uncertainty over UK's future EU-funding status affected the behaviour of the researchers at his faculty.

Leaders and coordinators were concerned that it might become more expensive and complicated for students to visit UK universities during their studies if the Erasmus scholarships were no longer available and the visa requirements changed. This was still not considered a major obstacle because the student exchange with the UK in some fields was relatively small compared to other countries and because the UK would remain an attractive destination regardless of these obstacles. If obstacles did become prohibitive, that was not seen as a problem as there were many other great universities across Europe that the students can visit.

¹⁴https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/642542/Science_and_innovation_paper.pdf

Brexit might also afford some educational opportunities, as Scandinavian and Dutch universities have the most courses in English, and leaders expected that students from other European countries, who would have chosen the UK as their exchange destination, after Brexit will chose Denmark instead. This would put Denmark in a strong position to choose among the best students in Europe, but this opportunity may be counteracted by political moves to reduce numbers of foreign students in Denmark (see section 5.4.3).

The interviewee from Danish Universities set out a number of other ‘unknowns’: would UK universities try to set up branch campuses in Europe and apply to Framework funding from that country? Would professors seek dual positions in the UK and an EU country, and then would they be eligible for Framework Programme funds? Might the Danish Ministry move one of its international science ambassadors from India or Brazil to the UK to build up new research and innovation collaborations with UK universities?

5.3.3. Main concerns / opportunities at institutional level (academics)

The academics interviewed tended to be more concerned about Brexit than the university and faculty leaders. One researcher from the natural sciences was concerned that future UK research and researchers might lose their excellent status. He believed the UK’s research community would be weakened by decreasing opportunities for funding and network participation and by the best academics no longer seeking positions at UK universities. The loss of access to ERC grants would make it less attractive for researchers to be based in the UK. He expected the weakening of the UK research community to affect the European research community in a negative way. Other academics thought the UK would invest in research on a new scale and overcome the risk of UK researchers having fewer research partnerships, so they would continue to be attractive partners for Danish researchers.

5.3.4. Main concerns / opportunities of UK academics in Denmark

Only 18 per cent of academics recruited in 2011-13 were foreign nationals and it is not known how many were British or were Danish academics with UK qualifications. Anecdotally, one ministry interviewee knew there were many UK researchers in certain fields, e.g. agriculture and bio-economy. There has been no discussion in the ministry about what Denmark will do with British academics after Brexit.

The perception of university interviewees was that there were few British employees. Importantly, Danish academics did not think of their colleagues in terms of their nationality, but in terms of their research field and excellence. The two British academics in Denmark that we interviewed were in very different situations. One had lived in Denmark throughout his whole career, had a permanent contract at a Danish university, and had originally moved here because of his wife. The other had moved here recently because of her temporary employment at a Danish university. Both had job functions in relation to internationalisation, one as an international coordinator and the other as an educational consultant, teaching international staff. For both, their UK background had been a slight advantage in their Danish employment, because of their language skills (in relation to teaching and writing in English), and because of their personal experience with moving to Denmark, which other international staff and students could learn from.

Neither of them was particularly concerned about Brexit in relation to their personal situation, although they expected some extra bureaucratic hassles. The academic who had worked and lived in Denmark for only four years expressed a higher level of uncertainty about how Brexit and her residence in Denmark could affect her pension in the UK. She explained that she had become affiliated with a UK university to have a plan B if necessary. None of them had received any information from their workplace or government about their status as employees and residents in relation to Brexit. The long-term resident in Denmark had considered applying for citizenship, but this decision was not made because of Brexit.

The main issue for both of them was the tension between national and European identities created by Brexit. The interviewee who had recently migrated from the UK in particular felt an ambivalence between wanting to live in the EU and feeling guilty that she did not move back to the UK to contribute to a 'socially just Brexit outcome'.

None of the university leaders we interviewed had any concerns about employing UK staff in the future. Rather, they wanted to do more to ensure that Denmark was an attractive destination for academic staff and their families so as to retain international staff better. Their general approach was that bureaucratic obstacles could be overcome, and that the important thing was to employ the most qualified, no matter their nationality.

5.3.5. Silences

Several interviewees mentioned a major concern about a possible domino effect of Brexit. Brexit poses limited concerns if the EU still functions and is strong after Brexit. But interviewees feared that if the Brexit negotiations ended up with an agreement that had no major consequences for the UK, other countries may become inspired by Brexit to follow in the UK's footsteps.

5.4. Plans and strategies

In general, the people we talked to at the two Danish universities were awaiting the results of the Brexit negotiations before developing plans or strategies on how to deal with potential problems. They felt that the consequences of Brexit were still very unclear and they had not yet planned any specific actions.

We heard that, although Danish universities did not want to be vultures, they were receiving emails from UK academics, or European academics employed in the UK, inquiring about relocating to Denmark, especially if they had an ERC or other grant. We also heard that there had been an increase in UK-based academics responding to Danish job advertisements over the last two years, although it was too early for these to show in the national statistics. Some leaders we interviewed saw an opportunity to recruit top researchers currently based in the UK because the UK would become a less attractive country of residence. Especially in the natural sciences, interviewees expected European staff in the UK to seek opportunities to become employed in other European countries, including Denmark. These leaders explained that European academic staff in the UK would be interested in moving because they feel that their future possibilities in the UK are uncertain, and because they want their children to grow up in Europe. One of the case study universities had specifically stated that they will not pursue this opportunity, while a faculty at the other university that was recruiting a significant number of staff planned to do a recruitment visit to the UK. They would travel around the country talking about the faculty and hoping to encourage some of the best qualified researchers to apply for positions that were currently available.

5.4.1. Cooperation / competition

All of the interviewees talked about the relation between Danish universities and partner universities across the world as a relation of cooperation. One person talked

about this cooperation as a matter of playing to each other's strengths. He gave an example of sharing laboratory facilities with universities in the US, which enabled both of them to test specific technologies in laboratories equipped for European and American legal standards respectively.

Only in terms of education was the relation talked about as one of competition. However, this competition was not between specific universities, but more in relation to the wider global market of higher education and the recruitment of students to the university. When referring to specific partners, they always talked about cooperation. For example, one interviewee had a meeting with the recruitment office at a Swedish university, sharing experience and knowledge about recruitment practices, regardless of the fact that they were competing for the same potential students.

5.4.2. Internationalisation

Our university interviewees generally saw internationalisation as a growing phenomenon. Some interviewees talked about research environments becoming more and more international with the increased recruitment of international staff. They gradually needed to communicate in English in official emails, on courses, and at the lunch table. Several interviewees talked about education also becoming more international, e.g. by introducing an international semester for all BA students, where students needed to study abroad or follow a programme of 'internationalisation at home'. Many of the interviewees framed internationalisation in terms of talent and excellence, where the best teaching requires international students in the classroom, the best education for the future work life requires intercultural understanding and skills, and the best research requires recruitment from the widest possible pool of candidates. One interviewee talked about future internationalisation as 'less is more', explaining that his faculty was aiming for stronger, more strategic partnerships rather than gathering as many partners as possible, as they had done previously.

5.4.3. Ideas about the future of higher education at national level

While the university interviewees agreed upon the prospects of growing internationalisation and its necessity for excellence, most of them also talked about the current Danish government's negative internationalisation discourse. They referred to political discussions about reducing the number of education programmes taught in English, and about preventing access to free education and student grants for Europeans who do not stay in Denmark after graduation to work and pay taxes.

The background to this is a ruling by the European court that European citizens who come to Denmark and work part-time should have workers' rights, i.e. they are eligible for the student grant (SU) and student loans (which are hard to recoup when they move country again). When a branch of higher education, the Professional Academies, recruited heavily in Europe, and the students left on graduation without working or paying taxes in Denmark, Parliament forced them to cut 25 per cent of their courses in English as a way of reducing non-Danish students. As numbers of non-Danish university students are also increasing, Parliament has commissioned a report and may make a similar demand to cut university courses in English. Danish Universities has published its own cost-benefit analysis and shown that in all disciplinary areas (and especially engineering) foreign students yield a surplus to the Danish economy.¹⁵ Although the debate is ongoing, university interviewees expected the number of European full degree students to decline as a result of political regulation. One informant talked about this regulation as related to graduate employment, and when asked whether the university was measured on the graduate employment of international students, he answered 'not yet'. Our interviewees understood these signals as related to the economy and the protection of national resources, which was in line with the existing requirement to balance ingoing and outgoing students. Furthermore, one interviewee pointed to the absence of an international strategy at national level, which she related to the presence of nationalist parties in the current government.

Another national agenda requires most education programmes within the humanities to cut their student numbers because of their relatively high graduate unemployment. As BA students have a legal right to be enrolled on the MA programme associated with their BA degree, in effect, there will be very few places left for other MA students than the programme's own BA students. Some interviewees viewed this policy as a barrier for enrolling incoming international students at Danish MA programmes within the humanities.

5.4.4. Correspondence of the concurrent trends with the impact of Brexit

The Danish government tends to view internationalisation as a threat to national resources and this corresponds with the Brexit idea of preventing immigration into the UK. This is in contrast to ideas expressed in the university and the ministry about

¹⁵ https://www.altinget.dk/misc/Samfundsokonomisk_regnskab_for_internationale_dimittender.pdf

growing internationalisation being a necessity for the excellence of Danish education and research.

5.5. Future perspectives

5.5.1. Implications for EU initiatives such as the EHEA and ERA

At the national level, one ministry interviewee made clear:

The biggest impact of Brexit will be in policy. The UK may not be the most important partner in a particular project, but they have a very big and important role in forming EU research policy – because they have the most qualified people and they have made use of the system and tried to influence the discussions – especially in ERA and H2020, not so much in the Council.

There is strong political cooperation between the UK and Denmark over ERA. They are among the nine countries that form a ‘group of excellence’, including France and Germany, but the UK is very strong. They meet at attaché level in Brussels, e.g. to discuss the Council conclusions on the mid-term evaluation of H2020 and the next Framework Programme. Ministry officials also meet each other in capital cities (not Brussels). When Denmark is preparing for these meetings, ‘the UK is one of the first ones we call, then Netherlands, Germany, Sweden’. The UK ‘is a like-minded partner for Denmark and it is a big voice from a big country, whereas Denmark is a little country.’

In negotiations over FP9, Denmark is allied with the UK on the argument that the Framework Programme and H2020 grants should focus on excellence – funding the best partners – whereas others want to reserve funding for new EU members that get less out of H2020 because they do not have strong research communities. Denmark agrees that it is the EU’s role to build up infrastructure and research capacity, but this should be done through European Structural Funds (ESF), not the Framework Programme. Denmark and the UK (both net gainers) argue that they have built up national capacity through national investment over the years and new members cannot expect higher participation and benefits from membership if they do not invest to build up a critical mass and excellent research systems. Nordic countries also want to preserve the size of the research budget and resist money

being moved over to ESF. In making these arguments, the UK is an important ally for Denmark with excellent diplomacy and a big voice.

5.5.2. Changes in the EU landscape

The ministry interviewee said they are looking among non-traditional allies for other possible excellent partners and policy allies. They usually work together with the Netherlands, Sweden, UK, Germany, Austria and Ireland. Now they are looking more broadly – to Portugal for some policy areas and to Poland for others. The Nordic countries' alliance will not change – it is always very strong – 'we have the same issues and have been talking to each other about Brexit'.

University interviewees from both the social sciences and the natural sciences talked about strengthening their cooperation with new regions like Eastern Europe or Asia. However, none of them had taken any steps or made any decisions towards forming new alliances because of Brexit. Rather, they talked about a stronger cooperation with these regions as emerging trends, which they expected to accelerate if the UK became unattractive as a partner. They did not point specifically to the Nordic cooperation as a potentially stronger alliance.

Other university interviewees expected the UK universities to maintain their status as highly attractive partners because of their historical role, both in establishing European society in general and in founding various research fields. These interviewees did not expect Brexit to affect the status of UK universities, despite possible financial and bureaucratic obstacles, and did not see a need for alternative alliances to replace the UK.

5.6. Transversal questions

5.6.1. EU / national advocacy and lobbying on Brexit

The Ministry has had a meeting with universities (at Director level), for the ministry to present what was going on, and also a bilateral meeting with Universities Denmark (DU) to brainstorm on the challenges posed by Brexit. Most of the discussions seemed to be through informal contacts with very few public statements. The interviewee from DU pointed out that Brexit was important, but they could not change the EU's strategy, and did not have the wherewithal to make it a high priority

because the national agenda was already full, with the government's extensive range of current reforms to higher education and university funding.

None of the interviewees at university level had heard about the universities taking part in any lobbying on the Brexit process, but one interviewee expected that this might be done via networks such as COIMBRA and LERU.

5.6.2. Confidence in the Brexit negotiations

Several Danish university leaders expressed a high level of trust in the Brexit negotiations, mainly because they trusted in the EU, or because they could not envisage the UK risking all their valuable research communities, networks, and status, by excluding themselves from future cooperation.

...I have a quite strong belief in authorities when it comes to the messages about Brexit not causing problems, and we have bureaucrats to take care of that, and they are well aware that we need to handle this risk, and I believe that they will solve it in a way that will not cause problems for those who are engaged in a research cooperation. I simply believe in it ... The research cooperation is of such a great importance for a country that I am quite confident that they will make sure to handle it.

A few academics were, however, more sceptical towards the outcomes, including the academic who recently moved to Denmark from the UK.

5.6.3. Link between discourse and practice

There was a general conception in our material that it was not possible to do anything about Brexit until the negotiations had produced specific results, and then academics would find a way to maintain valuable collaborations somehow. From the interviews in this pilot study, it seemed that Danish universities to a large extent ignored the discourse around Brexit. Brexit was mainly considered a problem for the UK and not for Danish universities. There were exceptions to this view, especially among interviewees involved in national policy discussions, but most university interviews were permeated with a strong willingness to continue the cooperation with UK universities and to make things work despite practical obstacles. Some assumed that things would work out, while others were continuing to develop relations with UK researchers and universities in spite of, or as a resistance to, Brexit.

One interviewee strongly expressed a conception of the whole Brexit discourse as spin, produced to prevent other EU members from following the example of the UK. He considered our pilot study to be part of this spin, and distanced himself from the underlying assumptions of the project of Brexit as an issue for Europe. Brexit might lead to some problems for both the UK and Europe, but in his opinion, these problems would not be major.

5.7. Annexed tables

Table 5-1 [Denmark] Distribution of interviews

Institution	Sub-institution	Interviewees
Ministry of Higher Education and Science		Head of Division Team Coordinator
Danish Universities		Deputy Director
Globally oriented research university 26,867 students and 7,853 staff*	Central level	Leader Advisor
	Faculty of social sciences	Leader Academic (senior)
	Faculty of natural sciences and technology	Coordinator Academic (senior) UK Academic (senior)
Regionally oriented university 17,594 students and 3,772 staff*	Central level	Leader Coordinator UK Academic (temporary)
	Faculty of social sciences	Leader
	Faculty of technical sciences	Leader Leader

*Numbers in full time equivalents, 2016

Table 5-2 [Denmark] Background statistics

	2011-12	2014-15	2015-16	2016-17
Erasmus+ staff and student mobility				
From Denmark to all European countries		4,800		
From Denmark to UK		881		
From all European countries to Denmark		(18%)		
From UK to Denmark		17,096		
Hereof Regionally oriented University		393 (2%)		
To all European countries			844	849
To UK		818	21	16
From all European countries		25	541	508
From UK		437	3	2
		0		
Erasmus+ student mobility (3+ months)				
From Denmark to UK		500	517	518
From UK to Denmark		267	322	363
Hereof Regionally Oriented University				
To UK		25	20	15

		2011-12	2014-15	2015-16	2016-17
From UK			0	3	2
All Exchange students					
All Danish students abroad		7,844			
From Denmark to UK		728	1,069		
All International students in Denmark		8,741			
From UK to Denmark		207	269		
Hereof Regionally Oriented University					
To UK			34	21	21
From UK			0	3	2
Hereof Global University					
To UK				65	72
From UK				35	45
All Full degree students					
All Danish students abroad		4,019			
From Denmark, taking full degree in UK		1,744	1,614	1,524	
All International students in Denmark		20,125			
From UK, taking full degree in Denmark		249	384	397	
EU students receiving Danish student grant					
UK citizens (42% increase 2015-16)		36	125	186	264
Total EU citizens (26% increase 2015-16)		441	5,369	7,653	9,664
Erasmus+ staff mobility					
From Denmark to UK			89	88	105
From UK to Denmark			85	104	106
Hereof Regionally oriented University					
To UK			0	1	1
From UK			0	0	0
Foreign staff recruited to Danish Universities 2011-13** (% of total staff)	896 (18%)				
UK staff employed at Danish universities	Unknown				
Danish staff with UK qualifications	Unknown				
FP7 projects (2007-13 Total budget €50bn)					
Number of projects with Danish partners	2,011				
Number involving Danish and UK partners	1,214				
H2020 projects (2014-20 Total budget €75bn) in March 2017					
Number of projects with Danish partners (€555m, 2.45% of total)	967				
Number involving Danish and UK partners	462				
Hereof Globally oriented University					
Number of projects with Danish partners	123				
Number involving Danish and UK partners	86				

		2011-12	2014-15	2015-16	2016-17
Joint publications with UK partners 2008-15	18,896				
Hereof Globally Oriented University 2012-2017:	4,354				
Danish universities' Joint / double degrees /Erasmus Mundus *	70				
With UK institutions	Unknown				

Sources:

Note on International student mobility between Denmark and the UK, in the context of Erasmus+. Danish agency for Science and Higher Education, 20 Sept 2017.

Note on International student mobility between Denmark and the UK. Danish agency for Science and Higher Education, 20 Sept 2017.

Table 4 SU tildelt til EU/EØS borgere... Uddannelses og Forskningsministeriet, accessed at ufm.dk/uddannelses-og-institutioner/statistik-og-analyser/eu-borgere-med-SU/statusoverudviklingeuiantalletafEUborgeremedSU2017.pdf

English summary: Student mobility in Danish higher education 2011/12. Accessed at ufm.dk/uddannelse-og-institutioner/statistik-og-analyser/international-mobilitet/1112.english-summary.pdf

Danmarks deltagelse i Horizon 2020 ufm.dk/uddannelse-og-institutioner/statistik-og-analyser/tilskud-til-frskning-og-innovation-s-rammeprogram-for-forskning/deltagelse-i-h2020-danmarks

*DAMVAD for Uddannelses- og Forskningsministeriet '2014 Fælles uddannelsesforløb: omfang og muligheder', 17.juni, p. 26

<https://ufm.dk/publikationer/2014/filer-2014/rapport-faelles-uddannelsesforlob-damvad-17-06-2014.pdf>

** pages 24-25, Table 37 in <https://ufm.dk/forskning-og-innovation/statistik-og-analyser/forskere-ved-universiteterne/forskerrekrutteringen-pa-universiteterne-2011-2013-statistiknotat-2.pdf>

6. Germany: Much ado about nothing? – Perceptions in German universities regarding the impact of Brexit. Jens Jungblut and Tim Seidenschnur

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6.1. Overview of the research

This national report presents our preliminary findings on the prevailing perceptions in German universities regarding the impact of Brexit on German higher education. The German higher education system is among the largest in Europe with a total of 428 higher education institutions, of which 106 are universities, and more than 2.8 million students, of which 1.7 million study in universities.¹⁶ While these numbers underline the size of the sector, German universities have historically been regarded as rather homogenous and only recently started to diversify, among others, due to the influence of policies like the excellence initiative (Jungblut & Jungblut, 2017). Concerning the sampling, we decided to base the sampling first on public universities and thus exclude universities of applied science (*Fachhochschulen*) as well as private higher education institutions in order to reduce complexity in the field and focus on the most important part of the sector. Due to the comparably low vertical stratification of German universities we see no need to pick cases from the top, the middle, and the bottom of university rankings in our sample. Instead, we sampled the universities in which we conducted interviews for this report from three institutional archetypes whose structural differences we see potentially more influential for the perception of Brexit than vertical stratification: 1) comprehensive research universities, 2) medium-sized regional universities, and 3) technical

¹⁶ See:

<https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/BildungForschungKultur/Hochschulen/Hochschulen.html> (08.11.2017)

universities. Thus, we identified one university from each archetype and approached the institution's leadership to assure their collaboration in the project. In cases where we were not able to get the support of the university's leadership, we dropped that institution and identified a different representative from the same archetype. Due to this sampling method we are confident that even though the number of universities in the sample is limited, our findings still provide a good overview of the perceptions in public German universities regarding the impact of Brexit on the German higher education system. At the same time, we are also aware of the limitations regarding the external validity of our results. This study has an explorative character and it would clearly be desirable to expand the empirical data and investigate whether our findings hold also in other universities, or maybe even different types of higher education institutions in Germany.

The comprehensive research university that we sampled for our study is among the 20 largest universities in the country with around 34,000 students. While it is a research intensive institution that puts a strong focus on acquiring external research funds in all disciplines, it is especially successful in the hard sciences. The university is not among the so called "excellence universities" that have been successful in the third line of the excellence initiative, but through the breadth of its departments and its size it has a medium level of international visibility. The medium-sized regional university that is included in the sample has around 25,000 students and is a reform university that was created in the 1960s with a focus on education and regional impact. Today the institution is trying to reorient itself towards acquiring more external research funding, but it does so mainly through the German Research Council or state programmes. Overall its international visibility is much more limited compared to the other two institutions. The third university has around 26,000 students and is a technical university that belongs to the oldest technical universities in the country. Due to its research profile and long tradition the institution is internationally well connected and visible.

We conducted a total of 15 interviews in the three institutions. Each interview was conducted face-to-face, lasted between 30 and 90 minutes, and has been audio recorded and transcribed. All interviews have been conducted between the months of July and November 2017. We sampled our interview partners based on their professional role in the university relying on four categories: 1) university leadership, 2) central administrative offices (e.g. office for internationalisation or office for research coordination), 3) professors that have been active in international

collaboration with partners in the UK, and 4) non-tenured academics that are or have been active in some form of collaboration with the UK. We first approached the leadership of each university and used snowball-sampling in which we asked our informants in the leadership to identify suitable interview partners in the other categories. In addition, we also asked other informants and relied on information on the institutions' websites to acquire additional interviewees. Due to time constraints we were not able to interview the same number of informants in the technical university. However, we feel confident that this has no major impact on our results. The table below provides an overview of the interview partners in each university.

Table 6-1 [Germany] Overview of interview partners in the three universities

Institutional archetype	Professional role	Number of interviews
Comprehensive research university	Leadership	1
	Central administration	2
	Professors	2
	Non-tenured academics	1
Medium-sized regional university	Leadership	1
	Central administration	2
	Professors	2
	Non-tenured academics	1
Technical university	Leadership	1
	Central administration	1
	Professors	1
	Non-tenured academics	0
Total number of interviews		15

To ensure comparability, we structured the interviews based on the common interview guide that has been developed jointly for all countries participating in this study. This interview guide has specific sets of questions for the different groups of informants that focus on their concrete professional roles. The following sections present the results from the German interviews along the main analytical dimensions of this project.

6.2. Present situation: Significance of cooperation with the UK

The UK is in general an important cooperation partner for German higher education institutions, both regarding their teaching and their research function. With regard to

the teaching function, the UK ranks third concerning Erasmus student exchange numbers with 3,327 German students spending time at UK universities in 2014. The second and first place are taken by France with 5,085 students and Spain with 5,348 students.¹⁷ With regard to the research function of higher education, German institutions were involved in 1,344 EU funded research projects in 2016. The highest number of project partners in these EU projects came from Germany. However, institutions from the UK provided the second highest number of project partners ahead of Italy, Spain and France.¹⁸

With regard to research cooperation, especially concerning EU-funded projects, the relationship between the UK and Germany can be characterised by both cooperation and competition. While the UK is the most important partner country for German higher education institutions, both countries are in general among the most successful attractors of competitive EU research funding. When looking for example at the number of ERC projects that both countries acquired between 2015 and 2017, it becomes clear that the UK was the most successful European country with a total of 455 successful project applications, while Germany was the second most successful country with 361 projects.¹⁹ Thus, while higher education institutions in both countries regularly cooperate they are also among the top competitors for European research funds.

This data clearly demonstrate that the UK is a central cooperation partner for German universities, in research even more than in teaching. At the same time, it becomes clear that other continental European countries such as France, Spain or Italy also play an important role and that German higher education institutions do not solely rely on cooperation partners in the UK.

In the interviews, we can see three different types of cooperation which are described as being of high importance for German universities: 1) Student mobility (with a special emphasis on teacher education for secondary school English teachers), 2) research cooperation, and 3) personal commitments in professional

¹⁷ See: <https://eu.daad.de/die-nationale-agentur/30-jahre-erasmus/zahlen-und-fakten-zu-erasmus/de/51651-austausch-von-studierenden-und-hochschulmitarbeitern/> (11.11.2017)

¹⁸ See: <http://www.researchranking.org/index.php?action=country&country=DE&year=2016> (11.11.2017)

¹⁹ See: https://erc.europa.eu/projects-figures/erc-funded-projects/results?f0=call_year%3A2015&f1=call_year%3A2016&f2=call_year%3A2017 (11.11.2017)

networks which in some cases are also politically active, as the following example illustrates:

I personally know the Scottish Brexit minister Mike Russell ... I work closely with the consulate general, where I also was delegated to for one year from the university ...²⁰ (4, 7).

Concerning the importance of cooperation with the UK compared to cooperation with other countries, the cooperation with the UK is in general described as being of high importance: “regarding the number of students the UK is in the top three of the target countries at the moment...” (2, 17). However, in most of the cases the UK is not described as being one of the two most important partners: “Based on the numbers the UK is an important partner, but they are not the top partner” (5, 8); “It [the UK as a partner] is one among many. It is not so outstanding for us”(6, 5). This is in line with the national-level data that shows that the links of German universities to, for example, France or Spain are as strong, or even stronger, than their links to UK institutions.

Of special importance for German universities is the UK’s role as a target for outgoing students in exchange programmes “Especially with regard to student mobility the anglophone countries are a very important destination” (4, 21) , and here the education of school teachers plays a special role:

...this is something that would be a serious loss also because we have a focus on it. The university has in general many students in teacher training programs (4, 17).

For this type of cooperation it becomes apparent that due to the role of English as a compulsory language in secondary schools and the necessity to have enough well-trained English language teachers it is much more important for German universities to have student exchanges with UK institutions than vice versa. This is especially relevant since some state-level curricula put a focus on English language teachers having some experience of living in a country where English is the native language. Thus, it is also not surprising that there is an imbalance of student exchanges between Germany and the UK, as there are many more German outgoing students than incoming students from the UK:

²⁰ All quotes have been translated from German into English by the authors of this report.

Through this form of student mobility we had around 70 outgoing students in the last three years. Meaning, those were our students who went to the United Kingdom. On the other side, we had 0 incoming students [from the UK] (10, 7).

6.3. Main concerns and opportunities

The main concerns that have been observed in German universities were shared by all the relevant groups of actors, including the university leadership, administrative staff, and academics. Overall, the most pressing concerns have been expressed with regard to existing student exchange programmes. All groups of actors highlighted in the interviews that they are afraid that these forms of cooperation will break down *“our main worry, here in the International Office, is that the cooperation, meaning the ERASMUS partnerships with British universities, will completely disappear”*(11, 21) and that it will be very difficult to provide alternative offers for students but also staff which would be regarded as attractive as the existing ones: *“... our students might not be so flexible to shift to newly generated cooperation partners”* (11, 21). Far less concern is expressed with regard to the research side of cooperation. If it is expressed, the interview partners are concerned that the quality of research will decline due to the end of cooperation:

if the cooperation partner in England or the UK drops out, also in European research partnerships or cooperation, which are important content wise for our discipline, then we will miss the UK, meaning the view of the British is missing (11, 21)

The available funding might decrease *“... if there is no more money, things will fall apart”* (1, 25), or the missing international prestige of the former UK partners might harm their potential to engage in new and successful cooperation:

the UK is obviously a Commonwealth country, ... with an enormous amount of contacts and an outstanding visibility ... the UK will continue to have a strong attraction ... and so we have to see how Europe will position itself towards this (7, 62).

While all participants expect a negative impact on the mobility of German students and staff, it becomes clear that concerning research, German universities are far more relaxed with regard to the influence of Brexit on their cooperation with the UK.

Thus, the question of whether Brexit has a positive or negative influence is discussed very controversially. There are, for example, some informants that see competitive advantages and opportunities for German universities and researchers following Brexit in terms of the distribution of research grants.²¹ This is in line with the previously described relationship between German and UK higher education that is characterised both by cooperation but also competition, especially for European research funding.

In addition, many remarks by informants are linked to an institutional logic that builds on trust in the strength of the academic world and its tradition in transnational cooperation, even outside of supranational structures like the European Union. Here, the interview partners argue that whatever the concrete result of Brexit with regard to higher education will be, cooperation in research will continue one way or the other: “*on the side of research ... I do not have big concerns*” (8, 13).

Additionally, there are some researcher-specific concerns regarding cooperative projects. One example of this is the fear that research processes, results, and their communication could be politically instrumentalised and taken out of context following the intense public debate that Brexit caused:

The topic is also ... content wise a hot issue ... obviously they [the project partner in the UK] are overcautious with everything that they do, how they portray themselves or what they communicate to the public (2, 8).

Such concerns are made with regard to ongoing projects, and in some cases the communication of these projects and their results has become subject to increasing control through the leadership of universities as they fear a public backlash due to the overall heated discussion surrounding Brexit, especially in the UK.

6.4. Plans and strategies

Overall, the data show that all the above mentioned concerns are primarily expressed in informal talk and so far have not been part of formal discussions either within the institutions or with external stakeholders. The main reason for this silence in official debates that is highlighted in the interviews is related to the fact that the

²¹ The empirical data which shows such arguments in more detail will be discussed in section 5 with regard to “current changes and trends” in higher education.

negotiations between the European Union and the UK about the terms of Brexit are ongoing, and that institutions are waiting for the results of these negotiations before taking any further action:

I also would not know what to do at this point in time. This is somewhat difficult. Everyone is waiting; and it [the Brexit negotiations] does not seem to move along (2, 19-20).

At the same time, it is possible to identify a few descriptions of how actors in German universities deal with problems which Brexit is already causing today. In terms of exchange programmes some actors describe a careful reduction of existing programmes, which are not extended when running out because of the uncertainties linked to Brexit:

What is being told at the moment is: This is highly complex, let's do other things instead ... to a certain degree also because we do not have a perspective how long this will be able continue (9, 33).

However, there are also alternative strategies. Other interview partners describe that they try to intensify cooperation in exchange programmes as much as they can before any Brexit decision might take effect. They highlight either that they are hoping that already existing structures will prevail, *"so me personally I expect that the programs can run until 2019, this is how we do it, and we try to build up as much as possible until then, and then we will enter a transitory phase"* (3, 39), or they stress their belief that the more intense existing cooperation is at the moment when Brexit takes effect, the harder it will be politically for Britain to realise a hard Brexit: *"... continue as it is, focus on intensifying existing partnerships, to make it as hard as possible for the political actors to ignore this and nor come to an agreement"* (4, 44).

Moreover, university actors are also starting to develop ideas concerning alternative partners. Here especially, two groups of countries seem to be attractive for developing future exchange programmes that can compensate any Brexit-related losses. Given the importance of the English language for German students in general and those in teacher training programmes aiming to be English teachers in particular, European states with a different mother tongue but a tradition of using English as a second language of instruction in higher education are attractive, such as the Scandinavian countries, *"In this context we already contemplated whether, for example, we should focus more on the Scandinavian countries, which partially have excellent English-language course offerings"* (10, 25), as well as international

partners that are outside the European Union but have English as their mother tongue like the USA, Canada or Australia, are increasingly in the focus when looking for new exchange partners: *“we try to see ... how to react mainly focusing on Canada, the USA, and that we try to become more attractive for them”* (4, 31).²²

While ideas about how to react to Brexit-related problems in terms of student and staff mobility seem to be quite precise, there is no clear strategy on the research side. Informants mainly argued that they will go on collaborating like before *“to start as many projects as possible, because we have confirmations that everything that has been applied for and accepted before day X will for sure be financed [by the EU]”* (5, 14) with the limitation that they may not give the lead of new projects to UK universities: *“I could imagine that we might ... in the future have to accept the burden to coordinate projects, which in the past we have happily left to our British partners”* (5, 20). There are also no new strategies described in the interviews concerning the recruitment of staff, even though interview partners are expecting changes with regard to this.

6.5. Brexit in relation to concurrent changes and trends in higher education

As pointed out above, when discussing cooperation with UK universities the German interview partners have big concerns with regard to issues of student and staff mobility issues but they voice only a few concerns in relation to research. UK partners are in general regarded to be important partners in research, *“with regard to research I am not worried at all, because our research activities and partnerships are creating an umbrella above [the Brexit negotiations]”* (7, 29), and the strong transnational ties in the academic world (Meyer et al. 2007) are expected to be stronger than any impact Brexit might have in the long run: *“If politicians decide to limit internationalisation in academia, academics resist and do the opposite”* (12,18). Hence, the interview partners expect that in the long run the intense research cooperation will continue.

However, even if most of the interview partners are optimistic concerning their ability to continue existing cooperation in general, they do expect changes with regard to

²² Other countries of strategic relevance mentioned in the interviews are Malta and Ireland: *“We have Malta, we have Ireland [as English language countries]”* (4, 21).

the funding of European research projects. Competition for funding is a prominent theme in the academic system and has been intensively discussed even before Brexit (Hasse & Krücken 2013). With Brexit on the horizon, there are sequences in the interviews including “quiet opportunism”. People don’t want to bring it forward too offensively, because they would prefer the UK within the EU. However, when quiet opportunism occurs, interview partners argue that while they certainly don’t want Brexit, they expect some advantages for German universities in competition when it comes. There are only very few informants that expect that a greater competition between the UK and Europe as two divided research areas can bring German universities into serious difficulties. To a much greater extent informants refer to positive effects on the competitiveness of German universities when considering their ability to attract research funding:

Statistically it is like this. Sure, the UK is a net winner [in European research funding], they will stop contributing to the overall amount of funding, but as they extracted more than they contributed, this leaves a Delta which obviously will be distributed among the other countries (1, 25)

As a consequence, some interview partners see German researchers more often in the leading position of future research projects:

And especially Germany coordinates, for example, only very few projects, this is something that people complain about. I could imagine that we might ... in the future have to coordinate more projects ... But that would not be something negative, but rather something positive (5, 20)

Another major trend is the internationalisation of the university sector. All universities at which we conducted interviews have articulated goals for intensifying cooperation with selected universities all over the world. In general, the informants do not see it as a necessity to change these strategies, except that they expect a drift of their efforts away from the UK and towards other countries, especially with regard to student and staff mobility (as demonstrated in section 6.4).

Following our observations, we cannot identify radical changes concerning the ideas and visions for the future of German higher education. Even if there are concerns, for example with regard to mobility or research, future ideas are more expressed as ideas of adaptations and modifications of the ongoing practice and there are no

references to radical changes. Hence, this can be interpreted as German universities appearing comparably relaxed towards the future and Brexit-related changes instead of being seriously concerned: *“for the university as a whole I think, this [Brexit] will only have a very limited effect, if we consider only fiscal aspects”* (5,10).

Analysing the interviews for sequences in which the interview partners associate Brexit with current changes on the national or regional level we can find only very few references. With regard to national politics it becomes clear that the discussion on the rise of social inequalities is discussed as one cause for Brexit, which also gives rise to an anti-European movement in Germany:

Because we can observe some Brexit-like tendencies. With the French election people have been worried, in the Netherlands people have been worried, in Germany we have a party that now promotes this [anti-European sentiment] (1, 42).

With regard to the field of academia, rising inequalities also play a role with regard to the reputation and credibility of science within anti-European movements. In a different perspective on social inequalities the German university landscape and changes like Brexit accelerate already existing diversification developments that favour the rise of strong, high reputational elite universities that can also absorb the potential fallout of Brexit on their main activities more easily, somewhat to the disadvantage of smaller and middle-sized universities that might experience more challenges: *“I think there is no doubt that this will rather hit the middle-sized [universities]”* (1, 36). Besides inequalities, interview partners also relate the debate on refugees and its influence on national elections to Brexit:

People become more sceptical towards migrants in many European countries and also in Germany. With Brexit this problem could grow and make European countries less attractive and also their universities (12, 32).

6.6. Future perspectives

When looking at the future post-Brexit attractiveness of the European Research Area one can separate two different perspectives. The first highlights the importance of research. Within this perspective, as already discussed above, most of our interview partners do not have overwhelming concerns and are confident that the EU remains

an attractive research area even after Brexit. With regard to the quality of research we can observe that it depends very much on an individual's perception as to whether interview partners are afraid that an absence of the UK will have a negative impact on research quality. At the same time, all interview partners agreed that in those fields in which the UK plays a central role in research cooperation with Germany, cooperation will continue. They even assume from a national point of view that the opportunities of German researches in competition for funding might slightly improve if researchers at UK universities cannot compete for the same funding anymore. Hence, this suggests a perspective of confidence on the side of the German interview partners.

The second perspective is somewhat broader and relates to the reputational influence that Brexit might have on Europe and the European Union as regional as well as political constructs. Here, interview partners are more pessimistic. Most of them highlight that they are afraid that in the long run the competitiveness of Europe will decline due to Brexit:

a friend of mine is working at a German embassy in [country in Africa] and she is saying that the people there have changed their view of Europe ... they see it as a disintegration ... meaning it makes it less attractive to come to Europe (1, 44).

This decline will not happen in relation to Britain but rather in relation to other world regions. With regard to incoming researchers and students, the USA and Canada might profit from Brexit as they become more attractive while at the same time the attractiveness of European states might decline: *"All in all, I think it is a threatening scenario, especially in the long-run, because we will be less attractive"* (5,31).

With regard to the concrete results of the Brexit negotiations with regard to higher education, and thus the continued existence of structures of European integration in this area, the interview partners expect that there will be continuity, but most probably without UK participation. The opinions of the informants are aligned on a continuum that spans two positions. Some hope that some form of association of the UK will be possible, which would keep them included in cooperation programmes in higher education:

countries like Switzerland, or Norway are also in the cooperation without any problem, and ... because this is simply in the mutual interest ... that the UK has some form of associated status (8, 13)

Most interview partners would appreciate such an outcome. On the other side of the continuum some fear that the European Union has to send a strong political message demonstrating that countries who want to leave will be excluded from all areas of cooperation, which would mean that the UK's participation also in the academic cooperation programmes would end: *"I think that is something, that I think from the side of Brussels is non-negotiable ... that there will be such a form of association [for the UK]"* (5, 28). This second perspective is quite strong in the interviews, and the informants offer some vague ideas, mainly in the form of hopes, about who will supply the missing funds once the European Union stops supporting cooperation with the UK. We observed four ideas for possible solutions, each of which occurred with the same frequency: (1) Bilateral agreements on the institutional level will replace the European agreements, (2) bilateral treaties between countries will replace the European agreements, (3) the government of the UK will supply additional funding to keep up cooperation with the continent (this is seen especially likely with regard to research cooperation due to the strong interest of the government to keep this exchange alive), and (4) the German federal government or the German states will substitute European funding to foster cooperation with the UK (this is seen as especially likely with regard to student mobility and exchange programmes).

However, we can also clearly identify the rise of ideas that call for intensifying cooperation with other countries or regions instead of focusing on preserving existing programmes with UK universities. As mentioned above, especially European countries which have a long track record as well as a broad range of courses taught in English, and that are successful in attracting European research funding, such as the Netherlands or the Scandinavian countries, offer good alternatives. On a more global scale, informants identified the USA, Canada, Australia, and New Zealand as likely beneficiaries of Brexit-related shifts.

6.7. Transversal questions

Concerning the gain or loss of UK staff and students following Brexit the informants offered many different perspectives in the interviews. Many possible scenarios are discussed: from Germany losing staff and students to the UK to German academics coming back from the UK to Germany, and from losing UK students and staff to attracting students and especially staff from the UK to Germany. Besides this variety

of perspectives the most frequently expressed hope is to use Brexit as a window of opportunity to attract UK staff and their expertise to German universities or other research institution:

... we would be very happy about every academic, who would want to come to [name of the city], maybe even with an ERC-Grant (5, 30)

academically I think that Brexit will be mainly a problem for our colleagues in the UK, and if you look at it egoistically, this can be an advantage for us. We are negotiating with an excellent researcher from Cambridge at the moment, whom we would like to attract; and in these talks this is obviously an issue (1, 14).

However, even if this hope plays a big role in the interviews, the interviews with university leaderships offered no concrete marketing or recruitment strategies to attract academics from the UK.

Concerning advocacy and lobbying activities of German universities with regard to Brexit we find some personal engagement of academic staff in shared networks with UK researchers in which they do lobbying work and correspond with political actors. These networks often build on long lasting cooperation of specific academics that have been working with UK colleagues and often also in the UK long before Brexit was on the horizon. While German researchers engage actively in these networks, there have been no comprehensive remarks from the side of institutional leadership referring to universities as actors that could create political pressure in favour of a certain outcome of the Brexit negotiations. Only one member of a university leadership referred to the statement issued by all umbrella organisations of German universities in which they expressed their opposition towards Brexit. In his view, this is a sign of the undesirability of this event throughout the sector. However, the general observation of a lack of comprehensive strategies to create political pressure might be limited by the small sample size that we managed to include in this study. At the same time, two of the participating universities are members of key national university networks that bring together many prominent German universities, and neither of the leaderships reported any activity also on the side of the university network.

In the interviews we can observe a high level of insecurity concerning the possible results of the Brexit negotiations. The interview partners are either speculating about

the ability of the political actors to recognise the strong academic ties between the UK and Europe and therefore expect a quick consensus on new cooperative structures in academia, *“... as this is in the common interest I am convinced that this will be taken care of very fast in the negotiations”* (8,13), or they are expecting that the European Union is willing to implement a hard separation with the UK in all areas including higher education in order to deter other countries from implementing similar processes in the future: *“That for sure has a signalling effect, which needs to be politically reflected”* (7, 42).

6.8. Country-specific issues

The German informants reveal some differences between disciplines with regard to the perception of Brexit. The education of future English teachers is a particularly important aspect of education at German universities: *“I already mentioned a few points, where we will get some problems [due to Brexit], education of teachers for example, but those are selective issues”* (1, 11). In this field of study, as well as in the non-teacher education discipline English Studies, the concerns are especially high both regarding research and student mobility: *“I am very much of the opinion that we need to keep contacts to the Anglophone world; because this is very important for research at least for us in English or American Studies”* (7, 31). One reason for this is that in these departments and study programmes, ties between German and UK universities are especially intensive and have a very long history. However, also in this area, the informants are more optimistic in terms of research cooperation than regarding staff or student mobility. While this link seems to be very obvious and plays a big role in the interviews, there are also less obvious assumptions on the special importance of other disciplines for the potential problems caused by Brexit, which we cannot investigate in detail because of the limited number of cases. One professor of mathematics, for example, argued that

... good mathematics is made by single persons at their writing desk. We cooperate with those partners, which are the best for finding a solution on a very specific question and we can continue like before, because we are less dependent on third party funding (13, 48).

Concerning the different archetypes of universities that we sampled for our study the data show that, due to the higher concerns regarding student mobility, public

universities with a strong British Studies department and a focus on training English teachers are more concerned about future cooperation, while research universities without that focus or technical universities tend to be less concerned.

As we have highlighted already above, one of the common solutions to Brexit-related problems is to intensify the relations with the USA: *“But we also have excellent contacts in the USA, Australia, Canada etc.”* (7, 24). Furthermore, some interview partners also noticed a growing attractiveness of German universities for partners abroad: *“In the US, Australia, and New Zealand we notice an increasing interest in us as a partner and I think this is also because of Brexit”* (14, 25). This is on one hand regarded as one possible strategy in order to compensate for losses, especially with regard to student exchange programmes, but on the other hand it is also mentioned as one option for UK universities to reorient themselves after Brexit: *“But I am convinced that within the UK it will be recognised that it is necessary to cooperate internationally and on the EU-level”* (6, 17).

Literature:

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7. Hungary: Higher education institutions' response to the prospect of Brexit: 'Wait and see'. Kata Orosz, Norbert Sabic and Emőke Kilin

Kata Orosz and Norbert Sabic, Central European University

Emőke Kilin, independent researcher

7.1. Overview of the Research

The study was conducted between August and November 2017. Data was collected mainly through semi-structured interviews and with the help of an online questionnaire that included open-ended questions.

The interview protocol of the semi-structured interviews was based on the interview protocol developed by Marginson and colleagues, and was adapted to better reflect the realities of the Hungarian higher education context. The online questionnaire was an abbreviated version of the adapted interview protocol.

At least two members of the research team were present during each interview. Interviews were recorded but not transcribed due to lack of time and resources. Interviewers prepared detailed interview memos immediately after each interview, and discussed the key ideas that emerged during the interviews.

Members of the research team met multiple times during and after data collection to collectively reflect on the interview memos and the responses submitted through the online questionnaire, and discuss emerging themes. One research team member prepared a draft of the findings, and the other two research team members provided feedback on this initial draft to increase the validity of findings.

7.1.1. Interviews

We contacted a total of 13 individuals via email in September and October with requests for interviews. We promised to prospective interviewees that their names, and the names of the institutions where they work, will not be revealed in the reporting of findings. If the individuals did not respond to our email within a week, we called them on their office number to follow up on our request.

Nine of the 13 individuals whom we contacted work at three Hungarian higher education institutions – eight of them in various leadership positions, and one as a faculty member. In addition, four individuals with expertise in Hungarian higher education and international collaborations were also contacted.

Ultimately, we were able to interview only four of the 13 individuals whom we contacted: two individuals with leadership positions at two Hungarian universities, and two experts. Three individuals did not respond to our request for interview at all, five individuals declined to participate, and one individual agreed to participate in the study but was unable to schedule a time to meet with us during the period of data collection, which concluded on 1 December 2017.

The four individuals we interviewed included:

- An expert of Hungarian higher education and international partnerships in higher education, who works for the Hungarian Rectors' Conference (HRC).
- An expert of international student mobility, who works for the Tempus Public Foundation (TPF). TPF is a Hungarian quasi-governmental organisation that administers a variety of international student and staff mobility programmes.
- The Vice Rector of a large university located in Budapest.
- The Director of the International Relations Office of a large university located in one of the major Hungarian cities.

The two universities where our interviewees work were purposefully selected due to their size, their high level of research activity, and the visibility of their international engagement. We contacted other individuals at these two universities for interviews (including the Rectors), but they declined to participate.

Three of the four interviews were recorded with the interviewees' permission; the fourth person (an expert) did not consent to be recorded. Interviews were not transcribed, but members of the research team prepared detailed memos of each interview immediately after conducting it.

7.1.2. Online questionnaire

When we reached out to the expert working at the HRC for an interview, the person showed great interest in our study, and offered to send out an abbreviated version of our interview protocol to members of the HRC. We accepted the offer, and created an online questionnaire based on the protocol used for the semi-structured interviews. The questionnaire included five open-ended questions; responses were

requested on grounds of confidentiality. The responses were returned directly to members of the research team, not to the HRC. A link to the online questionnaire was sent out from the HRC email account on 14 October; the last response was received on 10 November.

A total of 15 Hungarian higher education institutions responded to our survey. Out of the 15 institutions, nine are located in Budapest and six in other Hungarian cities; 13 of them are universities and two are colleges; 10 of them are “maintained” by the state, three of them are private institutions, and two of them are “maintained” by a church.²³ There are more than 60 higher education institutions in Hungary, which means that about 25 per cent of all Hungarian higher education institutions responded to our survey.²⁴

7.1.3. Analysis

Members of the research team independently read the interview memos and the responses to the open-ended survey items. Members of the research team discussed the interview and questionnaire data multiple times during data collection to identify emerging themes. Information from publicly available data sources was also collected and used for data triangulation.

7.1.4. Limitations

The relatively low response rate to requests for interviews and to the online questionnaire (approximately 25 per cent for both) might indicate that Hungarian higher education institutions do not perceive the issue of Brexit as having high importance or relevance for their activities. Alternatively, the low response rate might be due to the fact that the principal investigator of the study and one of the research team members are affiliated with Central European University (CEU). Some individuals may have been discouraged from participating in the study due to the political controversy that has been surrounding CEU in the past couple of months.

²³ The two universities where we conducted interviews did not respond to the online survey, which means that the study findings reflect perspectives from a total of 17 higher education institutions operating in Hungary.

²⁴ *Hungarian higher education 2015*. Budapest: Hungarian Rectors' Conference. Retrieved from: http://www.mrk.hu/wp-content/themes/mrk/documents/hungarian_higher_education_2015.pdf

7.2. Present Situation

7.2.1. Types of international partnerships

Hungarian HEIs in our study sample reported that the most common form of partnership they have with universities in other countries is a bilateral agreement that is aimed at promoting the mobility of students and the mobility of faculty members. Student mobility typically entailed academic and credit mobility, although some Hungarian HEIs also reported that their students participate in internships and traineeships at universities abroad. Only one Hungarian HEI reported that they have a partnership that promotes the mobility of university staff.

Respondents mentioned Erasmus, Erasmus+, CEEPUS, and EGT/Norwegian Foundation as programmes that provide funding for the bilateral student and faculty exchanges that they participate in. One of the church-maintained HEIs in our study sample mentioned that the church also provides funding for scholarships that promote the outgoing mobility of their students. Two scholarship programmes funded by the Hungarian state – the Campus Mundi and the Stipendium Hungaricum scholarship programmes – were also mentioned by several respondents as programmes that promote both incoming and outgoing student mobility at Hungarian HEIs.

Collaborative research projects were also frequently mentioned by Hungarian HEIs in our study sample, although not as frequently as student and faculty mobility. All of our interviewees (but only one of the 15 respondents to our online survey) mentioned the EU's Horizon 2020 scheme as one that promotes research collaboration between Hungarian HEIs and HEIs in other countries.

Two institutions indicated that they have a partnership that involves joint teaching and/or a joint degree; one such partnership was realised with an institutional partner in the UK, and another one in the US. Hungarian HEIs with a special mission – e.g. universities of arts, dance, and theatre – mentioned joint performances, exhibits, and professional exchanges with partner institutions.

7.2.2. The geographical distribution of the international partners

Almost all participants in our study reported that the universities with which their institutions have partnerships are located predominantly in the European Union. Germany in particular was mentioned by several respondents as the country where many of their institutional partners are located. One of the interviewees referred to

Germany as the country where their university has several “strategic” partnerships. The same interviewee also attributed the strength of partnerships with German universities to their long history of collaboration.

Another respondent also emphasised the role of historic connections by writing, “our university has the strongest ties with former countries of the Austro-Hungarian Monarchy (Austria, the Czech Republic, Slovakia, the former Yugoslav states.)” Several other respondents mentioned having partnerships in these Central European countries, too. Some HEIs reported partnerships with universities in Eastern Europe, including Albania, Bosnia-Herzegovina, Bulgaria, Kosovo, Macedonia, Moldova, Serbia, and Ukraine. Non-European countries that were mentioned by respondents include China, Turkey, and Russia. Three respondents mentioned having partner institutions in the US.

7.2.3. Hungary – UK partnerships

The number of Hungarian tertiary level students who has gone to study in the UK has increased in the recent past. According to the OECD, the number of Hungarian students enrolled at higher education institutions in the UK was 1,213 in 2013, 1,461 in 2014, and 1,681 in 2015.²⁵ The number of incoming and outgoing students was uneven between the UK and Hungary. In 2015, the UK received 1,681 tertiary level students from Hungary, which made the UK the third most popular destination for Hungarian students after Austria and Germany. Hungary hosted only 438 tertiary level students from the UK in the same year.²⁶

The CORDIS database, which contains information about the Horizon 2020 research project funded by the EU, suggests that there are a large number of research projects on which universities from the UK and Hungary collaborate. In the period of 2014-2020, the total number of research projects that were funded through the H2020 scheme is 14,064, from which there are 259 projects that have both British and Hungarian partners. The total number of H2020 projects with Hungarian

²⁵ OECD Stat, *International student mobility – Tertiary mobile enrollment, total number*. Accessed at <http://stats.oecd.org/index.aspx?queryid=79651#>

²⁶ OECD Stat, *International student mobility – Tertiary mobile enrollment, total number*. Accessed at <http://stats.oecd.org/index.aspx?queryid=79651#>

partners is 463.²⁷ These statistics show that more than half of the projects with Hungarian participation have UK collaborators as well.²⁸

Results from our study also confirm that many Hungarian higher education institutions (HEIs) have some form of partnership with universities from the UK. Both Hungarian universities where we conducted interviews have a number of institutional partnerships: one of them has institutional partnerships with 21 different universities from the UK; while the other one has 14 such partnerships. Among those 15 Hungarian HEIs who responded to our online survey, 11 also indicated that they had partnerships with one or more universities from the UK. Four HEIs that responded to our online survey stated that they currently do not have any kind of collaboration or partnership with HEIs from the UK.

The 17 Hungarian universities in our study sample indicated that they had some form of partnership with the following 47 universities from the UK:

- Aberystwyth University
- Anglia Ruskin University
- Buckinghamshire New University
- Canterbury Christ Church University
- Cardiff University ^{RG}
- City University London
- Coventry University
- Glyndwr University
- Keele University
- Leeds Metropolitan University
- Liverpool John Moores University
- London School of Economics ^{RG}
- London South Bank University
- Loughborough University
- Middlesex University
- Napier University, Edinburgh
- Newcastle University ^{RG}

²⁷ EU Open Data Portal, *CORDIS - EU research projects under Horizon 2020 (2014-2020)*. Accessed at <https://data.europa.eu/euodp/en/data/dataset/cordisH2020projects>

²⁸ A total of 17 Hungarian higher education institutions (or approx. one fourth of all Hungarian higher education institutions) have research projects that received funding through the H2020 scheme in the funding period of 2014-2020.

- Nottingham Trent University
- Oxford Brookes University
- Queen Margaret University
- Roehampton University
- Royal Holloway and Bedford New College
- Scotland's Rural College
- Sheffield Hallam University
- Stranmillis College Belfast
- University College London ^{RG}
- University of Cranfield
- University of Birmingham ^{RG}
- University of Brighton
- University of Bristol ^{RG}
- University of Edinburgh ^{RG}
- University of Exeter ^{RG}
- University of Glasgow ^{RG}
- University of Hertfordshire
- University of Hull
- University of Leeds ^{RG}
- University of Plymouth
- University of Portsmouth
- University of Salford
- University of Sheffield ^{RG}
- University of Stirling
- University of Sunderland
- University of Ulster
- University of Warwick ^{RG}
- University of West London
- University of Winchester
- University of Wolverhampton

A number of UK universities on the list (underlined) have partnerships with several Hungarian HEIs. The list suggests that while some Hungarian universities have partnerships with Russell Group universities (indicated with ^{RG} on the list), the large majority of institutional partners that Hungarian HEIs have do not belong in this group of research-intensive UK universities.

The relatively high number of Hungarian – UK “partnerships” in our study sample may be deceptive. Three of our four interviewees emphasised that while the list of partner institutions from the UK may be impressively long at some Hungarian HEIs, these partnerships typically only consist of a memorandum of understanding, which does not correspond to any actual mobility or collaborative action between the “partner” institutions. One of the experts we interviewed described a “boom” in international partnerships in the late 1990s and early 2000s in Hungary, during which Hungarian higher education institutions “signed MoUs left and right”, but emphasised that many of these MoUs never resulted in actual exchange or collaborative activity.

7.3. Main Concerns and Opportunities

The prospect of Brexit triggered varied responses among our study participants. These included the expectations of: 1) immediate, tangible negative impact; 2) potentially negative impact in the future; 3) business as usual; and 4) potentially positive impact in certain areas of collaboration in the future.

7.3.1. Immediate, tangible negative impact

Two institutions in our study sample recently experienced a potential partnership agreement with a UK university falling through; the prospective partners from the UK gave Brexit as the reason for ending talks about collaboration. The respondents from one of these institutions wrote: “*Since the **establishment of a new partnership fell through** because of the Brexit, it is negatively affecting us.*”

7.3.2. Potentially negative impact in the future

A number of respondents to our online survey expressed concern about a decline in the outgoing mobility of students and staff at Hungarian universities; some thought that Brexit might **negatively impact academic and training mobility schemes**. These respondents anticipated declines in mobility as a result of funding cuts to multilateral mobility schemes (especially Erasmus +), or as a result of visa requirements for EU students and faculty aiming to go to UK universities.

One respondent noted that Hungarian university **students may be discouraged from participating in exchange programmes with the UK** if they need a visa to study there. One of our interviewees speculated that the **number of Hungarian high school graduates who apply to universities in the UK might decline** in the

aftermath of exit. The interviewee shared an anecdote: after the Brexit vote, the high school where this person's child studies decided to end an intensive English course that was aimed at preparing students for the English language test required for application to UK universities.

A few respondents noted that it would **negatively impact university research cooperation** if a "hard Brexit" would cut or eliminate funding for existing programmes, such as Horizon 2020. For example, one respondent thought that the "scope of research collaborations" would shrink as the result of Brexit, because Brexit might result in a decrease of research funds and in fewer research collaborations between UK and Hungarian universities. (None of the respondents who expressed concern about the availability of funding for mobility and joint research considered the scenario of a "hard Brexit" likely.)

One respondent noted that while they didn't anticipate Brexit to have a negative impact on existing partnerships, they thought that **Brexit might make the establishment of new partnerships more difficult** in the future.

Some of our interviewees thought that the **financial and administrative burden** associated with establishing and operating international exchange programmes or international research projects might increase, once the UK becomes a "third country" / non-EU country. However, these interviewees also thought that it will not substantially hinder collaboration between the UK and other EU countries, since legislation and regulations already exist on how to handle "third country" participation in multilateral mobility schemes such as Erasmus +. One interviewee thought that the complications resulting from the "third country" status of the UK will place a greater financial and administrative burden on UK universities, not on their continental partners.

One of our interviewees, who works at a research university, thought that Brexit has the potential to have a "*serious negative impact*" on the international partnership network of Hungarian and other Central and Eastern European universities. This university leader thought that if Brexit were to reduce the number of partnerships between UK and Hungarian universities, it would mean that Hungarian universities would lose access to the "*knowledge, managerial attitude, and social capital*" of their UK partners. However, this interviewee didn't consider this scenario of "isolation" likely.

7.3.3. Business as usual

Multiple study participants expressed the belief that there will be **no negative consequences of Brexit on higher education cooperation**. One representative quote is:

We don't think that Brexit will have any substantial impact on university cooperation. We think that the UK universities are not thrilled with the news of Brexit and they are working hard to ensure that they can remain part of the European Higher Education Area.

Another respondent wrote: “*We do not think it is likely that UK universities will become ‘isolated’ from the continent.*”

A number of respondents thought that Brexit will not impact existing partnerships, especially ones that are based on the personal and professional network of university faculty.

One of our interviewees thought that Hungarian HEIs are “not fearing” the impact of Brexit on their international partnerships, because **their relationships with UK universities are limited to begin with**. This expert explained that in the early 2000s, universities in the UK started becoming more selective about their international partners, and terminated many of their existing partnerships with universities in continental Europe. Hungarian universities were also the “victims” of this process, which resulted in few active institutional partnerships in terms of student and staff mobility between Hungarian and UK institutions. Hungarian HEIs have found it extremely difficult to establish partnerships for student and staff exchange with UK universities ever since.

The view that the “**logic of the market**” will continue to inform UK universities’ decisions about whom they will partner with was also expressed by one of the experts we interviewed. A similar view was expressed by a respondent to our online survey. The respondent wrote:

We do not think that Brexit will have negative consequences for the cooperation between universities in our country and the UK. We are basing this assessment on the fact that the UK has been, for the most part, organising its higher education sector on the basis of market principles, and education and especially higher education has been a lucrative and successful sector of their economy.

7.3.4. Potentially positive impact in certain areas

One of our interviewees thought that Brexit may pose some opportunities for Hungarian higher education institutions, for example, by being able to **capture more of the Horizon 2020 funds**. However, this interviewee also noted that other European countries are better positioned to benefit from such an opportunity:

Countries like the Netherlands, or Belgium have been hustling to position themselves on the international higher education market for a long time. If the UK leaves the EU, [these countries] will hustle even harder. They will have a strategic advantage.

A different interviewee thought that Brexit might trigger a new wave of **re-assessing international partnerships at UK universities**. This interviewee thought that Hungarian universities could potentially benefit from this, as there may be new opportunities to forge partnerships with UK universities. This view was shared by a third interviewee, who also thought that UK universities might become more open to establishing new partnerships with Hungarian (and other continental European universities) in an effort to ensure that they remain culturally integrated in Europe.

In addition to this range of negative to neutral to cautiously positive expectations, a few respondents to the online survey opined that it was “too early to tell” or that they “could not assess” what the outcome of Brexit will be vis-à-vis higher education partnerships.

7.4. Plans and strategies to deal with problems

Some study participants at the institutional level thought that there is no need for a plan in anticipation of Brexit, as they did not think Brexit will impact their university's international partnerships in any way. Other study participants at the institutional level mentioned the following strategies in anticipation of Brexit:

- Wait and see; respond to any issues as they emerge;
- Nurture existing bilateral relationships with UK universities;
- Seek new partners for collaborative research with universities in the UK and elsewhere;
- Seek new funding sources to support the mobility of their staff and students;
- Offer more of their own programmes in English.

On the national level, there is little action (or even discussion) of Brexit vis-à-vis higher education. According to the expert we interviewed, the Hungarian Rectors' Conference has not discussed this issue at a plenary meeting. The president of the HRC, along with higher education leaders from other European countries, signed an open letter that calls for "urgent Brexit clarification" vis-à-vis higher education. The open letter was published on the website of Universities UK.²⁹

²⁹ *Europe's university leaders call for urgent Brexit clarification*, October 25, 2017. Retrieved from <http://www.universitiesuk.ac.uk/news/Pages/Europe%E2%80%99s-University-Leaders-Call-for-Urgent-Brexit-Clarification.aspx>

8. Republic of Ireland: Brexit and Ireland: A view from the ‘front line’. Andrew Gibson and Ellen Hazelkorn

Andrew Gibson and Ellen Hazelkorn, Higher Education Policy Research Unit, Dublin Institute of Technology

8.1. Overview of research conducted

11 face-to-face semi-structured interviews were undertaken with 12 participants (three females and nine males), between October and November 2017. They included: three academic staff at PI level, from both AHSS and STEM; four members of senior management from two Higher Education Institutions (HEIs); and five policymakers and other sectoral stakeholders who have higher education as either a part or the whole of their remit. Some of those involved in management also mentioned their past or parallel roles as researchers in responding to questions.

All interviews were conducted by Andrew Gibson and Ellen Hazelkorn; they were recorded but not transcribed.

This report also draws on *Brexit and Irish Higher Education and Research: Challenges and Opportunities*, a report prepared for the Higher Education Authority, and other reports.³⁰

³⁰ Hazelkorn, E. (2016) *Brexit and Irish Higher Education and Research: Challenges and Opportunities*, Dublin: Higher Education Authority, <http://hea.ie/assets/uploads/2017/06/Brexit-And-Irish-Higher-Education-And-Research-Challenges-And-Opportunities.pdf>; see also Barrett, A. et al. (2015) *Scoping the Possible Economic Implications of Brexit on Ireland*, Dublin: The Economic and Social Research Institute (ESRI), <https://www.esri.ie/pubs/RS48.pdf>; British-Irish Chamber of Commerce (BICC) (2017) *Brexit: The Challenges and Opportunities for the Higher Education and Research Sector*, Dublin: BICC, <http://www.britishirishchamber.com/wp-content/uploads/2017/09/Higher-Education-and-Research-Policy-Paper-web-Sep2017.pdf>; for more general statistics see Central Statistics Office (CSO) (2016) *Brexit: Ireland and the UK in Numbers*, Dublin: CSO, <http://www.cso.ie/en/media/csoie/releasespublications/documents/statisticalpublications/Brexit.pdf>; Royal Irish Academy (RIA) (2017) *Royal Irish Academy Brexit Taskforce Survey Results: Impacts and Opportunities for Higher Education and Research on the Island of Ireland post Brexit*, Dublin: RIA, https://www.ria.ie/sites/default/files/ria_brexit_taskforce_survey_results_report_final_0.pdf. The Royal Irish Academy and the UK's Royal Academy has also produced a joint series of briefing papers available here: <https://www.ria.ie/news/policy-and-international-relations/ria-british-academy-brexit-briefing-paper-series>.

8.2. Present situation: Significance of cooperation with the UK at both national and institutional level; to include perceptions and available data

8.2.1. Significance of cooperation with the UK

Interviewees suggested that while Brexit is likely to affect multilateral relationships (in terms of the EU), bilateral relationships between the Republic of Ireland (henceforth, Ireland) and the UK will endure. Ireland and the United Kingdom occupy a shared higher education and research space, with a shared language and history. There is a common higher education and research culture, and broadly similar organisational and academic structure. This has facilitated significant academic mobility and cooperation – across all levels – over the years as well as providing the basis for post-graduate, post-doctoral and professional career pathways. Indeed, the UK has been an obvious environment for first destination opportunity, as well as for employment during various cycles of Irish economic crisis and high unemployment over the decades. Hence, the very large Irish community based in the UK, with a 2015 United Nations estimate putting Ireland as the origin of the fourth largest immigrant group in the UK (after India, Poland, and Pakistan) with upwards of 503,000 Irish-born migrants.³¹ It's worth noting that the position of Irish citizens has been and will remain protected under “the Common Travel Area arrangements, and Irish citizens residing in the UK will not need to apply for settled status to protect their entitlements”; this has been the situation since the 1920s.³²

Both countries share a common Quality Assurance (QA) and peer-review culture, with continual exchange of personnel with respect to programme accreditation and research assessment, etc. There is a history of expertise and policy sharing and learning across higher education and research organisations, and inter alia: The Quality Assurance Agency for Higher Education (QAA), Higher Education Funding Council for England (HEFCE) and the UK Higher Education Academy (HEA). Hence, co-operation manifests itself in various ways. In terms of education and research, there is continual traffic across the border with Northern Ireland (NI) and the Irish

³¹ This is equivalent to over 10% of Ireland's population living in Ireland. See table 16: https://www.un.org/en/development/desa/population/migration/data/estimates2/data/UN_MigrantStock_ByOriginAndDestination_2015.xlsx.

³² “Common Travel Area”, http://www.citizensinformation.ie/en/moving_country/moving_abroad/freedom_of_movement_within_the_eu/common_travel_area_between_ireland_and_the_uk.html

Sea in both directions, as peer-reviewers for, inter alia, quality assurance, programmatic reviews, examinations and course boards, as well as PhD vivas. Irish researchers look to the UK for research partnerships and opportunities, with researchers in Ireland receiving funding from, inter alia, the Wellcome Trust and ESRC, and vice versa in terms of UK researchers' involvement in Science Foundation Ireland (SFI) and other research centres.

There are also research linkages with Northern Ireland, through the Special EU Programmes Body (SEUPB) and the North-South Council via INTERREG programmes. In addition, there are other cross-border and research linkages between researchers, SMEs, and local authorities, such as the Ireland Wales programme.³³

Engagement is also strong at EU level between national delegates and national contact points for European projects. Despite some differences in emphasis and strategy, Ireland and the UK have a good working relationship on EU level committees as well as research projects; for example, negotiating new programmes, such as H2020. This was also noted as the strongest and most regular area of cooperation and contact in terms of national policymakers in the UK and Ireland.

Undergraduate student mobility is primarily via Erasmus. In 2016, there were almost 12,000 Irish students (undergraduate and research students) studying in the UK, down from over 13,000 in 2012-2013 and approximately 2,000 in Northern Ireland. Ireland is the seventh largest source country studying in the UK. The fall in the number of students may be due to the rising tuition level in the UK, although other factors, including the exchange rate, may explain the reduction of students in NI and Scotland where such fees do not apply. Conversely, there are currently 2,339 full-time UK students studying in Ireland.

Academic relationships are strongest with "mainland" UK, but also a factor of the scale of the latter's education and research enterprise. In contrast, as one HEI suggested, the relationship with NI is more "sentimental or principled" despite the closeness of the border and easier access. The former is evidenced by the level of co-authorship (followed by the US and other EU countries), followed by research projects (followed by other EU countries). Despite this strong relationship, there are differences across the system; leadership at the other HEIs interviewed noted that

³³ See <https://www.seupb.eu/>; <http://www.interreg4c.eu/>; <http://irelandwales.eu/>.

while some institutions had deep connections with the Anglophone world, others were more connected with European research networks.

These close historic, linguistic, cultural and political relationships place Ireland in a unique situation vis-à-vis Brexit, for which many people see Ireland as being on the front line of negotiations. On the other hand, Ireland is a committed member of the EU and there is no likelihood it will follow the UK out of the EU. Thus, Brexit is a constant political, public and media topic, with every nuance being dissected.

8.2.2. Background statistics

Erasmus staff and student numbers from/to the UK

Ireland currently sends over 3,000 students on study and work abroad schemes each year. In contrast, Ireland receives over 7,000 students annually. Of this number, approximately 300 UK students come to Ireland annually, while approximately over 400 Irish students travel to the UK. Overall, there is an imbalance in the number of Irish Erasmus students outgoing vs. the number of EU students in-coming to Ireland, by a ratio of over 2:1.³⁴

Staff exchange numbers in Erasmus remain rather smaller, with 43 staff travelling to the UK, making it Ireland's largest destination country, receiving c.15 per cent of Ireland's total outward academic mobility.³⁵

Other mobile students from the UK

Northern Ireland students make up a relatively small number of the total international enrolments in Ireland (though they are not, as above, counted as such), with 955 full-time students in 2016-17.³⁶ That said, they represent a significant proportion of students coming from the UK as a whole.

³⁴ See Hazelkorn (2016) pp.14-15, and footnotes 27-30 p.27.

³⁵ See annex 14: https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus2/files/annual-report-2016-stat-annex_en.pdf.

³⁶ Irish education statistics are currently collected by the HEA are on an all-island basis. That is, when Irish statistics refer to "Ireland" this refers to both states existing on the island. This is because citizens of Northern Ireland are entitled to study in HEIs south of the border, this being an element of the Good Friday Agreement which brought the conflict in Northern Ireland to an end. After the UK exit from the EU is finalised, this is likely to change, and Northern Ireland students will no longer be included in Ireland stats since they will no longer be EU students. See North-South Parliamentary Association (2014) "Access for students to third-level education in the respective jurisdictions (i.e. Northern Ireland and Ireland)", Background briefing prepared by the Research and Information Service (RaISe) of the Northern Ireland Assembly and of the Library & Research Service of the Houses of the Oireachtas (*Tithe an Oireachtais*) http://www.niassembly.gov.uk/globalassets/documents/raise/publications/2014/north_south/13214.pdf

Those UK citizens that are counted as international students are from Great Britain (i.e. England, Scotland and Wales). In 2016-17, 1,168 students came from Great Britain to study in Ireland.³⁷ Of those, 900 (77 per cent) studied at universities and colleges, and 268 (23 per cent) in the Institutes of Technology.

Ireland does not collect (at a national level) statistics on the origin of internationally mobile staff. While this data may be collected at the institutional level, it is not made publicly available, nor are institutions under any obligation to collate or disseminate such data.³⁸ Data are also not collected on the academic qualifications of staff in Irish HEIs, again unless this is collated by individual HEIs, but this data – if it exists – is not in the public domain.

Number of H2020 projects involving UK partners, ERC, and other funding sources

The UK is Ireland's largest research partner under H2020 in terms of collaborative links.³⁹ The UK is also the largest collaborator for academic, and the second largest non-academic collaborator for Science Foundation Ireland (SFI) funded researchers, followed by the US and Germany. Almost a quarter (41) of Irish-based successful recipients of the EU-funded Marie Skłodowska-Curie research awards choose the UK as their destination, with Ireland the next most favoured country (30), followed by the US (15) and Germany (8). In terms of changes in host country for ERC grants, the numbers remain small, with only three grant awardees changing country after grant award signature between 2007 and 2013, one going to Germany, and two to the UK.⁴⁰

Joint / double degrees with UK institutions

A 2015 HEA report on joint, double, and multiple degrees in public HEIs in Ireland notes the existence of seven joint + qualifications with UK HEIs (excluding Northern Ireland), and four Northern Ireland HEIs, across a range of levels.⁴¹ Private HEIs may have more such programmes, but such institutions are outside the remit of state higher education agencies, and data are not collected on such.

³⁷ All statistics here come from the HEA statistics on domiciliary origins of full-time students, (i) Irish-domiciled and (ii) all students: <http://hea.ie/statistics-archive/>.

³⁸ See Hazelkorn (2016) pp. 15-16 for data on Irish staff in UK HEIs however.

³⁹ See http://ec.europa.eu/assets/eac/msca/funded-projects/statistics/h2020/eu-countries/h2020-country-fiche-ie_en.pdf. This is the source for the H2020 and EU funding statistics that follow.

⁴⁰ See p. 106:

https://erc.europa.eu/sites/default/files/publication/files/ERC_funding_activities_2007_2013.pdf.

⁴¹ McMahon, F. (2015) Joint and Double/Multiple Degrees in Ireland, Dublin: Higher Education Authority, <http://ecahe.eu/assets/uploads/2015/01/Joint-and-Double-Multiple-Degrees-in-Ireland.pdf>

8.3. Concerns and Opportunities

Interviewees shared a common refrain about ongoing uncertainty surrounding Brexit, saying: “we don’t know what Brexit will look like”, and there are a multitude of different possible Brexits. Some interviewees thought the effects would only impact in the worst scenarios, in other words, if there was a “hard Brexit” signified by the reappearance of “hard” borders with police and passport controls and tariffs as a result of the withdrawal of the UK from the single market and currency union, and from EU research and other funding programmes. However, given the lack of clarity from UK negotiators on what it was that they are looking for, many felt this outcome was not beyond the realm of possibility.

Observations regarding impacts on research funding, recruitment, greater cooperation with EU institutions etc. were discussed as both (negative) concerns as well as (positive) opportunities. Different categories of interviewees had different perspectives and/or interpretation (e.g., in terms of staff recruitment), but in the main the sense of uncertainty was particularly strong.

8.3.1. National level

National policymakers saw Brexit as an opportunity for Ireland to step up and take a bigger role in the EU. As one policymaker saw it, Brexit presented more opportunities than challenges, in terms of research, internationalisation, and Ireland’s place as the soon-to-be largest Anglophone country in the EU. The challenge was to convince people, beyond the perhaps inevitably inward-looking nature of discussions regarding higher education, that Ireland is open for business and is gearing itself for Brexit.

Others also identified opportunities for Ireland to take up the coordinator role in European framework projects, whereas Ireland had historically followed the UK. It was felt there was an opportunity to use this period to assume such a role but more investment was required. Increased funding is becoming available, but much more would need to be required.

One area for concern was the potential that a “hard border” between Ireland and Northern Ireland would re-occur, which would see the re-imposition of border and passport controls thereby affecting the current free movement between the UK and Ireland. In particular, there are day-to-day issues for HEIs located close to the border; this will affect student and staff mobility issues with people living on either

side of the border and accessing studies and/or employment on the “other side”. Similarly, there are likely to be difficulties regarding purchasing and accessing materials and services, with price concerns once/if the UK leaves the customs union and single market as currently no barrier exists.

One policymaker noted difficulties surrounding investment. Because Brexit involves many unknowns, it is difficult to respond appropriately; the Irish government could realistically only respond to “knowns” and HEIs haven’t identified specific needs. Where particular actions were identified, e.g. recruitment of researchers, developing new European partnerships, and so on, funding had been made available; and in recent years, following the Great Recession, increased funding was coming on stream to higher education as a whole.

At the national level, it was suggested by various stakeholders that there is a coordination deficit in terms of higher education’s response. While some policymakers suggested that due to institutional autonomy, it was up to HEIs to take the lead; in contrast, some stakeholders and institutional leaders and academics thought it was the responsibility of government and its agencies to coordinate and lead higher education’s response. This equivocality reflects a degree of ongoing uncertainty; as the process progresses, there are signs of greater clarity, increased government action and support, and emergent signs of greater co-ordination.

Indeed, there was some support for an “all-Ireland” or combined “all-island” higher education sector in response to Brexit. However, the absence of a Northern Ireland Executive (devolved government) heretofore has made this very difficult – if not impossible. It was also noted that such an approach was further complicated by the political situation in NI. The popular vote in Northern Ireland was 55.8 per cent in favour of Remain (including all constituencies sharing the border with Ireland), and 44.2 per cent for leave.⁴² The Democratic Unionist Party (DUP), however, which favours leave, supports the UK conservative government via a “confidence and supply” deal. Sinn Féin, which favoured remain, continues to maintain its historic policy that its elected Members of Parliament will abstain from taking their seats in the House of Commons.⁴³

⁴² http://www.bbc.com/news/politics/eu_referendum/results

⁴³ For a detailed breakdown of how Northern Ireland voted, see Garry, J. (2017) “The EU referendum Vote in Northern Ireland: Implications for our understanding of citizens’ political views and behaviour”, Queens University Belfast Knowledge Exchange Seminar Series (KESS) paper, <https://www.qub.ac.uk/brexit/Brexitfilestore/Fileupload,728121,en.pdf>.

There was some reference to the possibility that UK universities might establish a base in Ireland, but nothing has come of this; if this was to occur, this would create tensions for the Irish higher education system.

8.3.2. Institutional level – leaders

Interviewees identified a mix of concerns and opportunities, most notably:

- Research funding. It is anticipated that the overall size of EU research funding will decline if/when the UK withdraws. However, given their success rate in EU funding bids (i.e., they take out more than they put in), there could be relatively more to go around for the remaining EU countries. Ireland would be well placed to capitalise on this, especially as it would be the only native English-speaking country remaining.
- Attracting high-level academic staff. This was a good opportunity for Ireland, but there were widely-acknowledged problems with/shortages in the Irish (specifically Dublin) housing market. This was identified as creating real impediments to recruitment (just as housing shortages are starting to create problems for the recruitment of undergraduate and postgraduate students), with one interviewee described this as a “non-trivial” issue.⁴⁴
- Relationships with the UK and with the EU. One higher education leader suggested that, contrary to some views, it made sense to invest time and money in sustaining and building up existing relationships with UK universities, and that there was no downside for the Irish Research Council (IRC) or Science Foundation Ireland (SFI) to ramp up funding for collaborative research projects. The view was that no matter what the outcome, such investment would pay dividends, as UK universities are and will continue to be significant institutions.

On the other hand, it was not an “either/or” choice between Europe and the UK. Ireland should not put all its eggs in one basket. In the pivot towards Europe, Ireland needs to be a lot more targeted and strategic approach in its EU funding applications.

⁴⁴ A recent survey of 13,000 ex-pats placed Dublin (home to 4 of Ireland's 7 universities) second last in Europe – ahead of Paris – in terms of best cities in which to be an ex-pat, and just ahead of Riyadh, Jeddah, and Lagos. <https://www.internations.org/expat-insider/2017/the-best-and-worst-cities-for-expats-39279>

- Effects of Brexit on UK HEIs. Two slightly contrary views were expressed. Some interviewees thought there was something like a “steady-state Brexit” for higher education on the cards. In this scenario, Irish and EU academics would continue to work as before, with levels of activity and targeting of international students remaining much the same on the part of the UK. The counter-narrative suggested a “sleeping giant is being awoken”, with indications from UK higher education that they are reconfiguring their budgets for the coming year and re-focusing on internationalisation post-Brexit. International offices in the UK had more significant budgets, with an increased intensity of focus on recruitment. In addition, a weakened sterling made the UK more competitive for international students relative to the Euro and Ireland. Thus, there was some concern about a degree of naivety in Ireland about low hanging fruit to be plucked.
- International network-building. There were opportunities to build strong alliances, via short term sabbaticals at the institutional level, rather than the standard one-year sabbatical. This would facilitate partnership building across Europe as well as in the UK and elsewhere.

In response, institutional leaders were strengthening their internationalisation strategies, and positioning Brexit within that context. Of the institutions sampled, neither said Brexit featured as a formal element of their internationalisation strategies, but rather noted that established plans addressed the opportunities and concerns which Brexit represented. This involves a combination of actions, such as strengthening international links, with a focus on Asia but also other countries, and attracting high level candidates and students. Indeed, comments were made about increased interest in Ireland and Irish institutions from both prospective researchers and international students, but these numbers are difficult to interpret in the wake of such a short period after Brexit.

Institutional leaders also noted the number of national initiatives over recent months.⁴⁵ While these were important developments, there was some concern that

⁴⁵ In October 2017, the Irish government announced a new international academic mobility programme, the *Government of Ireland Academic Mobility Programme*. It provides €500,000 to allow staff from public and certain private HEIs to undertake collaborative mobility and activities with partner institutions in high potential international markets in support of the objectives of the International Education Strategy 2016-2020, “Irish Educated, Globally Connected”. In November 2017, the government announced that universities could exceed the set the cap on public salaries in the Irish employment framework, in a bid to attract staff. Previously no public-sector employee could be on a salary greater than that of the Taoiseach (Prime Minister), set at €190,000. This raised the possibility that universities could offer salaries of €250,000. November also saw the budget for Erasmus+ being allocated a 13% overall

there had been too many “roundtables” and meetings about Brexit, with all of them reaching broadly the same conclusions. It was suggested that no particular policy or strategy direction was emerging, once again returning to the refrain that it’s difficult to have such a coherent, coordinated direction because “we don’t know what Brexit will look like”. That said, it was suggested that for all the talking that is taking place, there was little a sense of progress. There was criticism about the level of funding being made available, e.g. to attract “refugees from Brexit”, with one institutional leader suggesting the government had a naïve view of Ireland’s attractiveness. On the other hand, HE leaders are reluctant to be perceived as “predatory” towards their UK partners, who they will want to continue to work with post-Brexit.

8.3.3. Institutional level - academics

A primary concern among academic staff related to future research opportunities. Some interviewees noted they are currently working on H2020 bids, and there is a wariness to include UK partners by themselves and other EU countries. It was suggested this could be an opportunity for Ireland; given the UK has a strong track record in leading bids, Ireland might be able to step into any vacated space. However, others queried whether Ireland has the capacity (in various senses) to assume such a leadership role, and that significant investment in infrastructure and research personnel would be necessary in order to capitalise on such an advantage. Academics noted the need to ensure Ireland’s voice continues to be heard in Europe, given that, in the past, Ireland arguably rode on the UK’s coat-tails, knowing that its interests would be represented.

STEM academic staff suggested that Brexit and questions about the border could affect how research is conducted, including access to labs, facilities and materials which are currently shared. There could also be difficulties in terms of sharing lab samples and data. In addition, there were potential problems around suppliers of materials and equipment being based in the UK, and the imposition of tariffs which would immediately affect the cost of doing research.

All academic staff noted the opportunity presented in terms of attracting academic staff to Ireland, with one interviewee referring to the current situation as a “once in a century opportunity”. While some expressed sensitivity around poaching academic staff, others said the “gloves were off” given the inconclusive nature of the UK

increase in its budget, for student and staff mobility to programme countries, as well as strategic partnerships.

government response to negotiations. Poaching was considered a fact of academic life, and Ireland should acknowledge this; indeed, European academics were already leaving UK HEIs. Accordingly, one academic asked whether any research had been conducted as to where researchers were going, and what attracted them to particular locations.

Others thought that this behaviour might send out the wrong message. One academic questioned why Irish HEIs want to recruit such individuals, where their loyalty would lie, and what message it would send out to researchers in Ireland. Policies which offered special, elevated salaries and facilities were seen as “catapulting” staff to a professorship over the heads of existing staff.

Some interviewees spoke about opportunities in terms of mind-set or what another called the “intangibles” of Brexit effects. Ireland usually looks to the UK, and is likely to continue to do so. But, there was an opportunity to look at other countries, and consider other languages and cultures. As one academic noted, the UK tends to be Ireland’s first port of call for the writing of bids for grants and research funding. This was an opportunity to look more widely. However, the idea expressed by some university leadership that it’s a matter of both/and, e.g. that Ireland can give equal attention to both, was rejected by academic staff. There was concern about time and resources, and a need to concentrate on the EU as a simple matter of “bang for your buck” or value for money:

it’s not going to be a win-win. The simple fact of the matter is that remaining in research collaborations with UK is automatically reduced in its attractiveness in terms of the inability to co-apply for funding. (Academic Staff, KM)

Thus, if UK partners are no longer eligible for EU funding streams, then Ireland and Irish researchers should focus on EU partners as the longer-term prospect. The counter-argument (raised by the same academic) was that in terms of relative academic strength, many UK groups are at the top of their field, but how long would they remain so in the wake of Brexit.

8.3.4. Further Observations

Interviewees actively engaged in teaching and research underplayed the seriousness of Brexit, given that significant effects had not yet been witnessed, aside from a slight increase in applications from certain non-EU countries. Those undertaking research noted that there was a wariness to include UK partners in

future bids for EU funding, but noted that cooperation would nevertheless continue. One academic said that there wouldn't be barriers to running a research collaboration outside of EU funding streams, and that as such they "wouldn't be kept up at night" thinking about Brexit. As well as this, in terms of their activities as researchers, they noted that Brexit wouldn't affect their department or school level activities, and that they haven't the leeway institutionally to expand or contract their teaching offerings unilaterally, given that decisions about such are taken at the institutional level. Those at the more senior levels of HEIs saw Brexit as more serious, and looked at it in light of international competition for funding and students.

Many interviewees used "catastrophic language" to describe Brexit, speaking of "chaos", "disaster", going off a "cliff-edge", and there being a "storm". Others used more measured language speaking of "enormous regret" and "friendliness" in terms of actual relationships between Ireland and the UK. Such language reflected a real sensitivity to the nature of the border with Northern Ireland in the wake of "The Troubles" and the Good Friday agreement, and the need for political sensitivity to the unique situation on the island of Ireland, beyond the more usual, exclusively economic framing of Brexit in Great Britain. Elsewhere, there was a wariness to use terms such as "poaching" on the part of policymakers and institutional leadership, preferring instead to use more neutral terms such as "capturing talent" or "attracting academic staff".⁴⁶ Academic staff and sectoral stakeholders, in contrast, were content to use "poaching" in a rather more matter of fact manner.

8.4. Plans and Strategies

Over recent months, as the situation regarding Brexit has become slightly clearer, the Irish government has elevated its responses across all sectors of the economy. The key issues revolve around the Irish border, and trade. While these issues have major implications for certain sections of the Irish economy, concentrated in the trade relationship, and affecting areas such as food, agriculture, tourism, financials and logistics (transport), and with particular respect to the SME sector which is dependent upon trade into/with the UK, higher education and research are also affected. As discussed above, this affects student recruitment and mobility, including

⁴⁶ The Irish Research Council (IRC) did, however, take out a double-page ad in *Times Higher Education* in 2016, targeting researchers in the wake of Brexit. <https://www.independent.ie/irish-news/education/ireland-moves-to-poach-research-talent-from-britain-in-wake-of-brexit-34937383.html>

issues of fees and access to loans and student support, as well as academic mobility and research. There are also issues concerning closer collaboration, particularly in the northwest between the Institute of Technology in Letterkenny (LYIT) and the University of Ulster (UU) which has a campus in Derry/Londonderry, and projects which come within the remit of structural or regional funds, such as INTERREG programmes.⁴⁷

However, interviewees also see opportunities. There is a high-level government committee overseeing and developing a comprehensive Brexit strategy, with most attention being focused at the moment on the EU negotiations regarding the border with Northern Ireland/UK.⁴⁸

8.5. Brexit in relation to concurrent changes and trends

8.5.1. Cooperation/competition

The notion of competition versus cooperation was viewed differently according to who was interviewed. One academic suggested that overall the notion of collaborative effort remains important, and the life-blood of science. They don't see it affecting the rough balance of collaboration versus cooperation in research. In contrast, for university management, there is a different sense given that there is an increasing focus on international students. Ireland is competing with the UK and other EU HEIs for non-EU students (as well as some EU) who are looking for an English-language higher education experience. The fact that Ireland and the UK have historically operated effectively as a single higher education space were also reiterated by various interviewees, noting that this implied cooperation would endure.

One institutional leader noted, conversely, that there is also a significant degree of inter-institutional competition within Ireland, and that proposals by government in the wake of Brexit to make small amounts of competitive funding available might further dis-incentivise cooperation among Irish HEIs.

⁴⁷ *Initial Analysis of the Challenges and Opportunities of Brexit for the Derry City & Strabane and Donegal County Council areas - The North West City Region*, 2017. Derry City & Strabane District Council and Donegal County Council.

https://www.ulster.ac.uk/__data/assets/pdf_file/0020/181415/DCSDC_Brexit_Analysis.pdf

⁴⁸ https://merriestreet.ie/en/EU-UK/Key_Irish_Documents/Government_Approach_to_Brexit_Negotiations.pdf

8.5.2. Internationalisation

One member of HE management noted that internationalisation is an important “macro-trend”, and one which is growing in importance. Brexit can be regarded a manifestation of a countertrend in a neighbouring country.

Management from both universities interviewed said they were pursuing their agreed internationalisation policies, and that a focus on non-EU students from certain countries had not been altered or influenced by Brexit. Policymakers also referenced Ireland’s international strategy, saying this continues to be pursued.⁴⁹ It was also noted that a country does not build a reputation as an international destination for higher education overnight, and that Ireland has considerable work to do in terms of building a good reputation.

It was suggested, however, that even though the Irish Government is “*wrapping Brexit in the internationalisation policy*”, Ireland still needs to be more demonstrative and clear in its intentions. Ireland needs to be more strategic, and to have a message in terms of selling Ireland’s higher education sector as a system internationally. Currently, the focus is on trade missions to other countries, with which every/most institutions participates. There was some questioning regarding the effectiveness of this approach. As such, it was suggested a more targeted approach was necessary. Nevertheless, it was noted that in terms of research in certain fields and areas (such as agrifood and bio-economy), Brexit did lend urgency to actions that would have to be taken anyway.

8.6. Future perspectives

8.6.1. Effect on attractiveness of EU research

Asked about the future of European research, institutional leaders said that even if the UK “buy in” or “pay to play” this would not be the same as *actually being in*. For significant funding streams such as H2020, it was suggested that there’s a risk that the current focus on research excellence and the strongest consortium for the job might change. That is, if the UK are no longer at the negotiating table or, at the extreme, out of the programme entirely, major funding streams could become more

⁴⁹ <https://www.education.ie/en/Publications/Policy-Reports/International-Education-Strategy-For-Ireland-2016-2020.pdf>

influenced by structural or regional fund type mechanisms where a different model of resource allocation exists. As northern European countries are a strong voice for research excellence, Ireland needs to be join that chorus. One academic also suggested that the EU's brand internationally could suffer, with the EU being perceived as fractious.

Beyond these considerations, focus was on developing new partnerships and strengthening non-UK collaborations. However, there was no further thinking about potential implications for the EHEA or ERA.

8.6.2. Academic labour/mobility – staff perspectives

Overall, Brexit was not considered a significant issue for existing staff. UK staff do not make up a significant proportion of staff in Irish HEIs, although this proportion rises for those HEIs close to the border with Northern Ireland.

Management from one HEI noted that they had seen a 66 per cent increase in standard academic applications from the UK in the wake of Brexit. In terms of recent hires, that same HEI stated that it had made two high profile hires from the UK, and both directly linked their move to Brexit. Another institution's leadership noted - with surprise, but from an admittedly small sample – that in recent interviews for high-level academic appointments both Brexit and Trump were being noted as significant motivations in applying for the posts.

In terms of the recruitment of professional staff (e.g. academic affairs, international offices, student services), this was an underdeveloped arena in Irish higher education. Thus, there had been little consideration of possible opportunities, and there was no evidence of any significant increase in non-Irish-based applicants as compared with academic jobs.

However as noted above, there was a clear reluctance on the part of institutional leadership to engage with “active recruitment” of UK-based (international) faculty looking to move as a result of Brexit. Instead, a passive business-as-usual was preferred. Thus, institutionally, there is not an assessment saying “*let's look at the top 400 crystallographers in the world, and see who is hiring*”. In terms of offering higher salaries to make Ireland a more attractive destination (something that this HE leader said was attractive to the Minister for Education and Skills), this was perceived as “dangerous” in terms of possible implications for the existing academic market, competition in which was characterised as “*brutal*”, even before Brexit.

8.7. Transversal questions

There was general confidence in Ireland's Brexit negotiating strategy and that its interests were being well represented. Various stakeholders felt the Irish government had been successful in communicating its message broadly and at European level, and commended them for their performance to date. At the national or sectoral level, however, it was suggested that Ireland was less successful.

Ireland's position was contrasted with the UK where at the European level the UK has struggled to articulate a coherent vision or message, but nationally the UK government has targeted money at areas that will be hard hit, and also areas such as tourism that are regarded as a way to respond to Brexit. Irish stakeholders noted that UK HEIs were reconfiguring their budgets to focus on internationalisation to help ride out some of Brexit's negative effects. It was also noted that while the UK Brexit strategy mentions higher education, Ireland's does not.

Ultimately, according to one academic, Brexit would in fact have a greater effect on the UK higher education than on Ireland. Nonetheless, the door was unlikely to "suddenly close" between the two countries after Brexit.

8.8. Questions that emerged / country-specific questions or areas of interest

Specifics associated with the unique historical relationship between Ireland and the UK underlined much of the discussion. This referred to the ease of transit between the two countries, opportunities for student and academic/researcher mobility, and general cultural similarities even though there are also deep cultural and historical divides. While many areas of potential tension have been identified above, other issues are only beginning to emerge. For example, reference was made to the different disciplinary impacts. In the area of law and legal research, the UK is Ireland's most significant international partner; both countries are common law jurisdictions in contrast to other members of the EU which have different traditions. Both countries also study English language literature.

On this point, one interviewee from institutional leadership suggested that if Irish HEIs were to take a strategic approach to Brexit, there is an opportunity for AHSS fields to broaden collaboration beyond their tendency to work primarily/only with Irish

or UK academics. This could involve recruitment but also funding bids, international projects, external examiners as well as fields for investigation.

For many interviewees, the current shortage of accommodation was viewed with real concern, not just in Dublin, but also in other cities. Issue of price-points in the housing market, including the absence of sufficient student housing (for domestic and international students), but also for potential academic staff – both of which were seen as undermining Dublin’s and Ireland’s attractiveness. This might be an opportunity to encourage movement to HEIs outside of the Dublin region. One policymaker noted this could be a stumbling block to Ireland’s bid to host one of the EU organisations.⁵⁰

Higher education’s position, or rather lack of, in public policy discussions was also noted. Currently and throughout the Great Recession, Irish higher education had been poor at articulating a collective message demonstrating and/or justifying its public value, and value-for-money. In practice, this has meant HEIs have been unable to put forward a case that additional funding for higher education should be considered an investment rather than expenditure. Higher education has suffered from some well-inflicted scandals⁵¹ which have further damaged the sector’s public image. The cumulative effect has been to damage higher education at the time when further investment was required; indeed, the situation had reinforced government’s perception that further efficiencies were both necessary and possible.

A final point, raised by various interviewees, was that Ireland’s status was the source of some confusion in Europe and beyond. In other words, some people, admittedly ill-informed, thought Ireland was still part of the UK and that it would soon follow the UK out of the EU. There was a strong view that Ireland needed to do more work promoting itself, as one policymaker suggested. It is a very attractive location for companies, with a favourable corporate tax rate, and for students and professionals; it was a gateway into Europe. Its positioning was illustrated by the fact that New Zealand had reopened its embassy; Ireland had also reciprocally established an embassy in New Zealand for the first time. As such, it interviewees said there was a need to counteract any misconceived narrative, and assert that Ireland remains committed to Europe and the European project.

⁵⁰ Ireland ultimately lost out to Amsterdam and Paris.

<https://www.irishtimes.com/business/economy/headquarters-of-two-key-eu-agencies-to-go-to-paris-and-amsterdam-1.3298995>

⁵¹ <https://www.rte.ie/news/primetime/2017/0526/878118-rte-investigates-universities-unchallenged/>

9. Netherlands: Stages of uncertainty: Brexit and the unknown future of UK – Dutch higher education cooperation. Marijk van der Wende and Jurgen Rienks

Marijk van der Wende, Utrecht University

Jurgen Rienks, Association of Universities in the Netherlands (VSNU)

9.1. Overview of research conducted

Consequent to the result of the 2016 Brexit referendum, the Centre for Global Higher Education at the UCL Institute of Education launched in early 2017 a project entitled “Brexit and higher education in the UK and Europe: Towards a cross-country investigation”. This project aims to investigate the challenges faced by higher education institutions in the UK and Europe as the process known as Brexit unfolds.

In this context, a series of some 15 interviews were conducted in May 2017 among academic stakeholders in the Netherlands by Dr Marijk van der Wende, professor of higher education at Utrecht University, assisted by Mr Fabio Maggio, graduate student in the LLM programme on European Law at Utrecht University.

Interviewees included: presidents, deans, professors, recruiters, and senior-level policy officers from three Dutch research universities (Leiden, Maastricht and Utrecht) and from the Dutch Association of Research Universities (VSNU) and the Netherlands Organisation of International Cooperation in Higher Education (Nuffic). Some involved are British nationals working in Dutch universities and one Dutch professor temporarily working in the UK.

Interviews were conducted on the basis of a set of questions related to: assessment of current relationships between UK/NL Universities, possible fall-out / damage-control strategies, policy-making proposals / advocacy, confidence in the negotiation process, foreseeable consequences on UK/EU/NL in terms of competitiveness and attractiveness in the global scenario, and the personal and employment situation of British nationals in the Netherlands.

Additional national-level data on higher education cooperation between the Netherlands and the UK were collected by VSNU’s international director Mr Jurgen

Rienks (from WOPI, VINNOVA, and Cordis data bases), by Nuffic (Erasmus+) and from OECD data.

Further insights were gained from a meeting of vice-chancellors of Universities UK and VSNU (22 September 2017), which resulted in a Joint Declaration on the need for continued collaboration post-Brexit ⁵², and from the Round Table “Nuffic Talks Brexit” with representatives of relevant ministries, embassies, councils and agencies (25 September 2017). In the intermediate period, both Dutch and international media were screened for relevant publications regarding Brexit and higher education.

9.2. Present situation: significance of cooperation with the UK

The significance of current cooperation between Dutch and UK higher education will be assessed in three areas: research, education (students) and staff.

Table 9-1 [Netherlands] Significance of UK-Dutch cooperation in research

RESEARCH		Rank for the NL	Rank for UK
Horizon 2020 (at end September 2017 ⁵³):	4,751 collaborative links 1,279 Joint projects Funding connected to joint NL-UK projects	#2 (after Germany) 57% (1,163 B€ out of 2,031 B€)	#5 (after Germany, Spain, Italy, France) 21% (844 M€ out of 3,943 B€)
General numbers for collaboration	Joint publications: 35,301 (2011-2015)	#2 (after USA)	

The significance of cooperation in research is in general quite high for the Dutch research universities. Collaboration with UK universities ranks second for joint

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http://www.vsnu.nl/files/documenten/Nieuwsberichten/Joint_declaration_VSNU_Universities_UK.pdf

⁵³ h2020viz.vinnova.se Source: signed projects, eCORDA H2020 database, September 30, 2017.

publications and for the number of collaborative links under H2020, which connects to more than half of all funding received under that scheme.

Interviews revealed that research cooperation with the UK is generally perceived as very important indeed, although there may be exceptions. For instance, in informatics, top UK institutions may be less interested in EU funding (because of the availability of different funding sources and the bureaucratic burden of EU funding) and second-tier UK institutions are considered too weak by the Dutch leaders in the field.

The cooperation is clearly less significant for the UK, where the Netherlands ranks fifth in collaborative links and accounts for just over one fifth of all funding received from H2020. Such unevenness in European collaboration is generally to a large extent explained by the difference in size of countries, which is definitely a relevant factor here as well, although it should be noted that the Netherlands rates relatively high and directly after four much larger countries.

This position may be explained by the high research performance of the Netherlands. Its citation impact score is 40 per cent above the world average, putting it in third place worldwide behind Switzerland and Denmark⁵⁴ and first in Europe in terms of its share of papers among the 10 per cent most cited (2008-2012)⁵⁵. Above average and above size performance is also demonstrated by the Dutch research universities in, for instance, the ERC^{56 57} and in global university rankings⁵⁸.

Table 9-2 [Netherlands] Signed contracts amounts in Horizon 2020 related to UK-Dutch research cooperation⁵⁹

University ⁶⁰	H2020 grants contracted (M Euro)	Excl. ERC grants	Grants contracted to UK Partners (M Euro)	Ratio of UK / NL grant	Ratio of UK / NL grant Excl. ERC
Tilburg University	14	2	5	0.36	2.5

⁵⁴ http://www.vsnu.nl/en_GB/f_c_onderzoekskwaliteit.html

⁵⁵ UNESCO (2015). Science Towards 2030, p. 261

⁵⁶ <https://www.rvo.nl/sites/default/files/bijlagen/ERC%20in%20the%20Spotlight%202011.pdf>

⁵⁷ UNESCO (2015). Science Towards 2030, p. 251

⁵⁸ http://www.vsnu.nl/en_GB/f_c_rankings.html

⁵⁹ h2020viz.vinnova.se

⁶⁰ Here English names are used. These may differ from the names used as legal entity for contract with the EC.

Radboud University	76	43	97	1.27	2.25
Erasmus University Rotterdam	16	8,9	20	1.25	2.25
Vrije Universiteit Amsterdam VU	56	29	62	1.11	2.14
University of Twente	49	29	62	1.27	2.13
Eindhoven University of Technology	71	51	95	1.33	1.86
University of Amsterdam	88	27	48	0.55	1.78
Utrecht University	87	28	49	0.56	1.75
Maastricht University	41	28	46	1.12	1.74
University of Groningen	64	34	58	0.9	1.71
Leiden University	69	25	40	0.58	1.60
Delft University of Technology	134	78	113	0.84	1.45
Wageningen University and Research	45	37	49	1.09	1.32

Table 9.2 gives further indication of the importance of cooperation between Dutch and UK universities under Horizon 2020. The interests at stake would appear to be higher, with a relative higher amount of grants. These figures are indicative of the size of the network on the UK side. However, they only show the proportion of UK grants related to individual Dutch universities.⁶¹ Another reason why this indication has to be taken as a proxy is because individual universities may present a different share of their research portfolio under Horizon 2020⁶². The importance of the collaborative streams of Horizon 2020 varies from one discipline to another. In particular, Social Sciences and Humanities may, according to the public debate, be

⁶¹ On the Dutch side also more partners can be involved.

⁶² E.g. not all universities as legal entity include medical research at their related hospital, and Wageningen University and Research performs most research activities under a different legal entity.

less often considered as first-tier partners for projects under societal challenges. Given the strong presence of SSH disciplines in both the UK and Dutch system (as opposed to many other countries) and many different forms of collaboration, exclusively looking at Horizon 2020 would ignore the existence of cooperation not (or less) entitled to specific incentives. Brexit may affect such collaborations in a different way than the cooperation supported by Horizon 2020.

Table 9-3 [Netherlands] Significance of UK-Dutch cooperation in education

EDUCATION		UK → NL	NL → UK
		Rank	Rank
Data for research universities and universities of applied science (Nuffic statistics)	Erasmus+ exchange (2015):	986 # 5 (after Spain, France, Germany, Italy)	2179 #1
	Degree students (2014) (2,063 in WO and 715 in HBO)	2,778 #5 (after Germany, China, Italy, Belgium)	3,326 #2 (after Belgium)

UK-Dutch cooperation in higher education, as measured in terms of student mobility, indicates a more mixed picture. The UK is a top destination for outgoing students, both under the Erasmus exchange scheme (number one) and for degree mobility (second position). All students in the former category receive European grants for their stay in the UK and almost half (1,612 in 2014) of the latter category took a Dutch government grant to the UK.

The most striking aspect is the uneven flows in exchange, with a ratio of 2.2 Dutch students sent to the UK against every one UK student received. However, this is no exception as the UK has always had very imbalanced student flows with relatively (very) low outgoing mobility of its own students to foreign destinations.

The same has for a long time been the case in terms of degree mobility, and although the flows are still slightly unbalanced (ratio of 1.2), a significant rebalancing has occurred over the last decade. In fact, the number of incoming degree students from the UK increased almost six-fold (from 464 in 2006 to 2,778 in 2014). The strongest increase is observed from 2011 onwards, in anticipation and subsequent to

the sharp rise in tuition fees in the UK in 2012. These high costs (up to £9,000 per annum) have surely been a push factor, considering the moderate fees (€2,000-4,000) in the Netherlands. The strong supply of English-taught programmes in Dutch higher education is another pull factor. The Netherlands is now the largest provider of English-taught study programmes in mainland Europe, with over 2,100 international study programmes available⁶³. This represents at research universities some 20 per cent of all bachelor and around 70 per cent of all master programmes.

The interviewees expressed that the gain in UK students studying for degrees is generally seen as having a positive impact, which is mostly illustrated by the fact that they are native speakers of English. Data on their actual academic performance as compared to domestic or other international groups are not yet easily available. Sporadic institutional research on German student performance suggests that they tend to outperform Dutch students. Some early (unpublished) evidence from one undergraduate college suggests that UK students may be weaker performers. Perhaps this could be explained by the stratified nature of UK higher education, where the top students might prefer to stay in the elite institutions in their own country, while in Germany with its much more egalitarian structure, top students may wish to seek opportunities abroad, even at higher costs than at home.

Table 9-4 [Netherlands] Significance of UK-Dutch cooperation in academic human resources

STAFF		UK → NL Rank	NL → UK Rank
Data for research universities and universities of applied science (Nuffic statistics, 2014).	Erasmus+ staff exchange (2015):	203 #5 (after Germany, Belgium, Spain Finland)	183 #3 (after Finland and Germany)
Data from WOPI for research universities and HESA for UK	Staff employed in universities (2015)	415 academics 84 admin staff	1,620 academics 365 admin staff

⁶³ <https://www.studyfinder.nl/>

UK-Dutch higher education cooperation in the area of staff mobility under Erasmus reflects the picture of student mobility, in terms of the relative importance (rank) of the UK as a destination compared to the relative importance of the Netherlands as a destination for UK staff; but with quite balanced flows in absolute numbers (likely due to the programme's mechanisms).

The situation for employed staff is more unbalanced, with ratios of around four Dutch staff members (mostly academics) employed in the UK, compared to one UK staff member in the Netherlands (also mostly academics and to a lesser extent administrative staff).⁶⁴

Across all interviews the benefits of international staff were underlined as positive, contributing to quality, openness and diversity in the academic context, UK staff included and without exception or exclusion.

Regarding the present situation, it can be concluded that the cooperation between UK and Dutch higher education institutions is both quantitatively and qualitatively significant. However, it should be noted that:

- The situation is uneven: in absolute numbers, the flows of exchange students and employed staff from the Netherlands to the UK may have a bias of a factor two and four respectively compared to flows from the UK to the Netherlands. Relatively, that is when we take the size of the higher education system into account (the UK has 2.28 million students, almost three times the Dutch system with some 714,000 students), these ratios even rise to six for exchange students (i.e. six times more interest for exchange to the UK from Dutch students than the other way around) and 12 for staff!
- The increase in tuition fees in the UK has substantially increased the inflow of UK students in Dutch higher education. Besides, the role of language may explain both why the UK is so attractive for the Dutch as well as the strong interest of students from the UK for English-taught programmes in the Netherlands.
- Germany is more important for both the UK and the Netherlands within the EU; for the UK especially in research and for the Netherlands mostly in education. The number of German students in the Netherlands (22,189 in 2016) is almost tenfold the number of students from the UK!

⁶⁴ Data exclude *Hogescholen* (Universities of Applied Sciences).

- There may be important differences between disciplines and between professional fields, in particular related to the nature of collaboration or ways by which it receives incentives. According to the public debate, Horizon 2020 is less important for the social sciences and humanities. National funding schemes in such specific areas may take prevalence over European funding and therefore lead to less (visible) international collaboration.

9.3. Main concerns / opportunities

At the time the interviews were conducted (spring 2017), the main concern for all interviewees was the uncertainty about Brexit in terms of the process itself and its outcomes. This uncertainty was felt to make any planning or strategy development at individual, institutional, or sector level quite impossible. Opportunities were anticipated at that point by very few interviewees (see next section) and it seemed that no collective action or even scenario-building had started yet.

Concerns were fuelled by dismay, even disbelief “*How could this happen?*” and strong hopes that it could still be resolved or halted completely: “*Too stupid to happen all together*”. Various respondents feared in particular a “no deal” as an outcome, or at least a very chaotic period if the negotiations failed to produce a deal or at least an orderly transition period.

Any hopes for swift resolutions were frustrated by the speech of EU Brexit negotiator at the launch of the EU Brexit negotiation guidelines at the end of April 2017⁶⁵ where he made very clear that:

I understand that universities are keen to have clarity as soon as possible with regard to the future relationship that they will find themselves in. Planning takes time.

And

One option is that the UK could decide to continue to support university networking and joint projects as a third country after Brexit. But this would require a different legal and financial framework. I do not expect negotiations to bring clarity on these and a plethora of other issues in the immediate future.

⁶⁵ http://europa.eu/rapid/press-release_SPEECH-17-1236_en.htm

Unfortunately, the uncertainty has not been reduced since. On the contrary, further speeches by UK leaders considerably added to this feeling of insecurity about the Brexit process as a whole. Even if UK leadership keeps hinting it is willing to pay for access to the EU-knowledge programmes, uncertainty will still prevail in the short term:

If the United Kingdom withdraws from the EU during the grant period without concluding an agreement with the EU ensuring in particular that British applicants continue to be eligible, you will cease to be eligible to receive EU funding or be required to leave the project on the basis of Article 50 of the grant agreement.⁶⁶

9.4. Plans and strategies

As stated above, interviewees mostly expressed in the spring of 2017 that it was too early to consider particular strategies to anticipate a post-Brexit situation. However, informal talks about possibilities to allow UK institutions to establish administrative footholds or even branches at their partners' campuses in the EU were being held in some circles. Indeed, King's College London announced such a deal with TU Dresden in the summer of 2017.

And although also not formally or publicly, some interviewees indicated that recruitment of qualified staff from the UK was being considered or actually already going on – for instance in areas where shortages exist in the Netherlands (e.g. informatics). In other disciplines, interviewees were mostly very sorry for their partners in the UK, some of whom had expressed they were really very distracted by the effect of Brexit on their career perspectives (e.g. in European law), but had not taken action to recruit or invite staff.

Not much strategic planning was really underway at that point. There seemed to be only a minority of universities anticipating a possible loss in students from the UK or preparing to enhance their position in other international student markets.

Exceptionally, one very internationalised Dutch university was doing so and actively explored opportunities for recruiting students from countries and regions that would

⁶⁶ The European Commission's Note to UK Researchers (6 October 2017).
<http://ec.europa.eu/research/participants/portal/desktop/en/support/about.html>

hitherto typically choose to study in the UK (e.g. from the Middle East). Few were aware of other EU countries, such as Spain, that were already actively campaigning to attract more international students.

But in the months that followed, the sector became more aware of the opportunity to position the Netherlands globally as the number two destination (or as the best alternative to the UK) in the EU for study abroad. The leading position in supply on international English-taught programmes (see section 2), was more generally underlined by comments on the strong position of Dutch universities when new rankings came out and the Netherlands was identified as one of the main “powers behind the throne”.

Figures reveal the UK to be less of a pacesetter than generally thought and the Netherlands to be a real knockout.

What stands out is the exceptional performance of the Netherlands’ 13 main research-intensive universiteiten – every single one of which makes the top 100 of the Europe ranking. On research reputation, citation impact and research productivity (papers to academic staff), the Netherlands has a clear advantage over the European pack⁶⁷

However, apart from perhaps some steps by individual institutions, no concerted action was taken by the sector as a whole, as more uncertainties than Brexit alone kept it from defining new policies or grand international strategies.

9.5. Brexit in relation to concurrent changes and trends

These uncertainties were, among others, related to ongoing critical debates about the (dis)advantages of recruiting international students and teaching in English that arose around the start of the 2017-18 academic year and the then still incomplete formation of a new government (since elections mid-March).

These conditions may correspond to some extent to the forces that led to Brexit in the UK. As early as 2005, Euroscepticism led to a “devastating no” from the

⁶⁷ THE (21 June 2017). *Europe University Rankings 2017: powers behind the throne*
<https://www.timeshighereducation.com/world-university-rankings/europe-university-rankings-2017-powers-behind-throne>

consultative Dutch referendum on the Treaty establishing a Constitution for Europe (followed not much later by the French “non”). Since the global financial and Euro crises, concerns have grown also in the Netherlands over issues such as globalisation, inequality, immigration, and further European integration. Like in other European countries (e.g. France, Germany, Austria), populist parties benefit from these concerns and increasingly influence the public debate and political scene. In the Netherlands, these parties are positioned both at the right and the left extremes of the political spectrum and the traditionally large centre-stage parties (social and Christian democrats) have lost considerable support from the electorate to these parties (which gathered almost a third of the votes in the last parliamentary elections). Dutch populist parties tend to spread moderate to strong anti-European views (a 2016 Dutch referendum on the EU association Treaty on trade and security with Ukraine also resulted in another “no”) and fuel anti-globalisation critique. Sometimes through connections with student activist groups, this extends occasionally to the anti-internationalisation debates concerning higher education, a phenomenon which is observed in a wider range of European countries.⁶⁸

To many, the election of Donald Trump as the new president of the United States in 2016 was the result of a popular response to similar symptoms, i.e. concerns over globalisation, immigration, growing inequality, loss of jobs, etc. One interviewee noted that Canadian universities have benefited from this as an attractive alternative for work or study in the US.

For the Netherlands, which has developed a strong trans-Atlantic orientation since WWII and indeed was one of the main driving forces to make the UK join the EC in 1973 (confirmed in UK referendum in 1975), both events combined are having a very serious impact at national level and in all relevant sectors. This certainly includes higher education, for which both the UK and the US figure among the major partners for Dutch research and higher education (as demonstrated with the data in section 1).

In combination with momentary uncertainties about the composition of a new government, the conditions in spring – summer 2017 made it difficult for Dutch

⁶⁸ Wende, M.C. van der (2017). Internationalisation futures in light of anti-globalisation sentiments. In: *A mosaic of cultures*. EAIE Conference Conversation Starter. EAIE. Pp 29-37.

<http://www.eaie.org/eaie-resources/library/publication/Conference-Conversation-Starter/conference-conversation-starter-2017>

Wende, M.C. van der (2017). How do globalisation forces affect higher education systems? *University World News*, Issue No:465.

<http://www.universityworldnews.com/article.php?story=20170620114312877>

universities to define new strategies for internationalisation in general and as a response to Brexit in particular. A new government was eventually installed on 26 October, including four parties (VVD, CDA, D66, CU), with a range of moderately different views on Europe (none of them anti-EU), with the Minister of Education representing the most pro-European party (D66). The new government's initial declaration addressed Brexit, stating it will fight for the Dutch fishing industry in the negotiations, maintain solidarity with the EU in the talks with the UK, and legislate to allow its citizens living in Britain the chance to have dual citizenship (see 9.7). Higher education, like many other sectors that may have lobbied the government (e.g. banking and financial services, aviation, transportation, multinationals), was not mentioned in particular at that stage.

9.6. Future perspectives

For such an Anglo-Saxon-oriented country like the Netherlands, Brexit is perceived as a real threat. Having the UK in the EU was considered the best guarantee against the risks of a dominant German-French axis as perceived by all smaller countries, and of becoming economically a province of Germany for the Netherlands in particular.

No country is more unhappy with Brexit than the Netherlands. We lose at Brussels meeting tables another major liberal mind, a major counterbalance against the legalist Germans and étatist French. ⁶⁹

This might also be the perspective that seems to inspire some interviewees' comments on questions regarding the possible impact of Brexit on competition in the EU. They fear that it will decrease as the UK is seen as the strongest driver of competitive research funding (with often the Dutch on their side). Some expect that Germany will take a more leading role and regain a position in the EU's higher education and research policies, but fear it would be too weak without the UK to compensate for "*the draw for less competition but more cooperation from the south/east*". Also, others indicate that they expect that when the relative roles of Germany and France become stronger, a North-South divide over competition

⁶⁹ *Aan dood gewicht heeft niemand iets.* Caroline de Gruyter, NRC, 22 September 2017

versus cooperation may indeed rise. Some expect none or a neutral effect: the EU will simply continue to build competitiveness.

With respect to the attractiveness of EU research, all see this as being generally weakened by Brexit from a global perspective and are thus hoping for a Switzerland or Norway type of post-Brexit arrangement for the UK in order to retain the networking for research. But this would imply some continuation of freedom of movement of individuals, one of the key issues at stake in the negotiations.

The continued uncertainty around Brexit means that these statements all remain speculative for at least some time. Thus, it is difficult to predict the changes in the EU landscape – in terms of partnerships and mobility, for instance. What they make clear, however, is the extent to which the Anglo-Saxon orientation of the Dutch is at stake and how deeply it is ingrained into its political, economic, cultural and indeed academic routines, including a broad-spread and strong proficiency in the English language.

Nevertheless, the quantitative data presented in section 9.1 revealed that within the European context, Germany is the more important partner for cooperation in higher education and research for the Netherlands (as well as for the UK). Germany is also the most important trade partner for the Netherlands within the EU (for both import and export, the UK is in position three). Given the sheer size of the relations with the UK it will take time to resettle under new conditions. Brexit may imply a pivot to the continent for the Netherlands, and in particular a reorientation towards Germany, a country with which it shares important parts of its history (including the darkest periods, which eventually led to the establishment of European cooperation and integration) and the deeper academic traditions derived from the Humboldtian origins of the model of the comprehensive European university. Current political relations with Germany are strong and cultural ties, for instance in literature, theatre and visual media, have grown over the last decades. But the learning and mastering of German as a second language was minimised in competition with the more and more common use of English as the lingua franca (also in conversation with Germans).

9.7. Academic labour/mobility – staff perspectives

As said, uncertainty is a widely shared feeling, but it seemed not to have affected employment relationships in the Netherlands at that point. Interviewees indicated

that any consequences of Brexit on the position of UK passport-holders employed in Dutch higher education had not been communicated to them yet by the institutions as their employers. Temporary contracts that expired were renewed as under existing conditions.

UK staff may have concerns over residency, but steps to secure residency would be very different in individual cases, ranging from feeling secure because of the Dutch nationality of the spouse, to the sudden decision (after living for decades in the Netherlands) to apply for Dutch citizenship “*because I lost trust in British Government*”.

Interviewees representing Dutch universities as employers were neutral or not yet clear about whether Brexit would lead to a loss or a gain in UK staff. As indicated in section 9.4, formal or public recruitment was not evident, but advantages may be explored more informally.

The situation that the roughly 100,000 Dutch nationals living in the UK would face after Brexit was very uncertain, since the UK and EU were yet to reconcile their differences on the citizens’ rights issue and Dutch nationals who take British citizenship to avoid having to leave the UK after Brexit would have been stripped of their Netherlands passports due to limits on dual nationality.

However, in October 2017, the new Dutch government announced that:

*The cabinet will prepare proposals for the modernisation of nationality law. It concerns an extension of the possibility of possession of multiple nationalities for prospective first generation emigrants and immigrants.*⁷⁰

9.8. Transversal questions

Interviews indicated that in the spring of 2017, lobbying and advocacy was still in a very early stage and not very public. Only very few interviewees were aware or involved at that point. More generally, they thought that this should be undertaken at national level and through European university networks such as LERU or EUA.

⁷⁰ The Guardian (10 October 2017). *Brexit: Dutch nationals living in Britain will be allowed dual citizenship*. <https://www.theguardian.com/world/2017/oct/10/dutch-nationals-living-britain-allowed-dual-citizenship-brexit>. Referring to: *Vertrouwen in de toekomst*. Regeerakkoord 2017 – 2021 (VVD, CDA, D66 en ChristenUnie), p. 6.

As a start for establishing their joint position, a delegation of Universities UK was invited to visit the VSNU on 22 September. At the occasion of this visit a joint declaration on the need for continued collaboration post-Brexit was agreed.⁷¹ The text of this declaration does not simply seek to maintain the status quo, but stresses that:

Maintaining open international research and education systems, requires the support of both a favourable regulatory framework and a political climate which favours an active exchange of knowledge, researchers and students.

This declaration underlines that the situation not only requires new regulations, but also criticises (albeit mildly) a situation in which the system of higher education and research is put at risk.

Interviewees generally expressed a low level of confidence in the negotiations, which had hardly started to take off in the spring of 2017. They expected that R&D would probably be taken into account – most likely at a very late stage, and that higher education and student mobility would be topics lower on the list, with the risk of falling off completely in case of a hard Brexit.

And indeed the European Council Summit concluded on 20 October 2017 that not enough progress had been made to start the second phase of Brexit negotiations – a second phase that should also entail cooperation and mobility in higher education and research. As a response, leaders of 25 European higher education bodies signed a statement later that month calling on governments across Europe to speed up Brexit negotiations.⁷² This may be taken as a lack of confidence, as it states that “Universities must know which, if any, measures they need to undertake in the future”.

The city of Amsterdam has been particularly active in lobbying in the context of Brexit, for instance to attract the European Medicines Agency (EMA) to transfer from London to Amsterdam and for financial and other service industries as well. The Amsterdam metropolitan region has some 16,000 economically active British nationals of whom many work in the higher education sector. The Amsterdam Centre for European Law and Governance (University of Amsterdam) argued in a statement to the City Council, that in case of a hard Brexit, the Amsterdam higher education

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http://www.vsnu.nl/files/documenten/Nieuwsberichten/Joint_declaration_VSNU_Universities_UK.pdf.

⁷² Statement of 25 October 2017. Signatories include a.o.: UUK, VSNU, HRK, CPU and EUA.

sector should lobby the Dutch government to arrange for a bilateral agreement so as to avoid British students having to pay the much higher non-EU international fees to study at Dutch universities.⁷³ This may seem an attractive condition for expat settlement in the capital city, but would seem a strange proposition in the light of the already much higher fees that Dutch students pay in the UK and that may rise even more after Brexit.

9.9. Questions that emerged / country-specific questions or areas of interest

The data presented in section 9.1 demonstrate the popularity of the UK as a study destination for Dutch students. This concerns mostly the graduate phase, i.e. master programmes. Dutch students already face high tuition fees in England, which some expect to rise even more as a result of Brexit in which case Dutch students would have to pay the much higher (non-EU) international fees. If this was combined with strict visa regulations, interest in study in the UK may decline.

Various Dutch institutions, aware of these risks, chose to advise their students to consider alternative destinations after their bachelor, such as on the European continent, where high quality tuition is combined with low or no fees like in Scotland, Ireland, Switzerland, Sweden, and some top institutions in Germany and France. Or to consider opportunities in South-East Asia with top institutions in, among others, Singapore and emerging notably in China.

When focusing on future participation in the European programmes, some disciplines are more affected and at risk than others, as was set out in section 9.2. These risks may be addressed in further and more focused negotiations, including tailored solutions so as to minimise these. However, the disciplines less dependent on the EU programmes may be even more at risk for their cooperation, as they depend to a large extent on overarching generic conditions for cooperation, a favourable political climate, and the free movement of persons. This would seem less likely in view of the position of the UK government so far.

The consequences of Brexit in terms of a pivot to continental Europe and more towards Germany in particular were discussed in section 9.6. As seen from a

⁷³ <http://www.scienceguide.nl/201707/amsterdam-wil-niet-volle-pond-voor-britse-studenten.aspx>

broader global perspective, it seems that recent geopolitical events such as Brexit and the US turning its back on multilateral trade and cooperation create waves of uncertainty in higher education, in the Netherlands, in Europe and beyond, regarding international cooperation, the free movement of students, academics, scientific knowledge, and ideas.

Meanwhile China stands to gain as its universities advance in global visibility. The growing uncertainties in the West may make it only more successful in its aim to attract talent (back) and to enhance its impact on the global higher education landscape. Its New Silk Road (or One Belt One Road) project could potentially span and integrate major parts of the world across the Euro-Asian continents. But likely on new and different conditions, also for higher education.

From its historical connections to the ancient Silk Roads and well into the seventeenth century, when the Dutch took the lead in trade between Europe and Asia, the Netherlands has benefitted from China in trade and cultural-intellectual exchange. The New Silk Road will also carry more than consumer goods alone. As in previous periods, people, ideas, and knowledge will travel along with mutual influence. The Dutch trading mentality will surely be open to new opportunities. In academic circles ideas about China as a follower will gradually shift, as the size of China's higher education and R&D system and the speed at which it develops both to global standards will affect that of its regional partners as well as that of its global competitors.⁷⁴

Cooperation in higher education and R&D are major components of the new relations between Europe and China, the EU and ASEAN, and will affect the global higher education landscape. Yet questions remain about how this can be brought in line with the role of universities towards an open society as viewed in the West. The Netherlands can play an active role in exploring and building understanding of these new co-operations and horizons.

⁷⁴ Wende, M.C. van der & J. Zhu (2016). *China a Follower or Leader in Global Higher Education?* Research and Occasional Papers Series CSHE 3.16. University of California Berkeley: Centre for Studies in Higher Education. <https://cshe.berkeley.edu/publications/china-follower-or-leader-global-higher-education>

10. Norway: Norwegian higher education and Brexit: a view from the EFTA side. Peter Maassen and Ismail Acar

Peter Maassen and Ismail Acar, University of Oslo

10.1. Overview of research conducted

The interviews have been undertaken (until now) at two institutions (two at the University of Stavanger, both in the central administration; four at the University of Oslo (UiO), one in the central leadership, and three with professors). Three interviews are planned at the national level, and additional interviews in the two case institutions.

The University of Stavanger (UiS) received university status on 1 January 2005. Until then it had been a 'høyskole' (higher professional education institution). Currently it has around 12,000 students, distributed over six faculties. It is a member of the European Consortium of Innovative Universities (ECIU).

The University of Oslo (UiO) was established in 1811 as the first university in Norway; it remained the only university in the country until 1946. Currently it has around 27,000 students (MA and BA) and around 4,500 PhD 'students'. It is a member of the Guild of European Research-Intensive Universities. The Guild released a joint statement on Brexit with LERU and the Russell Group ahead of the December meeting of the EU Council.⁷⁵

The data presented in the tables in the annex are derived from various databases, including CORDIS, Statistics Norway, Norwegian Research Council, and SIU (Norwegian Centre for International Cooperation in Education).

⁷⁵ See: <http://www.the-guild.eu/news/2017/groups-representing-58-top-european-universities-r.html>; see also: <http://www.the-guild.eu/publications/guild-statement-on-brexit.pdf>

10.2. Present situation

10.2.1. National situation

At the national level there is no special plan or strategy prepared for dealing with a possible hard Brexit, neither for higher education, nor in general. The Norwegian government is mainly concerned about the economic consequences of Brexit, and has not publicly addressed the possible consequences of a hard Brexit for higher education in Norway. As a non-EU member, Norway is a member of the single market but not of the customs union. This implies, among other things, that it participates in H2020 on the same conditions as the EU members, for which Norway has to pay annually around Nkr 2 billion. On various occasions the government and other actors (including the main employers' organisation) have expressed scepticism about the UK becoming part of Norway's (with Iceland and Liechtenstein) EFTA agreement. This is caused by the fear that UK participation in Norway's EFTA agreement will weaken the agreement, since it is assumed that the UK wants to use EFTA as a transition agreement. As indicated by the Norwegian employers' organisation NHO: *"It is not in our interest to be caught up involuntarily in Great Britain's discordant relationship with the EU"*.

Overall the attitude in Norway towards Brexit has two sides. On the one side, there is a sort of an understanding in the media, in politics, and in the private sector that the UK wants to be outside the EU. After all, Norway has rejected EU membership itself in two referenda, and at the moment less than 30 per cent of the Norwegian population is positive about a possible Norwegian EU membership. On the other side, while the EFTA agreement and the Norwegian membership of the Common Market are looked at by many (including the labour unions) with suspicion, there is a strong political majority in favour of these, and there is no indication that this might change in the near future. Also, among the population at large there is a strong majority supporting the EFTA agreement. From that perspective there seems to be very little understanding for the UK handling of the Brexit challenge among the main Norwegian actors (in politics, the media and the private sector), who regularly comment critically upon the UK's Brexit negotiations taking place apparently without a clear plan or a realistic aim at a final result. Still, all key actors and organisations in Norway 'hope for the best', that is, either a Brexit agreement that is acceptable (and of some benefit or another) for both sides, or no Brexit.

10.2.2. Significance of cooperation in research and education

Research

For the last three decades, the USA has been the most important collaboration partner in research for Norwegian HE institutions, closely followed by the UK. Indicators here are the number of joint scientific publications, the number of research collaborations and staff exchange patterns. As a consequence of especially the EU's framework programmes, the UK has over the last decade been in the process of overtaking the USA as the most important research partner for HEIs in Norway. In Horizon 2020 (H2020) the UK is overall the second most important collaboration partner for Norway (after Germany), but more specifically for the Norwegian HEIs the UK is the most important collaboration partner (see Table 10.1), with 13.3 per cent of all H2020 projects with Norwegian participants having also at least one UK participant. There are obviously important differences between the two case universities (Stavanger and Oslo) when it comes to the perceived/expected impact of Brexit on the universities' research collaboration with the UK. At UiS, H2020 is a relatively unimportant source of research funding: the university is more active and successful in the funding programmes of the Norwegian Research Council. Stavanger, for example, had until 1 November 2017 not hosted any ERC projects, participates in only one H2020 project in the 'Societal Challenges pillar' of H2020 (see Table 10.4). As a consequence Stavanger had not developed any plans or strategies to deal with the possible exclusion of the UK from the EU's framework programmes. At UiO, H2020 is an important source of income: the University of Oslo has hosted since 2007 more than 40 ERC projects (around 50 per cent of all Norwegian ERC projects), coordinates currently three projects and participates in nine projects in the H2020 Societal Challenges pillar, and is involved (as coordinator or participant) in many additional projects, especially in the Excellence and Societal Challenges pillars. Its annual income (2010-2017) from H2020 is between Nkr 250 and 500 million. As also expressed in the Guild's statement concerning Brexit (see above) UiO is emphasising the importance of the continuous involvement of British universities in the EU's framework programmes. It has not developed a specific plan or strategy for dealing with the possibility of a 'hard Brexit', but is following the situation closely, and using both national arenas and European collaboration networks and consortia (especially the Guild) for preparing a strategy for the possibility of a 'hard Brexit', with an exclusion of UK universities from FP9. Overall, the interviewees are worried most for the consequences of a Brexit agreement in

which the UK authorities no longer accept the 'free movement of people' principle. That would in practice mean an end to the involvement of the UK in the EU's framework programmes (and Erasmus+). If this became a reality, the UK would be in a different position than Norway (Iceland and Liechtenstein), since these countries accept the principle of free movement of people, and therefore can participate in the framework programmes (and Erasmus+). An exclusion of the UK universities from the framework programmes would imply a serious blow for the research collaboration between the UK and Norway. Already it seems that Norwegian HEIs have become more sceptical of entering new research partnerships with UK universities for the purpose of applying for H2020 funding. Strikingly, overall this does not imply a stronger research collaboration orientation towards the USA, but rather towards East Asia (especially China), and continental Europe (especially Germany).

Education

The education collaboration between Norwegian and UK higher education is rather unbalanced in the sense that the UK is a very popular destination for Norwegian full-time degree and exchange students, but Norway is apparently not equally attractive for UK full-degree and exchange students (see Tables 10.7 to 10.11). Some striking characteristics in this are that about 50 per cent of the outgoing Norwegian exchange students to the UK are mobile outside the Erasmus+ programme. This implies that a possible exclusion of the UK from Erasmus+ will most likely not lead to a complete stop of the Norwegian student exchange mobility to the UK. This is also expressed by the institutional representatives, who indicated that it is assumed that the student exchange collaboration between Norway and the UK will continue at a relatively high level also in the case of a hard Brexit. However, it is hoped that the future exchange partnerships between UK and Norwegian HEIs will be more balanced. When it comes to the mobility of Norwegian full-time degree students it is of importance to point to the financial support system for Norwegian students abroad, which is the largest and most comprehensive (public) support system for studying abroad of any country in the world. The relatively high number of Norwegian students in the UK (despite the high tuition fees) can be (at least to a large extent) explained by the stipends (covering also tuition fees costs) all qualified Norwegian students can receive for studying abroad, including in the UK. The UK universities were among the first in the world to actively recruit Norwegian students through commercial agents and special fairs. This has been highly successful until now (see Table 10.7).

However, the interviewees expressed their uncertainty about the impact of Brexit on the choice behaviour of Norwegian students. There are indications (but not confirmed by data until now) that in 2017 the number of Norwegian students that started their studies in the UK has gone down compared to the years before. When it comes to overall student exchange mobility, the USA, Australia and the UK are the most popular destinations for Norwegian students, while the three most important home countries of incoming exchange students are Germany, France, and Spain, with limited numbers of incoming exchange students from the UK (Tables 10.8 and 10.9). In the Erasmus+ supported student exchange, Germany is the most important partner for Norwegian higher education (for incoming and outgoing students). The UK is the second most popular destination for outgoing Norwegian Erasmus+ students, but it is not among the 10 most important countries for incoming Erasmus+ students to Norway (see Tables 10.10 and 10.11). Finally, Norwegian HEIs are currently involved as coordinator or partner in 15 Erasmus+ joint degree programmes. Of these only four have a UK coordinator or partner (see Table 10.12).

10.3. Annex: selected data on research and HE collaboration

Table 10-1 [Norway] Norway's 15 most important collaboration countries in Horizon2020 (country origin of project partners as measured per project)

Country	University and University College/UAS sector	Private sector	Research institute sector	Norway Total
Germany	9.5	10.5	12.6	9.8
United Kingdom	13.3	10.4	5.9	9.2
Spain	6.1	8.9	10.5	8.6
France	3.8	9.4	9.2	7.6
Italy	7.2	8.7	7.4	7.3
Netherlands	6.8	6.7	7.9	6.7
Belgium	3.3	4.6	6.0	5.1
Sweden	5.6	3.9	1.5	3.9
Denmark	5.2	3.3	1.8	3.3
Finland	3.2	2.2	3.7	3.1
Austria	2.8	3.9	1.9	3.0
Greece	3.3	2.8	4.3	3.0
Portugal	2.8	1.8	2.9	2.8
Ireland	3.0	2.9	1.1	2.4
Switzerland	3.5	2.8	1.8	2.4
Share (%) Top 15	79.4	82.8	78.5	78.2

Note: each country counts only once per project, independent of the number of participants; % after sector Norway

Source: EU Commission, E-corda, June 2017 (as included in « Det norske forsknings- og innovasjonssystemet – statistikk og indikatorer 2017, Oslo: Norwegian Research Council 2017)

Table 10-2 [Norway] Norwegian scientific publications with international co-authors

Country	% of Norwegian academic publications with co-authors per country (2016)	Increase in number of co-authored scientific publications (1996-2006)
USA	12%	2,100
United Kingdom	11%	2,200
Sweden	9%	1,350
Germany	8%	1,450
Denmark	5.9%	1,000
Netherlands	5.7%	1,000

France	5.5%	950
Italy	5.2%	900

Source: Data CRISTin/NIFU (as included in « Det norske forsknings- og innovasjonssystemet – statistikk og indikatorer 2017, Oslo: Norwegian Research Council 2017)

Table 10-3 [Norway] Norwegian Participation in H2020 (“Societal Challenges” in seven areas: Health, Food, Energy, Environment, Transport, Society, and Security).

	Norwegian Coordination; with UK participation	Norwegian Coordination; without UK participation	UK Coordination; with Norw. participation	Norwegian participation; with UK participation	Norwegian participation; without UK participation
RIA	21	8	18	93	25
NTNU	3	1		11	3
Univ. of Bergen	4		3	14	2
Univ. of Tromsø			3	7	1
University College Oslo and Akershus	3		1	1	
Oslo School of Archit. and Design	1			1	
NMBU	1	1		1	
University of Oslo	2	1		7	2
Høgskolen i Harstad			1		
University of Agder	1			1	
Inland Norway University of AS				1	
Univ. College of Southeast Norway				1	
BI Norwegian Business School				1	
Sogn og Fjordane University College					1
Innovation Action (IA)	1	6	8	27	9
Universitet i Stavanger				1	
NTNU		2		1	
Universitet i Bergen			1		
NMBU		1			
University of Agder				1	
CSA /	2	1	4	30	8

University College Oslo and Akershus				1	1
NTNU		1	1	3	
SME-1 / SME-2		39			2
ERA-NET-Cofund	5	3	1	12	3
TOTAL	29	57	31	162	47

Note: Total: 3,956 projects; 326 projects with Norwegian participation – 8.2 per cent

Table 10-4 [Norway] Norwegian Participation in H2020 (“MSCA-Innovative Training Networks”).

	Norwegian Coordination; with UK Participation	Norwegian Coordination; without UK Participation	UK Coordination; with Norwegian Participation	Norwegian participation; with UK participation	Norwegian participation; without UK participation
MSCA-ITN-ETN	7	5	9	24	4
University of Bergen		1	1	6	
University of Tromsø	1			2	
University of Oslo	4	2	5	6	2
NTNU	2	2	1	5	2
University of Stavanger	1			1	
NMBU		1	1	1	
MSCA-ITN-EID			1	2	
NTNU			1		

Note: Total: 530 projects; 52 projects with Norwegian participation – 9.8 per cent

Table 10-5 [Norway] Norwegian Participation in H2020 (“MSCA-RISE”).

	Norwegian Coordination; with UK Participation	Norwegian Coordination; without UK Participation	UK Coordination; with Norwegian Participation	Norwegian participation; with UK participation	Norwegian participation; without UK participation
MSCA-RISE	2	1	6	3	2
University of Bergen	1	1			
University of Tromsø				1	
University of Oslo			1		

NTNU	1		1		
University of Stavanger	1				
Molde University College	1				
University College Inland, Elverum					1
University of Agder				1	

Note: Total: 286 projects; 14 projects with Norwegian participation – 5.0 per cent

Table 10-6 [Norway] Norwegian Participation in H2020 (“FET”).

	Norwegian Coordination; with UK Participation	Norwegian Coordination; without UK Participation	UK Coordination; with Norwegian Participation	Norwegian participation; with UK participation	Norwegian participation; without UK participation
RIA		1		1	3
University of Oslo		1			
NTNU					3
NMBU				1	
FET Flagship				1	
NMBU				1	
University of Oslo				1	

Note: Total: 180 projects; 6 projects with Norwegian participation – 3.3 per cent

Table 10-7 [Norway] Incoming full-degree students to and outgoing full-degree students from Norway for selected countries (2015)

Country	Incoming full-degree students to Norway (in numbers); per country of citizenship (2015)	Outgoing full-degree students from Norway (in numbers) (2015)
Sweden	844	617
China	672	<50
Russia	515	<50
Germany	494	200
Nepal	484	<50
Iran	345	<50
Denmark	309	2,898
Ethiopia	285	<50
USA	268	1,856

Ukraine	266	<50
Poland	253	1,601
Ghana	230	<50
France	214	222
Spain	198	258
Italy	171	87
Netherlands	120	384
United Kingdom	118	4,953
Australia	49	735
Hungary	48	996
TOTAL	10,644	16,687

Source: Statistics Norway (<http://www.ssb.no/>)

Table 10-8 [Norway] Norwegian Exchange Students outgoing 2013-2016 (incl. Erasmus+) for selected countries; minimum stay abroad 3 months.

Country	2013	2014	2015	2016 (Total number outgoing: 6,900)
USA	1,457	1,442	1,438	1,181
Australia	710	796	851	960
United Kingdom	563	551	465	509
Germany	244	277	277	365
Spain	213	166	181	285
France	271	243	283	273
Denmark	272	281	226	268
Netherlands	136	125	134	206
Italy	100	131	114	158
Sweden	137	139	129	157
Japan	72	133	102	133
China	125	105	140	125

Source: SIU (<https://www.siu.no/Data-analyse-og-prioriterte-samarbeidsland/Analyse/studentmobilitet/utvekslingsstudenter>)

Table 10-9 [Norway] Norwegian Exchange Students incoming 2013-2016 (incl. Erasmus+) for selected countries; minimum stay in Norway 3 months.

Country	2013	2014	2015	2016 (Total number incoming: 8,934)
Germany	1,191	1,275	1,440	1,570

France	769	856	907	1,082
Spain	582	525	483	577
Netherlands	315	324	475	559
Italy	299	341	392	433
USA	203	190	242	303
Poland	163	227	265	298
Denmark	180	248	245	254
Belgium	138	154	193	229
United Kingdom	153	156	157	210
Australia	97	105	129	150
China	120	134	158	139

Source: SIU (<https://www.siu.no/Data-analyse-og-prioriterte-samarbeidsland/Analyse/studentmobilitet/utvekslingsstudenter>)

Table 10-10 [Norway] Norwegian ERASMUS+ Exchange Students outgoing 2015 (total 2105) for 10 most popular destination countries (no time restriction)

Country	2015
Germany	336
United Kingdom	271
France	266
Spain	217
Netherlands	194
Denmark	172
Italy	128
Sweden	92
Belgium	73

Source: Erasmus+ Annual Report 2016 – Statistical Annex

Table 10-11 [Norway] ERASMUS+ Exchange Students incoming in Norwegian higher education (2015; total 6,206) from 10 most popular countries of origin (no time restriction)

Country	2015
Germany	1535
France	1031
Spain	639
Netherlands	531
Italy	410
Poland	307
Belgium	224

Denmark	208
Austria	201
United Kingdom	200

Source: Erasmus+ Annual Report 2016 – Statistical Annex

Table 10-12 [Norway] Erasmus+ Joint degree collaboration of Norwegian HEIs (2017) (in total 15 projects)

	Norwegian Coordination; with UK Participation	Norwegian Coordination; without UK Participation	UK Coordination; with Norwegian Participation	Norwegian participation; with UK participation	Norwegian participation; without UK participation
Joint degree consortium	1		1	2	11
University of Bergen					3
NTNU	1			2	3
University College of Southeast Norway			1		
University of Stavanger					2
University of Oslo					3

Source: SIU (<https://www.siu.no/Hoeyere-utdanning/Erasmus-i-og-utenfor-Europa/fellesgrader>)

11. Poland: ‘Let’s not get hysterical about Brexit’. The consequences of Brexit for Polish science and higher education.

Krystian Szadkowski

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11.1. Overview of research conducted

The data for this report was collected between June and November 2017.

11.1.1. Type of institution

The interviews were conducted in two different public, comprehensive universities. University A is a flagship metropolitan institution. University B is a medium-sized metropolitan institution with aspirations to become a fully-fledged research university. Both universities are internationally active and invest in international research cooperation, as well as in international presence and recognition. Similarly, both are declaratively interested in increasing the numbers of their international staff and attracting international students.

Table 11-1 [Poland] The institutional profiles of the institutions in the sample.

2016	University A	University B
Number of students	44,389	39,982
Number of international students	2,244*	650****
Number of doctoral candidates	3,200	1,324
Number of international doctoral candidates	283**	42*****
Number of academic staff	3,308	3,048
Number of international academic staff	n.d.	n.d. (13)*****
Total budget	1,368,530,200 PLN (285,110,460 GBP***)	701,686,200 PLN (146,184,625 GBP)
Total income from research	446,363,600 PLN (92,992,416 GBP)	92,123,100 PLN (19,192,312 GBP)
Share of income from research in the total budget	32.6%	13.1%

* 32 students from the UK in total (14 regular and 18 Erasmus+). ** 1 doctoral candidate from the UK.
 *** GBP/PLN = 4.80. **** 3 students from the UK ***** None from the UK. ***** n.d. on a total number
 of international academic staff - 13 academic staff from the UK (1 at Faculty of Biology; 3 at Faculty of
 Neophilology; 9 at Faculty of English).

11.1.2. Number of interviews and participant profile

This research report is based on 10 semi-structured interviews and the data collected in the Polish Ministry of Science and Higher Education (MNiSW) and the selected institutions. The institutions were selected using the criteria of meaningful institutional profile differences, as well as the minimum level of international activity (in general, Polish HEIs are not highly internationalised). The national level interviews were conducted with officials from the Polish Ministry of Science and Higher Education. One of these interviews was conducted in the form of a focus group including three ministerial officials. At each of the universities selected for the study, a representative of the high management structure was interviewed (a vice rector for research and international cooperation). Academic staff come from the fields of psychology, social sciences, English literature and mathematics. Respondents were selected as to illustrate different types of existing cooperation with UK-based institutions/academics: based on a formal project; based on a large formal cooperation scheme; non-formal. One interview was conducted with a UK citizen employed as a full-time scholar (teaching and research contract). There are no interviews with staff in precarious forms of temporary contracts in the sample, as this is not a typical form of employment within the system (with the exception of employment in externally funded research projects, where it usually lasts no longer than the duration of the project but is relatively well paid and protected). The interviews lasted between 20 and 60 minutes, while the average interview took around 25 minutes.

Table 11-2 [Poland] The number of interviewees in the sample.

	Number of interviewees
National level (MNiSW)	5
Institutional leadership	2
Academic staff	5

11.2. Present situation

11.2.1. Significance of cooperation with the UK

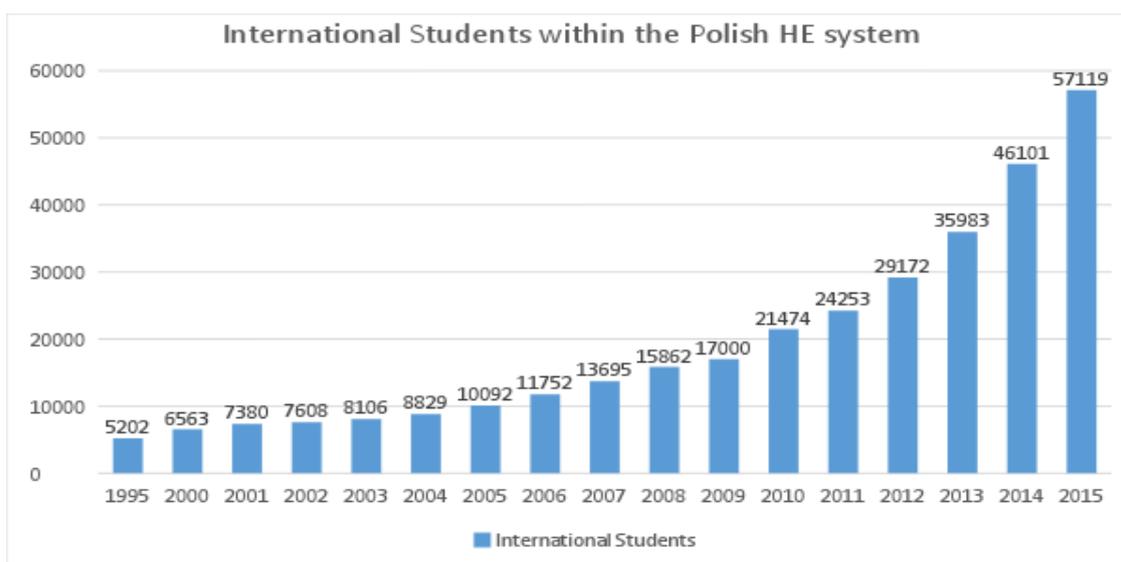
The UK is seen as an important, prestigious and highly efficient research partner (in terms of funding acquisition, as well as research productivity) that the representatives of MNiSW and institutional leaders, as well as individual academics interviewed for this report, would like to cooperate with. However, the cooperation with the UK, at the system level, is somewhat limited (in terms of research and joint projects or publications) or nearly non-existent (in terms of student exchange, especially inflow from the UK or employment of UK citizens as academics within the Polish system).

11.2.2. Background statistics

International students

The internationalisation of Poland's higher education system is very limited. In the academic year 2015-2016, more than 57,000 international students were enrolled. Most popular subjects among international students are business and administration (13,100 students); social sciences (11,100 students); medicine (8,200) and services (4,700). More than half of international students (53.6 per cent) come from Ukraine. While the numbers of international students are systematically growing (see Figure 11.1), their share within the system remains at the level of just 4 per cent. In the winter semester of the academic year 2016-2017, the number of international students increased to 63,356, of which only 339 were British citizens.

Figure 11-1 [Poland] International students' enrolment, all sectors (1995-2015).



Source: GUS 2016: 35

Erasmus and Erasmus+ students

Since the beginning of its participation in the Erasmus programme, Poland sent out twice as many students and academic employees as those who visited its institutions from abroad.

Great Britain is the sixth most popular destination for Polish students in Erasmus + (after Germany, Spain, France, Italy and Portugal). Between 1998-99 and 2016-2017, out of the 199,981 Polish students who participated in the exchange, 10,811 students chose British institutions as their destination. The 10 most popular destinations are presented in Table 11.3 below.

Table 11-3 [Poland] TOP 10 Destinations in Erasmus – students. 1998-2016.

Ranking	Country	Students in total
1	Germany	36,841
2	Spain	28,317
3	France	18,601
4	Italy	17,359
5	Portugal	13,386
6	Great Britain	10,811
7	Belgium	7,246
8	Denmark	7,144
9	Netherlands	7,052
10	Czech Republic	6,290

Source: MNiSW

British students chose Polish institutions 10 times less often than Polish students chose British institutions. Since 1998, just 1,119 students (out of 93,365 students in total – with the greatest share coming from Spain, Turkey, Germany and France) visited Polish institutions thanks to Erasmus.

Table 11-4 [Poland] TOP 10 Student inflow countries in Erasmus (and the UK). 1998-2016.

Ranking	Country	Students in total
1	Spain	19,916
2	Turkey	18,995
3	Germany	10,517
4	France	9,827
5	Portugal	7,623
6	Italy	6,431
7	Czech Republic	1,910
8	Romania	1,842
9	Slovakia	1,692
10	Lithuania	1,522
16	Great Britain	1,119

Source: MNiSW

Polish students in the UK

Despite the fact that the British statistical sources (UKCISA) assess the number of Polish students within the UK system at 5,245 students, the Polish MNiSW treat this data as imprecise and indicates that there are even as many as 20,000 students of Polish origin living and studying in the UK. However, as for the number of students with only Polish permanent residence studying in the UK, the number is just 420.

International academic staff

As of 31 December 2016, there were 80,195 full-time employed academics within the public higher education sector. British citizens consist of 84.5 academics (FTE) out of 2,108.5 (FTE) foreigners employed within the Polish public higher education sector.

Erasmus and Erasmus+ - Academics

Great Britain is the eighth most popular destination for Polish academics who participated in the Erasmus programme between 2000 and 2016-17 (after Germany, Spain, Italy, Slovakia and the Czech Republic). 3,143 academics out of a total number of 64,661 who participated in the programme chose British institutions as

their host institutions. The 10 most visited destinations are presented in Table 11.5 below.

Table 11-5 [Poland] TOP 10 Destinations in Erasmus – academics. 2000-2016.

Ranking	Country	Academics in total since 2000
1	Germany	8,396
2	Spain	7,724
3	Italy	5,913
4	Slovakia	5,184
5	Czech Republic	5,132
6	France	4,043
7	Portugal	3,845
8	Great Britain	3,143
9	Turkey	2,872
10	Lithuania	2,505

Source: MNiSW

Great Britain is the ninth source of academics coming to Poland (after Germany, Turkey, France, Czech Republic and Spain) thanks to the Erasmus Programme. Between 2000 and 2016-2017, out of 29,837 academics that visited Poland within the Erasmus framework, just 1,097 came from British institutions. The top 10 source countries for academics are presented in Table 11.6 below.

Table 11-6 [Poland] TOP 10 Academics inflow source countries in Erasmus. 2000-2016.

Ranking	Country	Academics in total since 2000
1	Germany	4 388
2	Turkey	3 724
3	France	2 832
4	Czech Republic	2 550
5	Spain	2 285
6	Slovakia	1 608
7	Italy	1 538
8	Lithuania	1 293
9	Great Britain	1097
10	Belgium	831

Source: MNiSW.

Horizon 2020 – Polish and British cooperation

Organisations from Poland (543) participated in 889 ALL Thematic Areas in H2020 projects, including 165 co-ordinations. The more detailed data are presented in Table 11.7 below.

Table 11-7 [Poland] Independent Participation of Poland in H2020 Projects.

	Organization Type	H2020 Projects			H2020 Coordinations		
		Participation in Projects	Participation in Proposals	Success Rate %	Num. of Coordinations	Num. of Proposals	Success Rate %
Independent Participation of Poland in H2020	HES	378	3 336	11,33%	49	730	6,71%
	OTH	77	329	23,40%	9	36	25,00%
	PRC	362	4 077	8,88%	63	1 550	4,06%
	PUB	110	398	27,64%	11	46	23,91%
	REC	326	1 787	18,24%	33	363	9,09%
	Total:	1 253	9 927	12,62%	165	2 725	6,06%

Source: NCPEURP

Organisations from Poland (355) and the United Kingdom (569) participated in 519 common H2020 projects (all thematic areas), where Polish organisations were coordinating 25 and British organisations 85 of these joint projects. The total number of participants in these joint projects is 1,855 different organisations. The total projects' budget amounted to over €43M. The summary is presented in Table 11.8 below.

Table 11-8 [Poland]. Mutual Participation of Polish and British organisations in H2020 projects.

	Organization Type	H2020 Projects			H2020 Coordinations			
		Participation in Projects	Participation in Proposals	Success Rate %	Num. of Coordinations	Num. of Proposals	Success Rate %	
Mutual Participation of	Poland	HES	231	1 625	14,22%	12	148	8,11%
		OTH	32	150	21,33%		5	
		PRC	152	1 261	12,05%	3	61	4,92%
		PUB	70	214	32,71%	3	9	33,33%
		REC	210	916	22,93%	7	112	6,25%
	United Kingdom	HES	505	3 188	15,84%	53	538	9,85%
		OTH	91	272	33,46%	6	14	42,86%
		PRC	311	1 991	15,62%	11	92	11,96%
		PUB	76	280	27,14%	5	22	22,73%
		REC	177	531	33,33%	10	55	18,18%
	Total:	1 855	10 428	17,79%	110	1 056	10,42%	

Source: National Contact Point for EU Research Programmes (NCPEURP).

Table 11.9 below presents the Top 20 organisations from Poland and the United Kingdom in common Horizon 2020 projects.

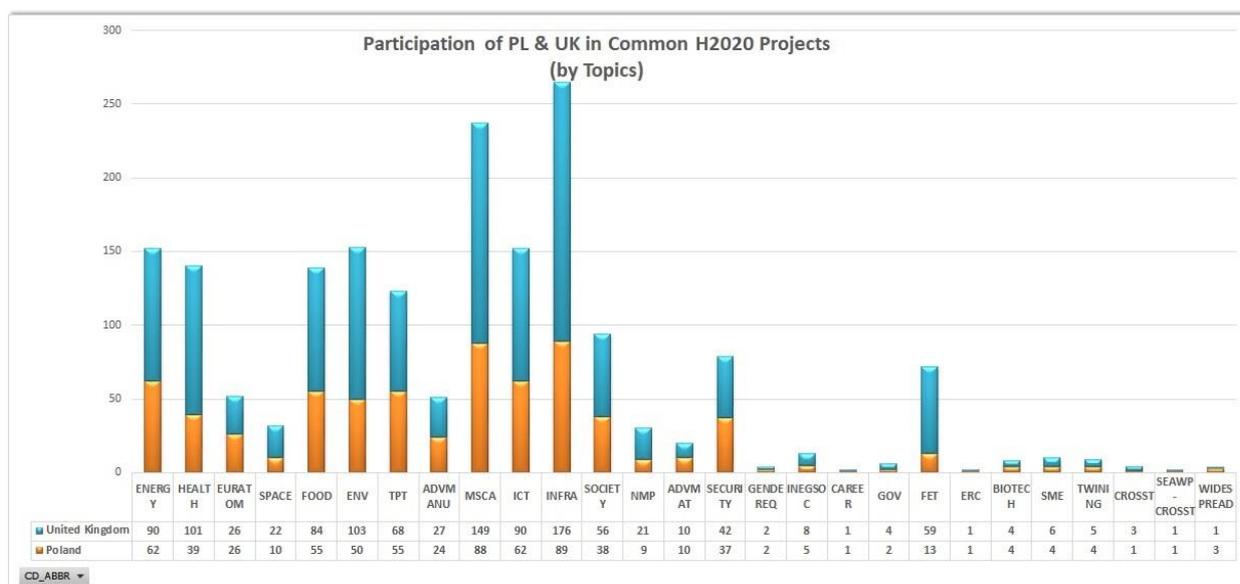
Table 11-9 [Poland] Top 20 Organisations from PL & UK in Common H2020 Projects.

Top 20 Organizations from PL & UK in Common H2020 Projects	Num. of Coordinations	Num. of Participations	EC Contribution ↓
The Chancellor, Masters and Scholars of the University of Cambridge [UK]	1	26	19 322 649,30 €
THE UNIVERSITY OF MANCHESTER [UK]	2	20	17 605 939,76 €
UNIVERSITY COLLEGE LONDON [UK]	5	34	13 886 191,35 €
NATURAL ENVIRONMENT RESEARCH COUNCIL [UK]	1	29	11 987 260,04 €
INSTYTUT CHEMII BIOORGANICZNEJ POLSKIEJ AKADEMII NAUK [PL]	1	29	11 414 163,63 €
The Chancellor, Masters and Scholars of the University of Oxford [UK]		25	9 172 651,39 €
SCIENCE AND TECHNOLOGY FACILITIES COUNCIL [UK]	1	21	8 759 228,74 €
UNIWERSYTET WARSZAWSKI [PL]	2	40	8 449 497,08 €
IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE [UK]	2	15	8 278 274,02 €
THE UNIVERSITY OF EDINBURGH [UK]	3	21	8 106 202,00 €
THE UNIVERSITY OF SHEFFIELD [UK]	5	22	7 464 921,67 €
King's College London [UK]		15	5 592 090,18 €
UNIVERSITY OF NEWCASTLE UPON TYNE [UK]	3	14	4 867 318,00 €
NARODOWE CENTRUM BADAN I ROZWOJU [PL]	1	16	4 814 297,09 €
AKADEMIA GORNICZO-HUTNICZA IM. STANISLAWA STASZICA W KRAKOWIE [PL]		23	4 777 957,16 €
THE UNIVERSITY OF NOTTINGHAM [UK]	1	15	3 912 574,11 €
THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS [UK]		12	3 785 228,10 €
UNIWERSYTET JAGIELLONSKI [PL]	1	19	3 775 243,93 €
UNIVERSITY OF SOUTHAMPTON [UK]		12	3 566 566,11 €
UNIVERSITY OF STRATHCLYDE [UK]	1	12	2 793 053,26 €

Source: NCPEURP

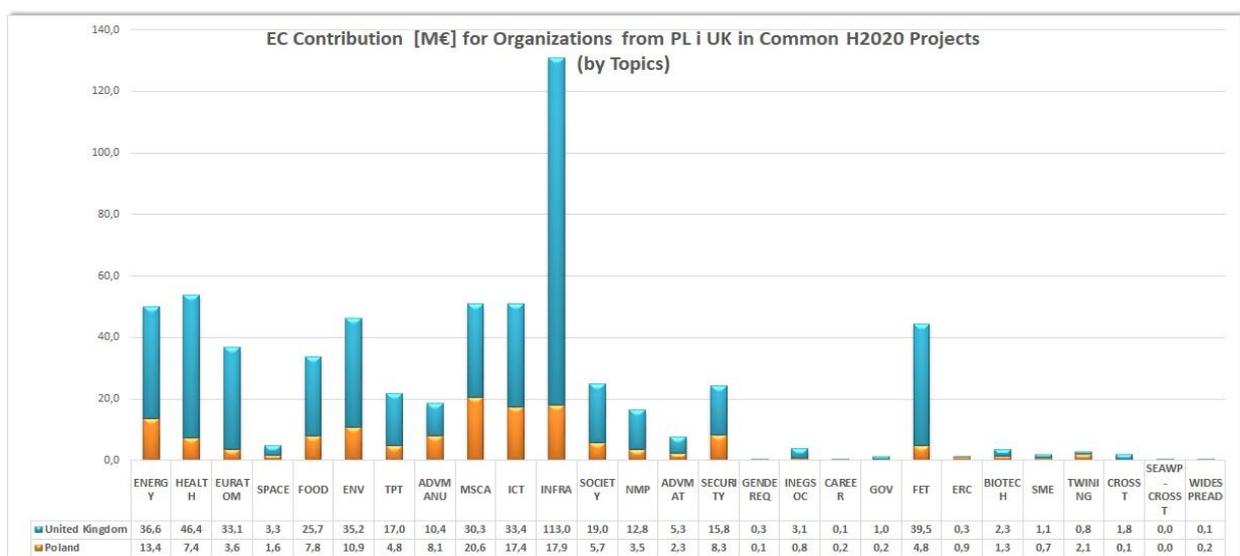
Polish institutions cooperate with British institutions on a variety of topics covered by Horizon 2020 funding streams, with the highest participation of Polish institutions in the following projects: Research infrastructures (INFRA) (89), Information and communication technologies (ICT) (62), Secure, clean and efficient energy (ENERGY) (62), Smart, green and integrated transport (TPT) (55), Food security, sustainable agriculture and forestry, marine and maritime and inland water research (FOOD) (55). Polish and British institutions also cooperate in the Marie Skłodowska-Curie actions (MSCA) (88) with the highest share of EU money received by Polish institutions in: INFRA (€17.9M), ICT (€17.4M), ENERGY (€13.4M), Secure societies - Protecting freedom and security of Europe and its citizens (SECURITY) (€8.3M), Climate action, environment, resource efficiency and raw materials (ENV) (€10.9M) and MSCA (€20.6M). The full data is presented in the two charts below.

Figure 11-2 [Poland] Participation of Poland and Great Britain in Common H2020 Projects. By topics.



Source: NCPEURP.

Figure 11-3 [Poland] European Commission Contribution (in €M) for Organisations from Poland and Great Britain in Common H2020 Projects. By topics.



Source: NCPEURP

Joint publications with the UK partners

In 2016, for 45,444 Polish publications indexed in Web of Science Core Collection, there were 3,015 Polish joint publications with one or more UK partners (2,699 - England; 638 - Scotland; 202 - Wales; 67 - North Ireland). The biggest share of joint publications was concentrated in physics and astronomy/astrophysics (Physics 19 per cent; astronomy/astrophysics 11.5 per cent; cardiovascular systems/ cardiology 5.9 per cent; neurosciences/neurology 5.5 per cent; engineering 5.1 per cent;

science/technology/other topics 4.8 per cent; oncology 4.6 per cent; computer science 4 per cent; chemistry 3.9 per cent; environmental sciences ecology 3.5 per cent). While according to the Web of Science the UK (6.63 per cent) was Poland's third publication partner in 2016, after USA (8.44 per cent of publications) and Germany (7.84 per cent), Poland was a nineteenth partner of the UK in joint publications (1.4 per cent).

11.3. Main concerns/opportunities

The main opportunities and concerns regarding Brexit in the context of science and higher education concerned primarily research funding, the UK's participation in the future Horizon 2020 and FP9 projects, as well as the mobility of scientists. These concerns were the same regardless of the level at which they were expressed (national, institutional or individual).

11.3.1. National level

Although ministerial documents emphasise the importance of maintaining Polish-British cooperation at the current level of intensity, the direct statements of representatives of the Ministry of Science and Higher Education against the background of other respondents interviewed are distinguished by a particular optimism regarding the possibility of a beneficial use of the Brexit opportunity by the Polish system and institutions. The most important opportunities for the Polish system as seen by ministerial officials are:

- *Within the area of funding:* the release of an essential share of EU funding for research (today consumed by British institutions) that could be absorbed, if won on the competitive path, by Polish institutions. More space for Polish institutions as leaders of EU-funded research projects, as well as within the newly established consortia.
- *Within the area of staff and student mobility:* reverse or at least weakening of the brain drain tendency that benefited the UK (or even “the brain seeds drain”, as put by one of the ministerial officials in the context of students who move to the UK). The possibility of return of at least some of the Polish students and staff to Polish institutions.

- *Within the area of cooperation:* potential increase of interest on the part of British institutions to collaborate with EU countries, including Poland.

The most important concerns at the national level are:

- Withdrawal from the European Research Area of some unique research infrastructure that is currently at the disposal of the British institutions.
- Marginalisation of the position of Polish science in cooperation in research areas of crucial importance: health research, military research and space research.
- The unclear legal situation of Polish students in the UK.

11.3.2. Institutional level - leaders

Leaders of the institutions in question expressed far less optimism and extreme caution. As regards Brexit, in the context of the potential concerns for the further cooperation between the Polish and British institutions and researchers, the following issues came to the fore:

- The leaders assume the possibility of some financial turbulence in the currently realised EU funded projects or some negative bias in the assessment of applications where the declared research leader would be a British researcher or institution.
- Doubts about the possibility of acquisition of the same level of research funding within the EU funded programmes if the already existing frameworks of cooperation lack the British partners.

The interviewed leaders could not identify many positive sides to Brexit. One potentially beneficial aspect of the Brexit-caused turbulence is an opportunity to attract researchers who plan to leave the UK (this has been said with the full awareness of the relative unattractiveness of Polish institutions for foreign scholars). Apart from that, the leaders believe that the situation for the Polish institutions will remain more or less as it is after Brexit. The interviewed leader of University A emphasised that the most important cooperation schemes with the well-established British institutions seem to be stable and protected from any negative consequences of Brexit.

11.3.3. Institutional level - academics

At the individual level, the potentially harmful effects of Brexit outweighed its possible benefits for the researchers and their co-operations. The most critical concerns included:

- Restraints on individual mobility caused by a potential tightening of regulations regarding the movement of people. Its negative consequences were emphasised both in the context of exchange students and of doctoral students as well as everyday research work (study visits, participation in conferences).
- Loss of a robust leading partner in applications for funds in European programmes.
- Difficulties in planning short-term and long-term research cooperation (matching partners in projects). The fact that British partners leave the leading position in consortia may have severe impact on the theoretical or methodological profile of research projects.

At the individual level, the benefits of Brexit were mentioned cautiously or not mentioned at all. This cautious attitude is well illustrated by the following excerpt from an interview with one of the researchers:

The Brits are the beneficiaries of the enormous amount of money from the European Commission, which is why I think Brexit could be a chance for the semi-peripheral countries. If the British could not get the research money and their contribution is not so huge that taking it away would pose a dramatic challenge for the EU research budget, but I think that it would be short-term gain, we could be gaining from that for two or three years - but the free exchange of ideas and projects is far more important than that at the moment (Interview 6, University B - Staff).

11.4. Plans and strategies

At the national level, the MNiSW supported the launch of two major initiatives that aim at increasing the level of internationalisation (combined with scientific excellence) of the Polish science and higher education system.

The first is the Discuri Centers joint initiative of Polish National Science Center (NCN) and German Max Planck Society (MPG) to establish Max Planck Institutes at 10 selected Polish institutions.⁷⁶ The aim of this programme is to establish centres of excellence in Poland and to integrate them into the Polish institutions. The call for the first round of applications has already been announced and the first centres should be opened in the second half of 2018. The centres will operate in close cooperation with German universities or research institutions and their aim is to strengthen the already robust (by Polish standards of international cooperation) scientific exchange between Poland and Germany. The ministerial official commenting on the rationale behind this initiative said:

The truth is that the Max Planck has exploited Germany to the very end, indeed, so it counts that cooperation with Poland could bring some additional benefits to it. However, on our side, it is important to use the know-how of this 'Factory of Nobel Prizes'. This is true - Max Planck is a structure for producing Nobel Prizes, to produce centres of excellence in Poland. We hope to have a full Institute of Max Planck in Poland. Maybe within seven years or so this could be possible. (Interview 3, MNiSW).

The second initiative is the establishment of a National Agency for Academic Exchange (NAWA – Narodowa Agencja Wymiany Akademickiej)⁷⁷ a ministerial agency to control the overall academic exchange process in the country. The institutional template for this agency is the German DAAD. The agency will be fully operational in March 2018. NAWA's mission is to enhance the potential of Polish science and higher education through international exchange and cooperation. This is supposed to be achieved through the realisation of four distinct aims: 1) *Reinforcing the scientific excellence* through international mobility programmes for research and teaching staff and return programmes for Polish scientists; 2) *Internationalising Polish universities and scientific institutions* through short-term mobility programmes, programmes supporting the internationalisation of education and increasing the organisational potential and promotion; 3) *Promoting Poland as a country offering interesting educational and research opportunities* through international mobility programmes for students, scholarship programme for the youth from the Polish diaspora and promotion of science and higher education; and 4)

⁷⁶ More information: <https://www.ncn.gov.pl/dioscuri/>

⁷⁷ See. Full text of Strategy of NAWA in English: <https://nawa.gov.pl/images/NAWA.pdf>

Promoting the Polish language and culture through promotion of the Polish language, history and culture.

These efforts to increase the level of internationalisation of the system were commented on by one of the ministerial officials:

It is exactly the reason why we have opened NAWA. Poland, as a part of EU, has the opportunity to act through attracting foreign scholars and through looking for such ways that allow Polish institutions to inhabit the niche left by the Brits (Interview 1, MNISW)

At the institutional level, leaders emphasised limited capacity to act on a large scale. However, even within this limited capacity, rectors are eager to try at least to attract some of the scholars who are willing to return to continental Europe after Brexit. As put by one of the interviewed leaders:

If there is a hard Brexit, and a lot of people will leave the UK system, then my University will for sure try to somehow 'fight' for these people. Even if just for Poles who work at British institutions today and might seek a new place for themselves. (Interview 2, University A – Leader).

The individual academics involved in research consortia with British institutions and planning to continue the collaboration are already discussing changing the leadership in the further applications in H2020 and FP9 projects. Some concerns are present, but they are not perceived as game changers. As suggestively put by one of the interviewees involved in a multinational COST project and planning a draft of further application for EU funding:

We have not thought yet about throwing away the Brits like a rotten egg but the situation looks like this: if the Brits are able to come on board, we'll take them - if not, we sail without them. Nobody cries because we will not have any political power to change a thing. However, we cannot think about giving up our plans and ideas. (Interview 6, University B – Staff)

11.5. Brexit in relation to concurrent changes and trends

11.5.1. Cooperation/competition

Respondents' opinions about the future of cooperation or increased competition in the European Research Area after Brexit do not make up a coherent picture. Too many essential variables were still unknown to the interlocutors, which is why their statements, also in this matter, were sometimes close to speculation. A significant problem hindering this task, even more, was the unknown future status of Great Britain in the context of the form and principles of its presence (or its complete absence) in the European Research Area.

When asked about the future of the relations between the European systems after Brexit, one of the researchers said:

I'm sure there will be continuous race for resources but we're in neoliberal competitive academia. So it's a race to the bottom anyway. So there's always be a competition, no matter if it will go up or down. (Interview 10, University B – Staff).

The competition is seen here as a general rule that regulates academic life. In such an interpretation, Brexit is completely irrelevant to the weakening or strengthening of competition between countries after the UK leaves the EU. An opinion of the high representative of the ministry seems to be suggesting that the increased pool of available funds for research after the UK leaves the EU may also be distributed with Poland's participation, as part of the process of expanding cooperation with the researchers from the leading countries:

I will say very brutally - the biggest players are not able to consume more funding. So, the fact that the Germans want to cooperate with us does not follow from the fact that they just have a liking for Poland, but that they are not able to win anymore for themselves on their own. They are already able to take more only as part of the partnership because they already have everything. The same applies to France (Interview 3, MNiSW).

Another representative of the MNiSW seemed to think in the same direction, but his optimism concerns the future of Britain's relations with Europe after Brexit. As he stated:

In the context of Brexit, the United Kingdom will open itself a little more than before to European universities, but probably in the first place this will be German and French partners (Interview 5 - MNiSW).

This optimism is not shared by the representatives of the academic staff, one of whom emphasised repeatedly that the United Kingdom outside the European Union is just another serious competitor (next to China, USA, Russia), which will grow quite unnecessarily because “*for very long time now there is no place in science for the idea of nations*” (Interview 4, University B - Staff). These mutually exclusive positions on the new relations are primarily due to the considerable uncertainties surrounding the conditions of Brexit.

11.6. Future perspectives

11.6.1. Effect on attractiveness of EU research

The effects of Brexit on the attractiveness of the EU as a research area were considered by interlocutors above all in relation to the outside of Europe and especially with regard to China and competition for Chinese researchers. In their opinion, Europe is perceived mostly as a unified region, and from a global point of view, Brexit may be perceived as an opaque and unclear process of little importance. However, it opens up a chance for the countries of Central and Eastern Europe – a chance to open up the perspectives of cooperation with East Asian countries and systems.

The metaphor of the “gate to Europe” was deployed all over the interviews. This gateway until now has been the United Kingdom (in terms of access to the European labour market after obtaining a British diploma or access to European research funding). In the predictions of the respondents, in the face of Brexit, the United Kingdom will inevitably lose this function. It may be overtaken by one of the leading European countries (notably Germany or France). Smaller advantages in the situation of dispersing the potential (e.g. foreign students or research resources) that have been taken up by the United Kingdom so far can also be obtained by the countries of the Central European region.

Another issue is the loss of research potential which now constitutes a significant counterbalance in research competition with regions such as the USA, China or

Japan. “*This critical mass of the UK is crucial in this process*” (Interview 2 - University A, Staff) - without it, Europe can move from the position of a global leader and thus become a less attractive place from the point of view of foreign researchers who previously treated it as one of the most important destinations where they could develop their careers.

11.6.2. What are the implications for EU initiatives?

The interviewees did not put much emphasis on the direct consequences of Brexit in the current financial perspective of EU research programmes. The representatives of the university leadership and the Ministry of Science and Higher Education emphasised that they relied on the assurances of the British government that current financial commitments in European projects will be respected. The uncertainty in relation to the planning of future projects in cooperation with institutions in Great Britain was best expressed by the leader of University A:

Today, to put it clearly, when I think about the coordination of projects, especially those in the Horizon 2020, where the University A is supposed to be posited as the coordinator, I do not encourage the researchers to pick Great Britain to be a strong partner in the project, because I expect some turbulence related to Brexit. Because I expect, I do not know, the loss of funding opportunities, and I'm also afraid that these projects may be assessed differently. A bit worse judged because of the uncertainty associated with Brexit. That is why I think that today entering large scientific projects with British universities can be risky. (Interview 2, University A - leader).

A similar approach was expressed by researchers who are currently realising international projects financed from European funds with the participation of British partners and are planning to continue this cooperation in the future.

11.6.3. Changes in the EU landscape

There was general agreement among the interlocutors that Brexit creates the prospect of severe shifts on the European research map and opens the door to the emergence of a new European research leader. In this position, the interlocutors would primarily see the largest European systems, like Germany or France (but in some instances smaller, dynamic countries like the Netherlands, Denmark or Spain

were mentioned as well). While the perspective of institutional leaders and the academic staff were limited to the above observation, representatives of the Ministry of Science and Higher Education pointed to an opportunity for the consolidated Central European area, from which universities could “*fight for a larger piece of financial cake*” and recover some of the researchers who left the country and moved to Great Britain for their system. However, as one of the representatives of the Ministry of Science and Higher Education said soberly, there are serious material obstacles for this consolidation:

We have a severe problem, but this is the EU policy which financed the more or less the same infrastructure in the last distribution of structural funds in all CEE countries. It was widely known what the easiest way to get money was. Therefore the countries of our region did exactly the same, and at the moment there is no possibility for real cooperation. We are competitors. The competition is huge. The basic problem is that there is a huge opportunity, provided we can create our own strength. Such attempts are being made as we speak (Interview 3, MNiSW).

Institutional leaders or academic staff confronted with the idea of a possible strengthening of the Central European region's position subjected it to serious doubt, pointing out that cooperation in science is not based on political interests and decrees.

11.7. Academic labour/mobility - staff perspectives

11.7.1. Non-national staff

UK citizens employed at Polish institutions on research-teaching contracts are a minor group. They consist of only 84.5 FTE out of 2,108.5 (FTE) foreigners employed within the Polish public higher education sector. The representative of this minority interviewed for the purpose of this research summarised his fears as regards to Brexit as following:

I think, I called it a time of insecurity. To start with. I have never been particularly worried about what will happen on this personal level, because I have been here 9 years, I pay taxes, I have a house here, I'm married to a Pole. That's less than an issue. So, for example,

I'm thinking about taking Polish citizenship. Now the reason I do that is not that I have any particular affiliation with the Polish country but more that I want to be part of the European Union. So that's one thing on my actual to do list - to apply for Polish citizenship so that I will have professional and personal access to Europe that I don't want to lose by only having a British passport (University B - Faculty, British citizen).

As confirmed by interviews with both institutional leaders, Brexit has absolutely no influence on the staff policy of their institutions. UK citizens can enjoy full benefits of stable employment at Polish institutions but, as emphasised by the institutional leader of University A, “they are free to go back to the UK” as no rector has any power to stop them.

11.8. Transversal questions

11.8.1. Gain / loss in UK staff and students

Both employees and students (Erasmus or full cycle) from the United Kingdom have currently marginal importance for the Polish system, as well as for the institutions under study. In the systemic context, the Ministry of Science and Higher Education is addressing several grants and scholarship programmes to attract academic staff – the “Polish returns” programme will be launched as part of the NAWA agency, to financially support researchers planning to transfer their research to Polish institutions. A common argument used in the interviews in favour of today's attractiveness of the Polish system is the wide availability of the “state-of-the-art” research infrastructure, built and mostly unused to its full potential.

However, all respondents were fully aware that the relative unattractiveness of regular employment in the Polish system works against the chances of success of all the above-mentioned activities. The representative of the University B leadership shared in this context a bitter but realistic observation regarding foreign employees at Polish universities:

What also worries me is not only that these foreign researchers are scarce in our institutions, but generally that those who come here are not, I would say, front researchers. These are rather people who have either the years of their scientific splendour behind them or

people who are definitely not in the premier league (Interview 7, University B – leader).

11.8.2. Advocacy/lobbying on Brexit

On the side of ministerial officials, there was no wish for specific negotiations related to higher education and Brexit. The officials expressed the opinion that this kind of negotiation could be against the Polish *ratio d'etat*, as Poland could possibly gain something from the new arrangements of the EU research area organised without the UK. As put by one of the ministerial officials:

Looking from a perspective of our interest a specific clause for science and higher education in Brexit negotiations would not necessarily be beneficial, as we have something to gain here, to strengthen the Polish system and our higher education and science are ready for students and researchers' intake, and we can calmly deal without Brits (Interview 3, MNiSW)

Moreover, the representatives of the MNiSW also complained about the complete lack of postulates formulated by the Polish universities with regard to the Brexit negotiations. The Polish academic community's lack of interest makes it difficult for the Ministry to efficiently negotiate or lobby for the benefit of Polish institutions at the EU level.

11.8.3. How high is the confidence in the Brexit negotiations?

Ambiguity and uncertainty as to the direction and the final effect of Brexit negotiations in general, as well as the consequences of Brexit in the context of science and higher education, in particular, were expressed by all respondents. This influenced the way the narrative was conducted during the interviews. Some of the participants formulated their responses in conditional mode: "if it came to hard Brexit, then I would consider X" etc. The overly speculative nature of the study (investigating the consequences of something whose shape is not known to anyone at the moment) also discouraged some of the potential participants in the study, becoming in some cases a declarative reason for refusing to participate in the study. The vast majority of participants did not have any kind of confidence in Brexit negotiations. A good summary of the sober stance on Brexit shared by the interviewees was expressed by one of the ministerial officials:

Let's not get hysterical about Brexit. Great Britain is leaving the European Union, but there are bilateral contacts, and the EU does not have such exclusive competence in matters of science and higher education. This is the domain of the Member States. The EU provides funding, but it does not really have any rights. It seems to me that it will depend on the will of the capitals - whether to continue cooperation or not to continue it at all. And that's it (Interview 3, MNiSW).

12. Portugal: Portuguese case-study. António Magalhães, Amélia Veiga and Maria José Sá

António Magalhães, Amélia Veiga and Maria José Sá, CIPES – Centre for Research in Higher Education Policy Studies

12.1. Overview of research conducted

The Portuguese higher education system is a binary system composed of two subsystems – universities and polytechnic institutes. In each of the subsystems, teaching and research is carried out by public and private higher education institutions (HEIs). Universities offer a more scientific and cultural education, whereas polytechnic institutes are more vocational-oriented. Bearing in mind the different missions ascribed to Portuguese universities and polytechnic institutes, this research studied one university and one polytechnic institute. Moreover, seeking to provide both information and perceptions of two different contexts, the university chosen is an urban large institution (in terms of number of students), whereas the polytechnic institute is an inland small institution, located near the border of Spain. The following section briefly describes each of the HEIs studied, as well as the methodology chosen to collect data.

12.1.1. Brief description of the HEIs studied

University

Located in the Northwest of Portugal, the HEI from the university subsystem studied (henceforth referred to as **HEI A**) was officially created at the beginning of the twentieth century, as a result of the need to increase the small higher education network of that time. It is one of the largest Portuguese universities, in terms of number of students, academic staff and non-teaching staff. According to the institutional information provided, the

... academics' excellent qualification (76 per cent of the faculty and researchers hold a PhD degree) guarantees the high quality of this institution's educational provision, which makes it one of the most sought after universities in Portugal and one with the highest student grades. Every year more than 2,000 foreign students

choose this higher education institution to complete their higher education (Information available on the institution's website).

Currently, the university is one of the 150 best European universities in some of the most important international higher education rankings.

In terms of educational provision, it has a total of over 700 bachelor's, Master's and doctoral degrees, offered in its 14 Faculties/Schools. This university also offers a wide range of advanced studies, as well as several other programmes in the area of continuing education, summer courses and senior studies. Regarding research and development (R&D) activities, the university has 51 research units, which makes it a major producer of science in the country, responsible for over 23 per cent of the Portuguese scientific articles indexed in the ISI Web of Science.

Polytechnic Institute

Located in the Northeast of Portugal, near the Spanish border, the polytechnic institution studied (henceforth referred to as HEI B) was established in 1983, in the period of Portuguese higher education massification. According to the information available on the institution's website, its mission is the creation, transmission and dissemination of technical-scientific knowledge and professional knowledge, through the articulation of study, teaching, guided research and experimental development. This HEI develops its mission in articulation with society, including cross-border cooperation, with a view to territorial cohesion and national and international affirmation, aiming for the development of the region it is located in, based on innovation and on the production and transfer of technical-scientific knowledge. In terms of educational provision, the polytechnic institute offers nearly 80 bachelor's and master's study programmes across its five Schools. As to R&D activities, the polytechnic institute has six research units.

12.1.2. Data collection procedures

After the selection of the HEIs according to the criteria explained above, key actors of both institutions were contacted and asked to identify faculty members/researchers who had connections with the UK in terms of research activities. After that information was provided, the research team contacted these professionals and scheduled the interviews according to their availability. Moreover, the institutional leaders that had functions linked with internationalisation were also interviewed. Table 12.1 depicts the institutional actors interviewed in both institutions.

Table 12-1 [Portugal] Characterisation of the interviewees

	Position	Action area scientific field	Code
National level	Representative of the National Funding Agency (Foundation for the Science and Technology)		1_NL
	Representative of the Ministry of Higher Education and Science		2_NL
Institutional level	Institutional leader	Vice-Rector for Research and Development	3_HEI A
	Institutional leader	Vice-Rector for Cooperation and Culture	4_HEI A
	Institutional leader	Vice-President	5_HEI B
	Academics/researchers	Engineering	6, 7, 8 (HEI A)
	Academics/researchers	Sciences	9, 10 (HEI A)
	Academics/researchers	Management	11 (HEI B)
	Academics/researchers	Director Research Centre	12 (HEI B)
	Academics/researchers	Responsible student mobility	13 (HEI B)

The 13 semi-structured interviews were carried out personally (except for one interview through email and two interviews by phone), following an interview guide provided by the project coordination, which was adapted according to each interviewee's role. The interviews were recorded after the interviewee's informed consent and fully transcribed. The NVIVO software was used to analyse the data collected.

12.2. Present situation: Significance of cooperation with the UK at both national and institutional level

12.2.1. HEI A

Regarding HEI A's internationalisation, this HEI is the most international of Portuguese universities, the result of a strategy that includes cooperation with

hundreds of HEIs from all over the world. Its ambition is to be among the 100 best universities in the world by 2020.

Student mobility

Starting with outgoing mobility, Table 12.2 depicts the mobility of students to other European universities and vocational training centres within the scope of the following programmes: Erasmus Studies, Erasmus Internships, European PhD agreements and *freemovers* in the academic year 2012-2013⁷⁸. The table shows the number of countries, HEIs and destination internship centres in each country, and the number of students who have completed their programmes abroad. In the 2012-13 academic year, 839 students completed these programmes in 215 HEIs and 130 training centres in 25 European countries.

Table 12-2 [Portugal] Erasmus Outgoing Mobility: Countries, no. of HEIs and destination internship centres and no. of students (2012-2013)

Country	HEI	Internship Centres	No. of Students	%
Spain	26	21	191	22.8%
Italy	23	12	118	14.1%
Poland	26	4	72	8.6%
United Kingdom	16	17	55	6.6%
France	19	12	54	6.4%
Germany	18	21	52	6.2%
Czech Republic	9	5	49	5.8%
Sweden	7	6	31	3.7%
The Netherlands	9	9	27	3.2%
Finland	9	2	26	3.1%
Belgium	5	3	23	2.7%
Romania	9	1	22	2.6%
Hungary	8	3	20	2.4%
Slovenia	2	1	15	1.8%
Switzerland	5	5	15	1.8%
Denmark	4	2	13	1.5%
Austria	4	2	11	1.3%
Turkey	3	1	10	1.2%
Slovakia	3	1	9	1.1%
Latvia	1	--	6	0.7%
Lithuania	2	--	6	0.7%
Ireland	2	2	5	0.6%

⁷⁸ Latest available data.

Norway	3	--	4	0.5%
Croatia	1	--	3	0.4%
Estonia	1	--	2	0.2%
Total: 25	215	130	839	100.0%

Source: HEI A – 2012-2013 Internationalisation Report

Most students from HEI A chose Spain and Italy in which to study or do an internship. As for the UK specifically, 6.6 per cent of the students from HEI A chose this country within the scope of mobility in the 2012-2013 academic year. Thus, the UK is in the top five countries chosen by Portuguese students in which to study or do an internship.

As for other regions of the world, Table 12.3 provides a summary of the overall number of outgoing students, including – besides Europe – other regions of the world sought by the HEI A students to have an international academic experience.

Table 12-3 [Portugal] Summary of Outgoing mobility of HEI A students (2012-2013)

Framework	Students	Institutions	Countries
Europe: Erasmus Studies, Erasmus Internships, European PhD agreements and freemovers	839	345	25
North America: cooperation agréments	10	7	1
Central and South America: bachelor's mobility	169	33	5
African Portuguese speaking countries: bachelor's mobility	4	3	2
Other regions of the world: freemovers	5	3	3
Total	1,027	391	36

Source: HEI A – 2012/2013 Internationalisation Report

Regarding incoming mobility, Table 12.4 provides information on the number of students who chose HEI A to study within the scope of Erasmus Studies, Erasmus Internships, European PhD agreements and freemovers in the academic year 2012-2013.

Table 12-4 [Portugal] Incoming mobility in Europe: countries, no. of HEIs per country and no. of students

Country	HEI	Other Institutions	No. of Students	%
Spain	36	5	229	25.7%
Italy	33	4	135	15.2%
Poland	38	8	122	13.7%
Germany	37	--	71	8.0%
France	26	4	51	5.7%
Turkey	12	2	41	4.6%
Czech Republic	7	2	37	4.2%
United Kingdom	13	1	34	3.8%
Romania	8	--	25	2.8%
Belgium	4	3	22	2.5%
Slovakia	6	--	19	2.1%
Greece	4	1	15	1.7%
Finland	5	--	13	1.5%
Lithuania	3	1	11	1.2%
Slovenia	3	1	9	1.0%
Latvia	4	--	8	0.9%
Austria	4	--	6	0.7%
Croatia	2	--	6	0.7%
Ireland	2	--	6	0.7%
The Netherlands	2	--	6	0.7%
Sweden	2	1	5	0.6%
Hungary	1	--	4	0.4%
Bulgaria	2	--	3	0.3%
Estonia	1	1	3	0.3%
Norway	3	--	3	0.3%
Denmark	2	--	2	0.2%
Luxembourg	1	--	2	0.2%
Cyprus	--	1	1	0.1%
Switzerland	1	--	1	0.1%
Total: 29	262	35	890	100.0%

Source: HEI A – 2012-2013 Internationalisation Report

Most students who chose HEI A to study were from Spain, Italy and Poland, which, together, accounted for about 54.6 per cent of European students. Concerning the UK in particular, 3.8 per cent of the students from this country chose HEI A within the scope of mobility in the 2012-2013 academic year. Thus, in terms of incoming

mobility, although the UK is in a lower position when compared with outgoing mobility, it occupies the eighth position.

Regarding other regions of the world, Table 12.5 provides a summary of the overall number of incoming students, including – besides Europe – other regions of the world sought by the students to have an international academic experience in this institution.

Table 12-5 [Portugal] Summary of student incoming mobility to HEI A (2012-2013)

Framework	Students	HEIs	Countries
Europe: Erasmus Studies, Erasmus Internships, European PhD agreements and freemovers	893	297	29
North America: cooperation agreements and Atlantis programme	16	2	1
Central and South America: bachelor's, master's and PhD mobility	854	63	7
Asia and Pacific countries: bachelor's, master's and PhD mobility	21	14	10
Africa: master's and PhD mobility	5	3	3
Total	1,789	379	50

Source: HEI A – 2012-2013 Internationalisation Report

Besides the mobility programmes referred to in the previous Tables, a number of students chose HEI A to attain a degree. The data on students per degree level and region are depicted in Table 12.6. The UK is separated from the rest of Europe for comparison purposes.

Table 12-6 [Portugal] Foreign students in HEI A study programmes by region (2012-2013)

Region	Bachelor's and integrated master's	Master's	PhD	Total	%
Portuguese speaking countries	287	331	274	892	60.6%
Europe	98	103	86	287	19.5%
Asia and Pacific countries	17	57	94	168	11.4%
Central and South America	10	18	33	61	4.1%
Africa	4	22	10	36	2.4%
North America	10	7	5	22	1.5%
United Kingdom	---	4	2	6	0.4%
Total	426	542	504	1,472	100%

Source: Adapted from HEI A – 2012-2013 Internationalisation Report (2012-2013).

The data from Table 12.6 shows that the majority of foreign students in HEI A study programmes come from Portuguese speaking countries, accounting for 60.6 per cent of all foreign students in this institution. As for the UK, only six students came to HEI A to attain a degree, accounting for just 0.4 per cent of all foreign students in this institution.

Researchers' mobility

The data presented in Table 12.7 shows the number of foreign researchers who carried out their studies in HEI A in the 2012-2013 academic year. The numbers include post-doc researchers and other researchers that stayed and worked in the institution for a limited period, always longer than one month. Once again, the UK is separated from the rest of Europe for comparison purposes.

Furthermore, in the academic year under analysis, 22 foreign researchers had employment relationships with HEI A. From these, two were from the UK, accounting for 9.1 per cent of all foreign academics employed in this institution.

Table 12-7 [Portugal] Foreign researchers who carried out their research in HEI A by region (2012-2013)

Region	Total number of foreign students	%
Europe	261	47.6%
Portuguese speaking countries	153	27.9%
Asia and Pacific countries	67	12.2%
Central and South America	23	4.2%
United Kingdom	18	3.3%
North America	13	2.4%
Africa	13	2.4%
Total	548	100%

During the 2012-2013 academic year, HEI A received 548 researchers from all over the world. From these, only 18 came from the UK, accounting for 3.3 per cent of the total of researchers.

Academic mobility

Regarding academic outgoing mobility, in 2012-2013, 88 academics from HEI A participated in several mobility programmes (namely Erasmus, Erasmus Mundus and specific institutional programmes), who visited 69 HEIs from 23 countries around the world. Table 12.8 depicts the countries visited and the number of HEIs and academics per HEI visited.

Table 12-8 [Portugal] Academics from HEI A in international mobility programmes by region (2012-2013)

Region	HEIs	Number of academics	%
Europe	56	77	87.5%
United Kingdom	1	1	1.1%
North America	--	--	--
Central and South America	2	2	2.3%
Asia and Pacific countries	2	2	2.3%
Portuguese speaking countries	8	6	6.8%
Africa	--	--	--
Total	69	88	100.0%

The great majority of academics (87.5 per cent) chose European countries to do their mobility. The UK received only one academic from HEI A, which represents 1.1 per cent of the total of academics engaged in mobility.

In terms of academic incoming mobility, in the same academic year 111 academics from 24 countries around the world visited HEI A within the framework of mobility programmes. The breakdown by region is presented in Table 12.9.

Table 12-9 [Portugal] Foreign academics visiting HEI A in international mobility programs by region (2012-2013)

Region	HEIs	Number of academics	%
Europe	63	100	90.1%
United Kingdom	1	1	0.9%
North America	--	--	--
Central and South America	1	1	0.9%
Asia and Pacific countries	5	7	6.3%
Portuguese speaking countries	1	1	0.9%
Africa	1	1	0.9%
Total	72	111	100%

Similar to what occurs with outgoing mobility, most academics (90.1 per cent) who visited HEI A came from European countries. Regarding the UK, once again only one academic from one British HEI chose HEI A for mobility, which accounts for 0.9 per cent of all academics who stayed for a period in this institution in the 2012-2013 academic year.

Non-teaching staff mobility

As regards outgoing mobility, in the period under analysis there is a low participation of non-teaching staff in mobility programmes. Table 12.10 presents these figures.

Table 12-10 [Portugal] Non- teaching staff from HEI A in international mobility programmes by region (2012-2013)

Region	HEIs	Number of staff	%
Europe	6	8	61.5%
United Kingdom	2	2	15.4%
North America	--	--	--
Central and South America	--	--	--
Asia and Pacific countries	2	2	15.4%
Portuguese speaking countries	1	1	7.7%
Africa	--	--	--
Total	11	13	100%

In fact, in 2012-2013 only 13 non-teaching staff members from this institution engaged in mobility, including two who chose the UK for this experience, which accounts for 15.4 per cent of the total.

In terms of incoming mobility, Table 12.11 shows the number of non-teaching staff members who came to HEI A within the framework of several mobility programmes.

Table 12-11 [Portugal] Foreign non- teaching staff who visited HEI A in international mobility programs by region (2012-2013)

Region	HEIs	Number of staff	%
Europe	49	56	64.4%
United Kingdom	5	5	5.7%
North America	--	--	--
Central and South America	1	1	1.1%
Asia and Pacific countries	4	4	4.6%
Portuguese speaking countries	14	19	21.8%
Africa	2	2	2.3%
Total	75	87	100%

The results showed that the number of non-teaching staff members' incoming mobility was much higher than the number of non-teaching staff members' outgoing mobility. Five professionals from the UK came to HEI A, which accounts for 5.7 per cent of the total.

Foreign academics with a professional relationship with HEI A

Table 12.12 depicts the information on foreign academics with a professional relationship with HEI A in the 2012-2013 academic year.

Table 12-12 [Portugal] Foreign non- teaching staff with a professional relationship with HEI A by region (2012-2013)

Region	Number of academics	%
Europe	37	60.7%
Portuguese speaking countries	9	14.8%
United Kingdom	8	13.1%
Central and South America	3	4.9%
Asia and Pacific countries	3	4.9%
North America	1	1.6%
Africa	--	--
Total	61	100%

A total of 61 foreign academics had, in 2012-2013, a professional relationship with HEI A, eight from which were from the UK, representing 13.1 per cent of the total.

Agreements with foreign HEIs

In the 2012-2013 academic year, HEI A had a substantial number of agreements with foreign universities within the scope of several types of agreements, shown in Table 12.13. The table shows the agreements with HEIs from all regions of the world and specifically with the UK, for comparison purposes.

Table 12-13 [Portugal] Agreements with foreign HEIs (2012-2013)

Type of agreement	Worldwide	%	UK	%
Partnerships and consortia of universities within European and international programs	1,764	68.3%	100	72.5%
Erasmus	527	20.4%	36	26.1%
Bilateral agreements	259	10.0%	1	0.7%
PhD joint supervision and double degree agreements	33	1.3%	1	0.7%
Total	2,583	100%	138	5.3%

From the 2,583 agreements HEI A has with HEIs all over the world, 138 have been established with the UK, accounting for 5.3 per cent of all agreements.

Publications

The information provided refers to the 2003-2016 time span. In this period, from the 16,764 documents produced in international cooperation, 3,265 were with institutions/researchers from the UK, accounting for 19.5 per cent of the total.

The main areas of joint publication are medical sciences, hard sciences and economics. Table 12.14 shows the evolution of documents published in international cooperation and in cooperation, specifically, with the UK.

Table 12-14 [Portugal] Documents published per year (2003-2016)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
In Inter. Coop.	436	515	584	648	764	877	1,040	1,226	1,412	1,596	1,770	1,853	2,020	2,023
In Coop. UK	76	81	105	143	136	157	180	209	255	304	353	373	470	423

%	17.4	15.7	18.0	22.1	17.8	17.9	17.3	17.0	18.1	19.0	19.9	20.1	23.3	20.9
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Throughout these 13 years, the number of joint publications with the UK has always shown a growing tendency, except for 2007. In relative terms, overall there has been a growing trend from 2010 onwards, halted only in 2016.

12.2.2. HEI B

The figures for internationalisation activities in HEI B are, naturally, much lower than the ones in HEI A, due to its much smaller size. However, this institution has an internationalisation programme of recognised success, involving the annual mobility of more than 500 students and 100 academics, as a result of collaboration with several European HEIs (Erasmus programme) and Portuguese-speaking countries.

Student mobility

Regarding outgoing and incoming student mobility, in the 2015-2016 academic year, Table 12.15 depicts the flow of students in the various mobility programmes.

Table 12-15 [Portugal] Outgoing student mobility in HEI B (2015-2016)

Type of mobility program	Number of students	Main destination countries
Erasmus – Study mobility	212	Poland, Romania, Spain, Czech Republic, Hungary
Erasmus – Internship mobility	91	Spain, France, Poland, Belgium, UK
Mobility with partner countries	5	Brazil
Other European mobility	60	
Non-European Mobility	3	Brazil
Total	371	

The UK was the destination for just a small (unspecified) number of students from HEI B for Erasmus internship mobility, in the veterinary nursing study programme, as it is one of the very few countries in the world providing this programme.

As for outgoing and incoming student mobility, in the same academic year the flow of incoming students is shown in Table 12.16.

Table 12-16 [Portugal] Incoming student mobility in HEI B (2015-2016)

Type of mobility program	Number of students	Main origin countries
Erasmus – Study mobility	233	Poland, Spain, Lithuania, Turkey, Czech Republic
Erasmus – Internship mobility	20	France, Denmark, Poland, Italy, Czech Republic
Mobility with partner countries	75	Algeria, Armenia, Azerbaijan, Belarus, Brazil, Georgia, Morocco, Moldavia, Tunisia and Ukraine
Other European mobility	12	
Non-European Mobility	166	Brazil, China, Macao, Georgia, Russia, Mexico, Colombia, Tunisia, Peru, Algeria and Italy
Total	506	

The information provided in Tables 12.14 and 12.15 allows us to conclude that HEI B received a significantly higher number of students than the ones it send abroads in mobility programmes. On the other hand, mobility with the UK is very small, and only outgoing mobility in a specific study programme.

Academic and staff mobility

Table 12.17 presents the numbers of academics and non-teaching staff incoming and outgoing mobility over the 2015-2016 academic year, per type of mobility programme.

Table 12-17 [Portugal] Academics and non-teaching staff incoming and outgoing mobility in HEI B (2015-2016)

Type of mobility program	Number of academics		Number of staff	
	Incoming	Outgoing	Incoming	Outgoing
Erasmus	138*	27	--	28
International Credit Mobility	10	--	19	22

* This number includes Teaching and non-teaching staff.

Research projects

Currently, HEI B has four Erasmus + Strategic Partnership research projects underway with institutions in Italy, Belgium, Ireland, Greece, Lithuania, Romania, Poland, Germany, France, Turkey, Latvia, the Netherlands, Bulgaria, Spain and the UK. In terms of research projects, the cooperation with the UK takes place in only

one of the four projects. Thus, the UK did not show up as a strategic partner for HEI B, as Eastern European countries are.

12.2.3. Perceptions of the significance of cooperation with UK

In the 1970s, the government established a policy of grants to promote the PhD training of a significant number of Portuguese academic staff in Anglo-Saxon countries. This is at the root of teaching and research networks and partnerships mainly in health, bioinformatics, biology, healthcare, nanotechnology, public health. Additionally, the UK is presently the major destination of Portuguese highly qualified migrants and is one of the main destination of Portuguese Erasmus students.

At the national level, the interviewees (1_NL; 2_NL) underlined that most of the potential issues resulting from Brexit depend on the political negotiations between the EU and UK. The main issues that are perceived as a result of a hard solution of Brexit are related to

... the free movement of people, the mobility of academics, students and researchers could be severely hampered. The issue of undergraduates could be further problematic if the UK decides to apply higher tuition fees to European Union's students wishing to study in the UK (1_NL).

When considering research projects funded by national agencies, there is the perception that Brexit will not have major implications. Actually, *"collaboration with UK higher education institutions and research centres will continue to apply under the same conditions applicable to a non-EU country"* (1_NL). However, European citizenship is perceived by 1_NL to be a main concern as it involves the status of UK citizens participating in European networks and nationally funded consortia. At the institutional level, the significance of cooperation with the UK is to be seen in the wider context of institutional internationalisation strategies. Contrary to what happened in the past, presently the UK does not appear as central in the internationalisation institutional strategies of the surveyed HEIs. In contrast, cooperation with Portuguese speaking countries (Angola, Cape Verde, Guinea-Bissau, Mozambique and Sao Tomé and Príncipe, and East Timor, Macau and Brazil) is being enhanced.

From the perspective of HEI A, international education and research activities are based on European mobility and, mainly, on non-European networking and cooperation. In turn, from the perspective of HEI B, internationalisation is a key

strategic cornerstone aiming at building an international student community and the number of non-Portuguese students has already surpassed 23 per cent (5_HEI B). In line with this, European mobility programmes funding non-EU countries and students are being appropriated to diversify the international activities by including countries from Eastern Europe and North Africa.

The perceptions of academics at HEI A, in the field of engineering closely linked to companies, large aeronautical manufacturers or the automotive industry, highlighted that the UK, Germany and France drive decision-making processes at the European level. This makes Portuguese research and innovation international activities depend on research funding allowing for the use of leading equipment and facilities of those countries. Interestingly enough, one interviewee underlined that *“England is greatly benefiting from our training and graduates ..., who are now members of academic staff, and therefore being hired and making their careers in the United Kingdom”* (8_HEI A). This contrasts with the assumption that UK academics’ interest in coming to Portugal is low (6_HEI A). From the perspective of these interviewees, Brexit is more of a political issue, rather than an academic concern. In this sense, they do not see major changes in their teaching and research activities with or without Brexit:

... the academy is much more concerned with the quality of research that is developed than with everything else. From my point of view and from what I have seen, that is what matters (8_HEI A).

In the perception of one academic from HEI B, mobility is also a major strategic driver; however, the UK does not emerge as a preferred partner. Notwithstanding, the specific activities developed with the UK under the framework of Vet Nursery are relevant insofar as it is a strategic degree programme of HEI B. Actually, these activities are recognised by the Portuguese Veterinary Nurses Professional Association *“... and our students choosing to take a supervised internship become automatically members of the Professional Association and can practice the profession”* (13_HEI B). While this cooperation does not involve UK HEIs, but rather veterinary clinics, it raises concerns regarding the possibility of continuing the internships after Brexit. Under the possibility of a hard version of Brexit,

... we turn aside to Ireland because Ireland also has the degree programme making it easier. Of course, we will try other countries in Europe, for example, Latvia. This in spite of the fact that the amount of Erasmus grants is not very high, and internships in

countries like England have been possible as the students were able to go because accommodation was provided (13_HEI B).

12.3. Concerns and opportunities

At the national level, the main concerns about Brexit are associated with the agreements that will be negotiated: the impact may be null in the event of a collaboration agreement between the UK and the EU, or be significant in the event of a lack of agreement. In the perception of the representative of the national research funding agency, *“In this case, most of the partnerships under way will be foreclosed, at least on the same terms as they are today (a reciprocal agreement will always be necessary)”* (1_NL). Presently,

... in these times of uncertainty over the outcome of the BREXIT negotiations, there has already been a significant reduction in the number of proposed partnerships involving UK partners, given the implicit risks that such partnerships might end by the end of March 2019, compromising all the work and the viability of the projects (1_NL).

This perspective on risks involving UK partnerships is also shared at the institutional level by the interviewees at the central administration and academics at the HEI A. Actually, *“even though it is not and cannot be written, I am beginning to realise that people are starting to get a little worried about funding consortia with UK universities when the UK is leaving”* (8_HEI A). Another academic from HEI A added that UK HEIs and research centres with which the interviewee has been involved are also interested in maintaining cooperation and networking with continental European partners (6_HEI A). Additionally,

UK has some difficulty recruiting talent within the UK and have benefited a lot from foreigners working there. If there are some limitations, either in terms of mobility, or at the level of the payment of higher tuition fees ... I think this, for them, will start to be a problem; for us as well because we work a lot with English universities and this can be conditioned (8_HEI A).

12.4. Academic labour/mobility - staff perspectives

At the national and institutional levels, the perceptions are that Portugal is not, with the exception of very few research areas, an attractive destination for top foreign researchers and academics due to weak competitiveness of Portuguese salaries and legal administrative procedures (1_NL; 4_HEI A). In the private sector, where such limitations do not exist, the capacity to hire and attract highly qualified researchers and academics is bigger (1_NL).

With the Brexit process in mind,

There is already a lower demand for the collaborations PT-UK and UK-PT as if the joint work period goes beyond the end of March 2019, only applications for short-term actions ending before date are doable.

Additionally,

If there is no UK/EU agreement after Brexit, the number of EU-level top institutions will be reduced and, to that extent, perversely, Portuguese institutions may derive some benefit from programmes involving intra-EU academic labour mobility (1_NL).

In this respect, the interviewee from the central administration of HEI A pragmatically stated “*It is competition, competition at all levels, and that is what I say, no one is irreplaceable, I do not know whether happily or unhappily*” (3_HEI A), contrasting with the position of an academic staff member at the same university:

There are very strong roots, I would say in my department and here in the Faculty of Engineering, with UK universities that will not get lost with Brexit. It will be harder, but we will not just stop working with them because they decided to leave 8_HEI A).

At the institutional level, even if the number of UK citizens hired by Portuguese HEIs is residual (3_HEI A ; 4_HEI A; 5_HEI B; 6_HEI A; 7_HEI A; 8_HEI A), it appears that there is no concern about developing specific measures to retain academic or researchers from the UK. Anyhow, the idea of having foreign, UK researchers and academics included is widely recognised as an advantage for the quality of research.

12.5. Plans and strategies

At the national level, plans and strategies to deal with concerns about Brexit can be described as expectancy until some clear conclusions about the agreement between the UK and the EU are reached. These perceptions also reflect the fact that funding national agencies managing the mobility programmes are not assuming Brexit is an issue.

At the institutional level, with regard to the strategies to deal with the impact of Brexit, it appears as both a non-issue (4_HEI A; 7_HEI A; 9_HEI A) and a window of opportunity (3_HEI A; 8_HEI A) to look for other partners diversifying consortia and networks. For example, interviewee 12_HEI B, from the polytechnic institution, underlines that new partners from the Mediterranean region should be seen as an alternative given that they share similarities and interests. Notwithstanding, when the impact of Brexit is referred to institutional strategies, the focus is on the funding mechanisms of ongoing and future research and collaboration activities (5_HEI B; 13_HEI B; 6_HEI A). In line with this, one of the concerns is to *“try to guarantee that the future of our research activity will not depend solely on the existing linkages with the UK”* (8_HEI A).

At the national level, the perceptions about the impact of a hard version of Brexit split in two perspectives. On the one hand, the Portuguese strategic positioning of its science and technology systems was historically rooted in strong links with the UK and presently *“In some thematic areas, the UK is even the most preferred for collaboration by the national community (it has consistently ranked first in almost all thematic areas over the last two decades)”* (1_NL). This perspective is also visible at the institutional level (4_HEI A) and by the academics interviewed (e.g., 6_HEI A; 8_HEI A; 5_HEI B).

On the other hand, concurrent changes and trends related to the development of the European Higher Education Area and the European Research Area are promoting a pragmatic approach to funding sources as referred in the section of strategies to deal with Brexit. From the perspective of an institutional leader (HEI A), this pragmatic approach makes the UK a ‘loser’ when compared to what is won by being part of the European scientific system. Actually, beyond financial losses, what is at stake is the weakening of *“collaborations, the multidisciplinary of the collaborations, and we cannot live without them”* (3_HEI A). Additionally, the building of (future) consortia is being designed having an eye on a plan B, i.e., when a UK institution is involved, for

instance, *“instead of three universities, I would choose four ... I would choose four in case the UK is completely excluded, and so I get the same with three”* (3_HEI A).

In spite of a pragmatic approach to cope with a hard version of Brexit, academics from the research intensive institution recognised that it

... will be difficult, in the future it will create difficulties ... that will limit ourselves ... the very strong contacts that have existed for many years with the UK and which we will not be able to leverage as we have in the past to train students and researchers, who were sent to the UK to take their doctorates and which we eventually contracted to strengthen certain areas, are at risk (8_HEI A).

These difficulties are not limited to the development of the scientific system in the field of engineering, but will also influence the partnerships with companies

... that worked with us ... these big companies, the sector that I know best, which is the aeronautics sector, they are very powerful in defining what are the topics of research and may fail to have it in the future, ... and for us this also has implications (8_HEI A).

12.6. Future perspectives

At the national and institutional levels, according to interviewees' perceptions about the effects of Brexit on changes regarding partnerships within the European Higher Education Area and the European Research Area, the diversification of partners to build wider consortia and internationalisation activities will prevail (4_HEI A; 5_HEI B), as already referred to in section 10.4. At the same time, there are UK HEIs that *“have contacted us saying that they do not intend to change their strategy of internationalisation and contacts with Europe”* (3_HEI A).

Notwithstanding, interviewee 8_HEI A expressed the idea that a hard version of Brexit would imply

... a brake the internationalisation strategy [within the EHEA] because if someone is to pay 9,000 pounds of tuition, or more, I do not think that even the national research funding agency will fund this, nor will people have capacity, there will be a clear reduction in demand (8_HEI A).

Depending on the hard or soft features that Brexit might take, the implications for the relationships between the UK and Portugal vary. According to the interviewees, a soft version of Brexit, where a consensus on the stability and acceptance of the principles is already in place, will not bring major changes in the bilateral relationships. In the case of a hard Brexit,

... the UK will be able to participate as any other non-EU country according to the same rules currently in force. Of course, without agreement, a reduction in collaborative activities with the UK can be expected, as the conditions for participation are the same as those applying to 'non-EU', which are less favourable (1_NL).

From his perspective, the EU will remain attractive for students, graduates and researchers, as it “*offers well-funded programmes and has many excellent quality alternatives to UK institutions*”. The institutional leader of HEI B (5_HEI B) also shares this view.

If it happens to be a hard version of Brexit, i.e., if there is no agreement between the UK/EU, UK HEIs will compete at the same level as ‘third countries’ such as USA, Canada, South Korea, Japan, and Australia. In this scenario, “the UK can only enhance its attractiveness with a very significant increase in its own budget for science and research, which might happen in more strategic scientific areas for the UK” (1_NL). From the EU side, this might entail a very significant and competitive funding under the Framework Programme for Research (FP9), thus enhancing competitiveness in attracting academics and researchers (9_HEI A).

12.7. Country-specific issues including transversal questions

There is a consensus that the UK’s scientific and higher education system is one of the most developed and competitive in Europe, and it is important that there is the possibility to keep a tight EU collaboration with UK entities as the UK needs both the scientific system and qualified human resources in the EU and the EU needs the UK (1_NL). Additionally, from the perspective of gain/loss in UK staff and students, there are alternatives emerging from the constraints foreseen in the case of a hard version of Brexit (1_NL; 3_HEI A; 11_HEI B). Interviewees, while underlining that Portuguese speaking countries are emerging as an important niche of international students, researchers and academics to be attracted (5_HEI B), insisted on the need of further intra-EU cooperation. Another transversal issue emerging from the

interviews regards the concern that the discourses on Brexit are impinging on the autonomy pointed out as the best way to achieve what is best for the region, the country and Europe (6_HEI A).

Country-specific questions that emerged are associated with, at the national level, the need to guarantee the freedom of movement for scientists between the UK and the EU (1_NL). At the institutional level, the institutional profiles of HEIs surveyed weighted on their perceptions. At HEI A (university) key points are research, attractiveness, competitiveness, quality, rankings and funding. At HEI B (polytechnic), the key point is associated with the building up of an international community of students based on the fluxes with Portuguese speaking and Eastern European countries.

At the national level, it is clear that a hard version of Brexit will promote a shift from UK-centred partnerships to other leading European higher education and science systems:

If there is no post-Brexit agreement, and if the UK and the EU enter into a competition regime instead of a collaboration regime, the EU system will undoubtedly adjust to greater collaboration between the institutions of the remaining 27 States With a closed door for students and scientists to go to work in the UK ... there will be a demand for institutions from other countries ..., wherever they are located (will vary according to the respective scientific theme). The German, French, Dutch and some Nordic institutions may benefit greatly from a non-EU / UK post-Brexit agreement (1_NL).

Additionally, UK institutions have been assuming a leading position in coordinating EU research projects. At the institutional level, the perception was that

... they had a strong coordination role in many of the consortia and in a project in which I am involved the coordination was transferred to the Netherlands ... people do not know what is going to happen and in applications that are being prepared there is already this reconfiguration (10_HEI A).

However, the historical, scientific and academic cooperation makes the bilateral cooperation between Portuguese and UK institutions still relevant. More specifically, in the field of engineering the perceptions are that

These links do not really depend on policy makers, and there are bonds that exist and have been strengthened for many years; ... I think that from the operational point of view there may be some difficulty in reinforcing them, but they will not be lost because this will not depend on these discussions. This is a parallel thing; it does not depend on the politicians. The ties that we have with universities in the UK have been established through what is our activity as academics (8_HEI A).

13. Switzerland: ‘I don’t really want to go back to the UK anymore’.

Considering academic collaboration in the age of Brexit. Marie

Sautier

Marie Sautier, NCCR LIVES/FNS, University of Lausanne

13.1. Overview of the Research

In 2017, the Centre for Global Higher Education, University College London, launched a cross-national pilot study aiming at exploring the perceived impact of the 2016 Brexit referendum on higher education in Europe.

This is a preliminary report on the prevailing perceptions regarding the consequences of Brexit on European scientific collaboration, from the perspective of Swiss institutions.

13.1.1. Type of institution

The data was collected from September to November 2017 across four different universities in Switzerland; three located in French-speaking cantons, and one in a German-speaking canton. One of the universities specialises in Science, Technology, Engineering and Mathematics (STEM). The other three universities cover a large range of STEM and Social Sciences and Humanities (SSH) scientific fields.

Three of these universities provided data regarding the share of British academics in their total workforce, data relative to students from the UK, and data relative to the scientific collaborations and ongoing international projects between the UK and Swiss universities.

13.1.2. Number of interviews

15 interviews were conducted in total.

13.1.3. Participants' profile

I first interviewed 11 British early-career researchers ranging from young researchers who had just signed a contract associated with a PhD position, to advanced PhD

researchers or post-docs. Most interviews were conducted face to face in the interviewee's working environment, but two of the interviews were conducted through Skype due to geographical distance (one researcher had moved back to the UK) or schedule constraints.

Early-career researchers were interviewed through semi-structured biographical interviews.

Additionally, I contacted four individuals holding, or having held, a management position in academia:

- One vice dean of Research at a leading UK university.
- One Full Professor, a UK citizen, who had previously worked as a Chief Department Head at a Swiss University.
- One Full Professor, a Head of a Department and a Research Institute Director at a Swiss University.
- One Head of research at a Swiss University.

The last four participants were interviewed over the phone or Skype, and through structured interviews.

13.2. Present situation: Significance of cooperation with the UK

13.2.1. UK Students in Switzerland

Two universities located in the French-speaking part of Switzerland (UNI1 and UNI2) and one located in the German-speaking part of Switzerland (UNI3) provided comparative statistics regarding the origin of their students.

At the German-speaking university (UNI3), international students from the UK were defined as students who graduated from a UK university or achieved their university entrance qualification in the UK before coming to Switzerland to study. They represented 1.3 per cent of the international student body at UNI3.

At the first university (UNI1), international students from the UK were defined as students who had completed their secondary education in the UK and were registered at UNI1 in 2016. Students from the UK also represented 1.3 per cent of the total international student population at this university, with 44 per cent of them being female.

At the second university of similar size (UNI2), students from the UK were defined as students holding a British passport whether or not they came to Switzerland for a higher education purpose. These students represented 1.2 per cent out of the total number of foreign (i.e. not Swiss) students, with 35 per cent of them being female.

In both UNI1 and UNI2 cases, women were underrepresented among the students of UK origin studying in Switzerland. At UNI1, only 44 per cent of the international students from the UK were female, whereas females constituted 61 per cent of international students from other countries, and 62 per cent of local students.

At UNI2, only 35 per cent of the UK citizens registered at the university were female, whereas females constituted 55 per cent of students of other foreign nationalities, and 54 per cent of students holding a Swiss passport.

These data are in line with the global OFS statistics collected in Switzerland for the academic year 2016-2017 (OFS 2017). According to the OFS, students of UK nationality represent 1.2 per cent of the total number of foreign students registered at Swiss universities over the last year. A majority of non-Swiss students registered at Swiss universities come from neighbouring countries. They are either German (24.6 per cent), French (15.2 per cent), or Italian (10.6 per cent) (Ibid.). British is the fifteenth nationality represented nationality at Swiss universities (behind German, French and Italian, then Chinese, Austrian, Spanish, Portuguese, Russian, Indian, Greek, American, Turkish, Polish, and Iranian).

In 2015, conversely, only 0.7 per cent of the international students registered at UK universities were from Switzerland (Eurostats 2015), with the three largest origins of tertiary education students being China (21 per cent), India (4.2 per cent), and the United States (3.6 per cent).

13.2.2. International Research Collaboration (FNS Grants)

The Swiss National Science Foundation is the main public Swiss foundation to provide national resources and funding for collective research projects or individual mobility grants.

The following data includes scientific collaborations that took place, as reported by the Swiss National Science Foundation (SNSF) grant beneficiaries⁷⁹, at the end of

⁷⁹ Were included the scientific collaborations of the funded research groups within various projects: FNS Project funding, Sinergia, NRP, SNSF professorships, Ambizione and MHV grants.

their projects (SNF 2017a). Between 2011 and 2016, the SNSF supported 26.602 collaborative projects. 79.7 per cent of the collaborations involved European countries and an additional 13.5 per cent involved North American countries. The UK was the fourth country to collaborate with Switzerland through FNS funded research (1,528 projects which represent 5.7 per cent of the total projects supported by the FNS), behind Germany (13.2 per cent), the United States (11.9 per cent) and France (7.1 per cent).

13.2.3. Researchers' mobility (FNS grants)

Over the same period (2011-2016), the SNFS allocated 4,397 mobility fellowships to support academic workers' stays at host institutions abroad (SNF 2017b). These fellowships were granted to PhDs in Switzerland who were visiting a foreign institution for up to 18 months, as well as to more advanced researchers who aimed to do most part of their postdoc abroad. 15.4 per cent of these mobility fellowships were granted to researchers staying at UK institutions. The UK was the second most popular destination behind the United States (42.6 per cent) and before Germany (7.8 per cent), France (6.6 per cent), Canada (5.3 per cent), and Australia (3.1 per cent) (Ibid.).

13.3. Concerns and Opportunities

The early-career researchers that I interviewed primarily associated the idea of Brexit with a loss of EU research funding for the UK academic workers and their institutions. However, the extent of the potential consequences of Brexit for the UK research system or for their own career was the object of various interpretations.

According to George, who graduated from one of the two most renowned universities in the UK and is now starting a PhD in a Swiss university, the loss of research grants doesn't mean that Brexit will lead to heavy consequences on the future of UK higher education and research. Indeed, Georges describes the contemporary academic world as being, in any case, structurally competitive. In this context, he anticipates a very marginal impact of Brexit on his own post-PhD career trajectory. He remains confident in the quality and wellbeing of the UK research institutions and still sees himself coming back to his country "*after one or two postdocs in exciting places*":

*I wouldn't be put off by the increased competitiveness for funding.
On one hand, I hear that research grants are being lost for science*

in the UK; that must be very bad. But I also think that the UK has got the best universities in the world; I can't see how they would stop producing good science ... As funding decreases for research positions, my chances of getting a research position probably decrease as a function of that. But I'm not worried, and I think the differences are minor.

Georges' way of seeing the future of UK higher education unfolds into a positive narrative that was rather marginal among the people I interviewed. However, just like most of his colleagues, his appreciation of the consequences of Brexit is tied to his political beliefs:

I actually voted for [Brexit]. I got comments [from my colleagues] about Brexit in general and how terrible it was ... I said that, actually, I think it's a little bit terrible but slightly less terrible than the EU.

Similarly, Robert, a post-doctoral researcher who voted in favour of Brexit, remains optimistic about its consequences for the UK higher education system. Specifically, he considers that the supposed consequences of Brexit on the mobility patterns of British researchers need to be put into perspective. Rather than focusing on the potential constraints, he points out how the post-Brexit mobility of UK academic workers may remain relatively easy. According to him, the UK situation can be linked to what can be seen in other non-EU countries highly involved in global science and the international mobility:

There were scientific exchanges before the EU. And they are scientific exchanges between the EU and other countries. I really don't think that it's going to be the same for a British person to come to an EU country that it is for ... Say... a Venezuelan. Where they require quite a formal visa application procedure. I imagine [the new situation] to be more like Norway, Iceland, or Switzerland.

Robert is pessimistic about his chances of getting a position at a UK institution but relates this feeling to the current state of UK research and HE, rather than to the direct effects of Brexit:

It's difficult everywhere. But it's particularly difficult in the UK because they have this Research Excellence Framework that means that every couple of years, your work is assessed by an expert panel that is basically looking at your publications, at your

contributions ... You know ... this pursuit of excellence and so on basically means that you are continually striving to sort of [get new] publications basically. Which is good for people at the top universities with lots of research students and so they have credibility and they get grants and so on. But I think the majority of universities are not, by definition, in the top elite. So it becomes harder and harder to maintain your research because you get in the vicious circle of 'you don't get enough grants and your department asks you to do the teaching. You do teaching that gives you less time for grants, to write papers'. And you lose independence ... You have to work harder ... The higher you get, the harder you have to work, which is kind of the complete opposite of how it is in any other field ...

Thus, Robert describes his past and future career choices as mostly influenced by the location of the work of his partner, who is also in academia, and the academic labour market, that he sees as extremely competitive both in the UK and in Switzerland, irrespective of the Brexit situation. Although Robert plans to move again across European countries in the future, he sees the European Union policies toward the mobility of academic workers as constraining and noxious:

Mobility is shit. The mobility requirement, I hate that. It seems ridiculous that the EU insists on people demonstrating their commitment to their work, by constantly changing locations. That really sucks and it's completely 'anti': anti-society, anti-family, I think. It's in many of the grants ... Even if it's not written. It's implicit; it's good to show that you are not tied to a particular place, that you are constantly kind of searching for the next, the greatest, and the best, and moving around like an executive science robot ... With some grants, it's explicit. It's a general thing to show that you are committed and that science comes first, above all else.

Robert also emphasises how fitting in the mobility requirement and having a very international background may not enhance the opportunity to secure a permanent position in the host country. In particular, he considers that his educational origin may put him at disadvantage to get an open-ended contract in the Swiss academic sector:

I have a chance [to secure a position in Switzerland] but it's a long shot. These positions come out very rarely. Typically, the people who fill the position are very often people who have been in the department, very much networking, and who, you know ... I think at the post-doc level it's very international but when it comes to permanent positions, professorships, it becomes more homophilic, more... you know, frankly, I think it helps if you are Swiss, it helps if you know the way things are done, it helps if you speak French well, it helps if you... like climbing and go hiking and all this stuff ... I mean if you look at the PI list in this department, they are almost uniformly Swiss. A large majority.

13.4. Plans and Strategies

For the early-career interviewees, Brexit often appeared as the key event that led them to reflect on the places where they wanted to live, the career trajectories they were aiming for, as well as their expectations for the future. Some interviewees expressed feelings of shame, disbelief, doubt, or sadness at the Brexit announcement. Those attitudes often came with the resolution to open up the scope of possibilities when choosing their next destination, be it short term or long term. Rory's first reaction to Brexit involved radical considerations:

I don't really want to go back to the UK anymore, or at least that's what I decided when [the referendum] happened that I can't go back. As a kind of petulant response. I thought, perhaps this is not my home.

However, in contrast to one of the leaders who described how the UK was likely to lose its attractiveness and reputation after the Brexit, Rory still sees the UK as a potentially relevant and meaningful destination in relation to his academic field:

Now I just think more about the career than the location. So if it helps my career to go the UK, maybe I will go.

The idea according to which Brexit is likely to make the administrative process of getting a position in an EU country more difficult was controversial among UK early-career researchers: while a few of them remained confident in the opportunity to be hired abroad and to move effortlessly as a non-EU citizen, the anticipation of added

administrative difficulties during the hiring process, the contract renewal, or while travelling, motivated several young researchers to take steps – or to consider taking steps – to get a second EU citizenship.

For instance, two participants mentioned that they were planning on taking advantage of the nationality of their Irish and Scottish grandmothers, a third one thought of getting a new passport based on the French nationality of his ancestor, and a fourth one was confident that he could take advantage of the citizenship he gained by having been raised in another EU country:

I don't think I run the risk of losing my contract as a UK person working in Switzerland... If there is any trouble, I'm gonna turn myself into a Belgian researcher. I have that. I mean that I would use my Belgian passport to assert my rights. I don't think people will not want to hire me because I'm British, that they will discriminate against me. I think the only problem will be a contractual, administrative one. And if it happens, I would go with the Belgian passport. If I didn't have it, I would probably be more afraid because I think there will be a period of uncertainty, of instability. And this is never good for the administrators.⁸⁰

Similarly, Emily is considering applying for Swiss citizenship with the help of her husband, who has dual Swiss-British nationality. She sees this as a strategic decision designed to attenuate the perceived influence of Brexit on her job prospects:

I know in Switzerland, jobs go to the Swiss first, then EU, then everybody else. If the UK is not in the EU anymore, that would be a big concern of mine, but because my husband is Swiss, that would be an incentive for me to consider applying for Swiss citizenship earlier rather than later ... To not be at the bottom of the queue basically.

Finally, some interviewees also mentioned having thought of securing a resident permit in Switzerland, as a strategy to facilitate future hiring, and knowing the Swiss citizenship is more difficult to get.

⁸⁰ Translated from French.

On the contrary, interviewees in management positions considered that hiring people from the UK would not become a real issue, administratively speaking. They were mainly preoccupied by the likely weakening or disruption of international collaborations. However, they demonstrated various opinions about how Swiss academics should or could react to this threat.

For Arnold, the future of scientific collaborations with the UK was likely to be deeply affected in the middle or long term. Arnold describes how the research teams applying for new EU grants may exclude their UK colleagues or postpone new proposals as a realist and pragmatic decision to deal with the uncertainty:

From a personal point of view, nothing has changed. We keep collaborating with our partners. But, of course, after Brexit, there will not be collaborations that come from the Framework Program in Brussels anymore. And this is going to weaken the relations. For example, we have a collaboration between academics in the UK and an [American] partner doing research in [Germany]. We have just finished the EU contract and we will probably not renew it because we will not have a guarantee of participation in the EU scientific program. So, it's clear that we are going to continue the ongoing collaborations ... but for the new projects ... we are not going to start anything new. Because we will not have the money. And no clarity on what is going on. The UK government has not guaranteed, not yet, that we are going to be able to continue the project that is starting now ... We can't start anything anymore.⁸¹

On the other hand, Barbara remained more confident about the future of international collaborations with the UK, although she points out how the will of her Swiss institution to keep developing new relationships with UK colleagues may be limited by the policies of other EU partners:

We encourage our researchers to include the UK partners but there are collaboration projects where you have not only the Swiss and the UK researchers, but other countries are involved as well, so there are factors you really can't control.

⁸¹ Translated from French.

13.5. Future perspectives - Changes in the EU landscape

Several interviewees at management positions anticipated reconfigurations of the landscape of the academic market beyond the UK and the EU as a consequence of the diminishing attractiveness of the UK academic sector:

Our own postdocs are not looking for positions in the UK anymore, and find positions in the EU or in the United States. Which means there are globally fewer positions. Because the UK is not here anymore.

One director of an institute also considers that the UK will lose its attractiveness to foreign students, who will be very likely to see from now the UK as “a poor country, a less interesting place to study.”

Indeed, according to one Director of Research from a Swiss university, Brexit will cause direct and indirect severe loss of financial resources for the UK higher education system. A loss that may not be compensated by an increase in national funding:

Historically, England was a place to develop your career with the aim to go back to Switzerland. I myself went there for years. But it's not a way anymore. Now, it's a no-go for an academic career. Because with Brexit, the pressure on the higher education budget is increasing, because all the industries, like the finance industries, that are going to move to Paris or Frankfurt, are not going to pay taxes in the UK anymore. There, I think, 10 per cent of the global taxes come from these industries that will move out. There will be less money and less money for research. Health services will be prioritised, not the universities. So it's not very interesting to work in a country that is going to have troubles with funding, with hiring...

According to Tim, a research Dean at a renowned UK university, a loss of access to EU research grants may not only constitute a direct loss of financial means, but also a loss in scientific and human resources.

Particularly, [our] university is especially very successful in obtaining early career research grants from the ERC [European Research Council] and the loss of access to that will be deleterious, and, potentially, because of the nature of those grants, and because

we have so many, a considerable threat to the community. I think we have around 150 ERC awards, those award holders are potentially quite mobile because the award is individual and therefore should those people choose to leave the UK – and this would be true for Cambridge, Oxford and Imperial, and other institutions with a large number of awards – they could take this awards with them, take them to Switzerland...

Based on the experience of one of his colleagues in charge of hiring at a prestigious UK university, an academic with managerial responsibilities in Switzerland describes the drop of qualified researchers applying to UK institutions as an ongoing consequence of the Brexit announcement:

I saw that there is a lack of qualified candidates in England. Two years ago there were maybe one hundred, two hundred applicants for a position and now there are only 30 applicants for a similar position ... The UK is not attractive anymore ... For foreign applicants, racism and nationalism are frightening. And for the British, there still is the problem of losing funding and the professional environment... because they lose their international colleagues ... It's my colleague from the Department of ... at Cambridge, who told me how aggrieved he was ... there were only 30 applicants for the position and they were not qualified. Even at Cambridge ... They decided to not fill the position. It's incredible. Two years ago they would have found somebody.

Conversely, a manager based in the UK and managers based in Switzerland pointed out that Switzerland may constitute a preferred destination for the UK academic workers aiming at leaving the country:

Historically, obviously, Switzerland has been a very attractive location for people to work, I mean the salary structure is higher than in the UK, usually. Also, the universities are well funded. So there has been historically a number of eminent British researchers who moved to places like ETH or EPFL to pursue their career [Research Dean based in the UK]

According to Arnold, whose department recently went through a hiring process, this dynamic environment has already grown in the last months:

We recently interviewed people for a position [in Switzerland]. The two finalists come from the UK and Ireland. Even Ireland is impacted by Brexit because the Irish economy is integrated with the British economy. So, this is indirect. But it's not a surprise that the candidates come from these two islands.

Anticipating an increase of highly qualified UK researchers applying for a position in Switzerland, Arnold notes that the phenomenon may be seen as a benefit for the Swiss institutions in search of quality:

Another consequence is that we get very good candidates for the new positions opening in Switzerland because many British don't want to stay in the [UK] system

However, Arnold is mostly concerned about how these reconfigurations can be a curse for local researchers who may experience increasing pressure and reinforced competitiveness in a globalised academic market. In addition, academic workers who are applying for a grant may be more exposed to inbreeding dynamics and uneven decisions based on inter-relational network or scientific conformity:

It's important to have several ways of getting resources to support your research because, in a small country like the UK, you can easily get excluded from national funding. Maybe because of biases, for example because the national council doesn't want to support one individual. If you work in the EU, you always have the possibility to go to Brussels. And the criteria of the EU programs are also different than those of the national ones. So when you have a problem, after you get rejected at the national level, you can still ask Brussels ... To work as a scientist in the UK, it's a monoculture funding-wise. It's rather a small country. In some small academic fields, there may be 20 or 30 people. If you have problems with these people, you may not find any money for maybe one or two years. So, you need several paths to find money. For a researcher, even for a British national living in the UK, you may still not have any funding ... So it may be very interesting to apply for a German, Swiss, European, or even American academic position. Of course, we now have great candidates coming from the UK applying for Swiss positions. Because they don't like that, even at a practical

level, even if they are politically agnostic, they can't find money to support their research. It's more difficult to survive in a monoculture.

13.6. Country-specific issues and transversal questions

13.6.1. Confidence in the Brexit negotiations

For Barbara, a Head of research at a Swiss university, the first consequence of Brexit is to open a period of uncertainty both for the UK higher education system and its collaborators abroad. Barbara's narrative oscillates between the trust she has in the ability and will of the EU to maintain global scientific collaborations and the worry of losing partnerships with the UK in the shorter or longer term.

The fear is a little bit that when the UK partners are no longer eligible to participate in Horizon 2020, then it's a real loss for the community. If they don't get the money from Brussels or if they are excluded from the program, this would be a disaster ... I'm quite confident that the EU commission will find ways of how they can stay in the program. But, in the meantime, there is a time of insecurity and this harms the research in a way that you are all of the sudden no longer sure, when you include UK researchers, how long they can stay in the project. It's really similar to the situation we used to have in Switzerland.

As with several other interviewees, Barbara associates the Brexit situation with the 2014 referendum in which the Swiss population voted in favour of more severe immigration regulation. The vote resulted in heavy limitations of the support provided by the EU to Swiss researchers and institutions (for example, Swiss based students were not eligible to participate in the Erasmus programme anymore), but the loss was soon partially compensated by an increase of state national funding and the implementation of substitute programmes.

Thus, the way the EU cuts happened in the Swiss context was seen by Arnold as a temporary damage that was mostly resolved in the short term thanks to a collective national will and active policies. Although Arnold worries that this will may not happen in the UK situation:

What is happening now with the UK is exactly the same as what happened with Switzerland a few years ago. But with the UK, it's

even worse because there is no political will to change the decision, while in Switzerland it was clear that some politicians wanted to change the decision. In the UK, it's clear that they want to stay outside [of EU.]⁸²

13.6.2. Disciplinary differences

Brexit was particularly seen as a threat for the global quality of STEM research. Indeed, in both Switzerland and the UK, there were research teams that relied on highly expensive equipment and labs that were located in one of the two countries. One former Head of Department in Switzerland mentioned that Swiss researchers may get a more limited access to high-tech labs in bioinformatics and physics at Oxford and Cambridge, among other resources:

I imagine that it is the same in Astrophysics. And they have this huge lab, the Crick Institute; that is opening in London. This is extremely attractive internationally. All of those are resources that European researchers may want to use.

No equivalent worries about access to UK-based infrastructures were expressed by researchers in the humanities or social sciences.

13.6.3. Discrimination

UK early-career researchers reported how colleagues from other countries would show various reactions to Brexit by addressing them with empathetic or negative comments and jokes, by showing incredulity, or pity. Swiss colleagues were sometimes described as more compassionate due to the fact that Switzerland had “gone through a similar process” following the 2014 vote on immigration quotas and the sudden loss of European research funding. Several UK researchers expressed the fact that they felt ashamed of their own country, while other interviewees reported negative comments in relation to their pro-Brexit political opinions. In particular, two researchers expressed how their vote and personal opinions may be misinterpreted or dismissed, in workplaces where people are mostly left-wing:

I actually voted for it. I wouldn't use the word discrimination. I got comments on Brexit and how terrible it was ... People sort of assume that I'm... people often say racist! But it's not racist. The other

⁸² Translated from French.

Europeans aren't a different race. And it's not xenophobic. Or maybe it is a bit xenophobic ... People in this Department are generally quite left-leaning and the Brexit debate they have been exposed to is the very like anti-emigration narrative which is not where I'm coming from.

People are very, very ... dismissive of Brexit. People are very sort of, obviously anti... I'm pro-Brexit, so I'm sort of persona non grata.

13.7. Conclusion

In this report, I have explored the impact of the 2016 Brexit referendum as perceived by a range of British researchers based in Switzerland, as well as by some institutional leaders. Participants expressed a wide range of attitudes and concerns about the impact of the Brexit referendum on local higher education systems, on research collaboration, and on the global academic labour market as well as on their own individual trajectories.

At the institutional level, Brexit was seen as a severe risk for the future of Swiss-British research collaboration. Researchers and institutional leaders expressed their concerns about conducting new projects with UK-based collaborators, pointing to the uncertainty surrounding the Brexit negotiations with the EU as a highly dissuasive component. Participants holding administrative positions anticipated or witnessed a significant rise of UK-based applicants for academic positions in Switzerland – a country that was described as a particularly attractive workplace. At the same time, they stressed a parallel and unprecedented drop in the number of applicants for positions recently advertised at prestigious UK universities. The attractiveness of the UK – a country that has been one of the two preferred destinations for Swiss-based researchers receiving a FNS mobility grant in the last five years – was called into question.

At the individual level, doctoral and post-doctoral participants shared a range of feelings about Brexit.

Some early career researchers who had voted in favour of Brexit continued to believe that the impact of the UK's withdrawal from the EU on the UK higher education system and on their own careers would be limited. They remained confident in the ability of UK top institutions to maintain their leading position in

Europe. They continued to envisage returning to a UK university in a more or less distant future.

However, most of the participants expressed negative feelings toward Brexit; in particular with regards to their own professional and research opportunities and their ability to move easily across borders. They also expressed varying degrees of shame or disbelief toward their own country. Some experienced Brexit as a shock or as a turning point that led them – sometimes along with their partner – to reflect on their future plans and re-assess their chances to get a long-term position in Switzerland or in another foreign country. Finally, attempting to acquire a second European citizenship – often through a spouse or an ancestor – emerged as a common strategy to overcome foreseen difficulties in relation to immigration rights and hiring processes.

Sources:

Eurostats

2015 Share of Tertiary Education Students from Abroad by Country of Origin for the Three Largest Partner Countries, 2015 (per cent of All Tertiary Education Students from Abroad). ET17.

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2017b Fellowships by Host Country. Swiss National Science Foundation Data and Documentation. <http://p3.snf.ch/Default.aspx?id=fellowship>, accessed October 16, 2017.

14. United Kingdom: ‘The impact of Brexit on UK higher education and collaboration with Europe’. Aniko Horvath and Aline Courtois

Aniko Horvath and Aline Courtois, Centre for Global Higher Education, University College London

14.1. Overview of the research

We conducted research at two research-intensive Russell group universities. University 1 is in the top 10 worldwide and University 2 in the top 100 worldwide. Access to University 1 was granted on condition that University 1 remains anonymous; therefore, we decided to de-identify both institutions.

At University 1, interviewees were recruited individually and directly. At University 2, the interviewees were suggested by the central administration and assistance was given in organising the interview schedule.

Staff on insecure contracts were recruited through personal channels at University 1. At University 2, a member of staff helped to circulate our request – explaining that we sought EU staff specifically – and participants volunteered to be interviewed.

We conducted 24 interviews in total, broken down as follows⁸³:

Table 14-1 [UK] Overview of interviewees

	University 1	University 2
Senior management (two out of the 4 are both academics and senior managers)	4	1
Academic staff (permanent)	4	3
Staff on insecure contracts	3	8, including one with previous experience at University 1
Students/Student Union	1	0

⁸³ Aniko Horvath conducted eight interviews at University 1. Giulio Marini conducted seven interviews at University 2; consent to use the data for publication was documented for 4 of these therefore only these four were used. Aline Courtois conducted 12 interviews mainly with staff on precarious contracts at both University 1 and University 2.

At University 1, of the four academic staff members on permanent contracts, three are from non-UK EU countries (one has double citizenship, UK and another EU country; one has a non-UK EU citizenship and has lived in the UK for more than 20 years; and one has double citizenship, from North-America and a non-UK EU country). The Student Union interviewee is from a non-UK EU country as well. The rest of the interviewees – four senior managers and one academic – are all from the UK.

Of the 11 staff members on insecure contracts in the two universities two are from the UK; seven from other EU countries; one is from an EHEA country outside the EU and one is non-EHEA. Two interviewees (one at each university) are UCU representatives with an interest in insecure contracts; they themselves are on insecure contracts. Interviews with staff on insecure contracts were conducted face-to-face at University 1 and on Skype and by telephone for University 2. These interviews lasted from 45 minutes to three hours.

In addition, our report draws from interview data collected by Aniko Horvath as part of a large project on governance in UK universities. This project entailed 82 interviews conducted between December 2016 and October 2017 in 12 UK universities. Six universities were in England and two in each of the devolved nations: Wales, Scotland and Northern Ireland (the data for the two universities and two policy makers in Northern Ireland was collected by Ellen Hazelkorn and Andrew Gibson). In addition, 20 interviews were conducted with national level policy makers and leaders of HE mission groups. The focus of the project was governance but the topic of Brexit was also discussed. The qualitative data on the national level presented in this report comes principally from this project.

Simon Marginson led the funding application and research design, with Aline Courtois and Aniko Horvath. Carolyn Gallop assisted with costing and meetings organisation. Research assistance was provided by Eموke Kilin from April to June 2017. Giulio Marini set up and conducted four of the 24 seed-funded interviews used for this report. Funding from UCL Institute of Education (Seed corn funding 2016-2017) is gratefully acknowledged.

14.2. Present situation: Significance of cooperation with the EU at both national and institutional level

According to THE, the top two universities in the world are British. The UK has 11 universities in the top 100 worldwide.⁸⁴ As such it plays a role in raising the international profile of the EU.

Overall, the UK is a net contributor to the EU budget. Over the period 2007–2013, the UK contributed 10.5 per cent of the total EU income from member states (€77.7 billion) and received 6 per cent (€47.5 billion) of the total expenditure. However, in relation to R&D, the UK contributed €5.4 billion and received €8.8 billion over the same period.⁸⁵

The UK is one of the largest recipients of research funding in the EU. Under the Framework Programme 7, the UK was the second largest recipient after Germany.⁸⁶

6 per cent of students and 17 per cent of staff in UK HEIs are from non-UK EU countries.

Nearly half of academic papers produced by the UK are written with an international partner. Among the top 20 countries UK academics cooperate the most with, 13 are in the EU.⁸⁷

UK universities occupy a unique position as a research leader both at EU level and in the Anglo-Saxon world.

14.2.1. Student mobility

In 2015-16, 81 per cent of students in UK higher education were from the UK. 6 per cent were from the rest of the EU and 14 per cent from non-EU countries.

Figures vary depending on the UK region, from 9 per cent non-UK students in Northern Ireland to 22 per cent in Scotland. They vary by subject area: 37.6 per cent

⁸⁴ Source: THE, https://www.timeshighereducation.com/world-university-rankings/2018/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats

⁸⁵ Source: Royal Society, <https://royalsociety.org/topics-policy/projects/uk-research-and-european-union/role-of-EU-in-funding-UK-research/uk-and-eu-research-funding/>

⁸⁶ Source: Royal Society, <https://royalsociety.org/topics-policy/projects/uk-research-and-european-union/role-of-EU-in-funding-UK-research/how-much-funding-does-uk-get-in-comparison-with-other-countries/>

⁸⁷ Source: UUK, <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2016/parliamentary-briefing-effect-exiting-eu-higher-education-18-november-2016.pdf>

of students of business and administrative studies are non-UK, followed by 32.5 per cent in engineering and technology and 26.4 per cent in law. By contrast, only 6.4 per cent of education students are non-UK.

This varies by type of degree as well. 49 per cent of postgraduate research students in the UK are UK nationals. 14 per cent are other EU and 36 per cent are non EU.⁸⁸

The breakdown of students by EU/non EU status and by undergraduate/graduate status is indicated in Table 14.2. Numbers of EU students are particularly significant at undergraduate level.

Table 14-2 [UK] International students in UK higher education, 2015-2016⁸⁹

	Non UK EU	Non EU	Total international
Undergraduate	82,100	156,185	238,285
Graduate	45,340	154,390	199,730
Total	127,440	310,575	438,010

The top sending countries are as follows:

Table 14-3 [UK] Top 20 sending countries (domiciliary origin), 2015-16⁹⁰

Country		N
China		91,215
Malaysia		17,405
USA		17,115
India		16,745
Hong Kong		16,745
Nigeria		16,100
Germany	EU	13,425
France	EU	12,525
Italy	EU	12,135
Ireland	EU	10,245
Greece	EU	9,790
Cyprus	EU	9,330

⁸⁸ Source: Royal society, <https://royalsociety.org/topics-policy/projects/uk-research-and-european-union/role-of-eu-researcher-collaboration-and-mobility/snapshot-of-the-UK-research-workforce/>

⁸⁹ Source: UKCISA, [https://institutions.ukcisa.org.uk/info-for-universities-colleges--schools/policy-research--statistics/research--statistics/international-students-in-uk-he/#International-students-in-UK-HE-by-domicile,-level-and-mode,-
-European-Union-\(EU\)-\(excluding-UK\)-and-non-EU,-2015-16](https://institutions.ukcisa.org.uk/info-for-universities-colleges--schools/policy-research--statistics/research--statistics/international-students-in-uk-he/#International-students-in-UK-HE-by-domicile,-level-and-mode,-
-European-Union-(EU)-(excluding-UK)-and-non-EU,-2015-16)

⁹⁰ Source: UKCISA, [https://institutions.ukcisa.org.uk/info-for-universities-colleges--schools/policy-research--statistics/research--statistics/international-students-in-uk-he/#International-students-in-UK-HE-by-domicile,-level-and-mode,-
-European-Union-\(EU\)-\(excluding-UK\)-and-non-EU,-2015-16](https://institutions.ukcisa.org.uk/info-for-universities-colleges--schools/policy-research--statistics/research--statistics/international-students-in-uk-he/#International-students-in-UK-HE-by-domicile,-level-and-mode,-
-European-Union-(EU)-(excluding-UK)-and-non-EU,-2015-16)

Saudi Arabia		8,570
Spain	EU	7,840
Singapore		7,540
Romania	EU	7,200
Bulgaria	EU	6,195
Thailand		6,095
Canada		5,980
Poland	EU	5,655

It is estimated that international students contribute £25 billion to the UK economy. In 2014-15, international students contributed £4.8 billion in tuition fees to UK universities, which represented over 14 per cent of total university income. However, 88 per cent of this amount was paid by non-EU students.⁹¹ Still, non-UK EU students paid over £570 million in tuition fees to UK universities, representing almost 2 per cent of the total budget of UK universities.

Both our case study universities were among the top 20 largest recruiters of international students for the year 2015-16, with over 7,000 international students each. University 2 was ahead of University 1 in terms of absolute numbers.

By contrast, UK students are less likely to travel abroad, whether independently or as part of institutional mobility programmes. This results in imbalanced flows in the Erasmus exchange programme, which are particularly visible for student exchange (the UK does better in terms of sending students on Erasmus work placements).

In 2013-14, the UK sent a total of 15,566 students abroad with Erasmus (10,136 for study and 5,250 for work placements). The most popular destination for UK students on Erasmus is France, followed by Spain, Germany, Italy, the Netherlands and Austria. The UK received a total of 27,401 Erasmus students in the same year. It was the fourth receiving country for Erasmus students and the top receiving country for Erasmus work placements.⁹²

As part of the Erasmus programme, the UK sent 2,240 teaching staff abroad (1,689 on teaching programmes and 551 on training programmes) and received 3,597. It was the fourth receiving country for Erasmus staff mobility.

⁹¹ Source: UUK, <http://www.universitiesuk.ac.uk/news/Pages/International-students-now-worth-25-billion-to-UK-economy---new-research.aspx>

⁹² Sources: Erasmus +, <https://www.erasmusplus.org.uk/statistics-and-results-for-erasmus#> and Europa, http://ec.europa.eu/dgs/education_culture/repository/education/library/statistics/2014/united-kingdom_en.pdf

Both our case universities are among the worst performers (bottom 20 per cent) in terms of outgoing Erasmus numbers, compared to other UK HEIs.⁹³

14.2.2. Staff mobility

International staff in the UK

Table 14.4 shows that 17 per cent of UK higher education academic staff are from EU countries outside the UK. This proportion is 6 per cent for non-academic staff.

Table 14-4 [UK] UK higher education staff by geographic region of nationality 2015-16.

	Academic		Non-academic	
	N	%	N	%
UK	139,910	71	186,115	90
Other EU	33,735	17	12,490	6
Non-EU	24,530	12	7,860	4
Total	198,175	100	206,465	100

Source: HESA ⁹⁴

This varies from one subject area to another. The proportion of non-UK EU academic staff varies from 7 per cent in education to 23 per cent in biological, mathematical and physical sciences. The area that depends on non-UK staff the most is engineering and technology (with 19 per cent and 23 per cent of non-UK EU and non-EU citizens respectively) while education and design, creative and performing arts employ principally UK staff (89 and 85 per cent respectively).⁹⁵ HEFCE figures indicate that in 2015, among staff employed at HEFCE-funded HEIs, 17 per cent were from EU countries outside the UK and 14 per cent from non-EU countries, as shown in Table 14.5.

⁹³ As indicated by data sourced from Erasmus +, : Erasmus +, <https://www.erasmusplus.org.uk/statistics-and-results-for-erasmus#>

⁹⁴ Source: HESA, <https://www.hesa.ac.uk/data-and-analysis/staff>

⁹⁵ Source: HESA, <https://www.hesa.ac.uk/news/23-02-2017/departmental-demographics-academic-staff>

Table 14-5 [UK] Nationality of staff in HEFCE-funded UK HEIs.

	N	%
UK	115,740	69
Other EU	28,015	17
Non-EU	23,545	14
Total	167,300	100

Source: HEFCE⁹⁶

The 20 most represented non-UK nationalities are listed in Table 14.6.

Table 14-6 [UK] Top 20 countries of origin for non-UK staff in HEFCE-funded UK HEIs. Source: HEFCE.

	Country	N	%
EU	Italy	4,710	2.8
EU	Germany	4,640	2.8
	United States	3,335	2
	China	3,235	1.9
EU	Greece	2,890	1.7
EU	Ireland	2,705	1.6
EU	France	2,615	1.6
EU	Spain	2,605	1.6
	India	1,955	1.2
EU	Netherlands	1,325	<1
	Canada	1,225	<1
	Australia	1,170	<1
EU	Poland	1,060	<1
EU	Portugal	955	<1
	Iran	720	<0.5
	Russia	595	<0.5
	Japan	520	<0.5
EU	Belgium	505	<0.5
EU	Romania	485	<0.5
EU	Austria	475	<0.5

⁹⁶ Source: HEFCE, <http://www.hefce.ac.uk/analysis/staff/national/>

If universities are separated out, the proportion of non-UK academic staff is 28 per cent (16 per cent non-UK EU and 12 per cent non-EU).⁹⁷

The proportion of non-UK staff is 25 per cent in the Russell Group (to which both case study universities belong). In particular, they represent 39 per cent of academics (a higher proportion compared to the average across the sector) and 48 per cent of staff on research-only contracts at Russell Group universities; and 12 per cent of non-academic staff. Their presence is particularly strong in economics and econometrics, where they represent a staggering 68 per cent of academic staff in these disciplines in Russell Group universities.⁹⁸ The proportion of non-UK staff varies significantly from one institution from another, even within the Russell Group. Institutional websites indicate that non-UK staff represent over 40 per cent of the total academic staff at University 1 and 20 per cent of all staff at University 2.

Mobility of UK-based staff

Almost 70 per cent of active UK-based researchers had worked abroad at some point over the period 1996 – 2011. Among scientific countries, only Switzerland has a more internationally mobile workforce. 21 per cent of UK-based researchers had worked abroad for at least two years over the same period (a third of these within the EU); the UK ranks sixth in this respect.⁹⁹

Co-authored publications¹⁰⁰

Relative to the total UK publication output, the share of international collaboration has risen from 40 to 50 per cent over the last decade. EU co-authorship now represents over 30 per cent of all published UK papers.

The Royal Society notes that collaboration with EU countries has risen more quickly than collaboration with other regions. When papers are co-authored with more than one other country, over half of the UK's collaborative papers now include EU co-authors.¹⁰¹

⁹⁷ Source: The Royal Society, <https://royalsociety.org/topics-policy/projects/uk-research-and-european-union/role-of-eu-researcher-collaboration-and-mobility/snapshot-of-the-UK-research-workforce/>

⁹⁸ Source: Russell group, <https://russellgroup.ac.uk/media/5522/rg-international-staff-june-2017-final-2.pdf>

⁹⁹ Source: Royal Society, <https://royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-research-collaboration-and-researcher-mobility.pdf> (p. 9).

¹⁰⁰ Except when indicated otherwise, the source for data on co-authorship in this section is a 2017 by Jonathan Adams, <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2017/international-collaboration-uk-post-exit.pdf>

¹⁰¹ Source: Royal Society, <https://royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-research-collaboration-and-researcher-mobility.pdf> (p.14)

The country that has co-authored the largest share of UK publications in absolute numbers is the US (13.7 per cent) followed by Germany (7.03 per cent), France (5.09 per cent) and Italy (4.62 per cent). Of the top 20 country co-authors for the UK, 14 are EU countries.

Based on calculations that take into account partner countries' total research output (Salton's cosine), The Royal Society ranks the UK's top 10 EU collaborators as follows: Germany, the Netherlands, France, Italy, Switzerland, Spain, Sweden, Belgium, Ireland and Denmark.¹⁰²

For both our case-study universities, the share of outputs with EU co-authors is between 20 and 30 per cent. It is approximately 5 per cent higher for University 1 compared to University 2.

14.2.3. Research funding

Over the period 2007–2013, the UK contributed €5.4 billion and received the fourth largest share (€8.8 billion) of the €107 billion EU budget for research, development and innovation (€107 billion).

In terms of competitive funding (e.g. ERC), the UK received the second largest share (€6.9 billion) after Germany, out of a total of €55.4 billion over the same period.¹⁰³

The UK was the top performer in the competition for ERC and Marie Skłodowska-Curie Actions. UK-based researchers received 22.4 per cent of the total budget for the ERC grants over FP7 2007-2013 (€1,665 million) and 25.5 per cent of the MSCA's total budget.

The UK hosts high numbers of non-UK recipients of ERC grants. 65 per cent of ERC Starter Grant recipients in the UK are foreign nationals (compared with 36 per cent in Germany). 35 per cent of Consolidator Grant recipients and 26 per cent of Advanced Grants in the UK are foreign nationals.¹⁰⁴

¹⁰² Source: Royal Society, <https://royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-research-collaboration-and-researcher-mobility.pdf>, Figure 3.

¹⁰³ Source: Royal Society, <https://royalsociety.org/topics-policy/projects/uk-research-and-european-union/role-of-EU-in-funding-UK-research/how-much-funding-does-uk-get-in-comparison-with-other-countries/>

¹⁰⁴ Source: Royal Society, <https://royalsociety.org/~media/policy/projects/eu-uk-funding/phase-2/EU-role-in-international-research-collaboration-and-researcher-mobility.pdf>, p. 31.

In addition, the UK hosts the headquarters of six large pan-European research facilities, four of which received significant EU funding (HIPER, laser energy research; ELIXIR, INSTRUCT and ISBE, Biology).

In 2014-2015, 12 per cent of the total research grant and contract income of UK HEIs came from EU government bodies and a further 9 per cent from 'other EU and international sources'. This varies from one discipline to another, with Archaeology receiving 38 per cent of its total research income from the EU. 15 disciplines receive a significant proportion of their research funding from the EU and of these, seven are in the social sciences. Clinical medicine, biosciences, physics and chemistry received the largest sums from the EU.¹⁰⁵

Our two case studies are among the 10 HEIs that received the most income from EU government bodies in 2014-15. They are also in the top 10 for UK government funding.

UUK asserts that EU funding supported 8,864 direct jobs in the university sector and an additional 10,190 FTE jobs outside the university sector.¹⁰⁶

14.3. Main concerns

14.3.1. National level – Policy makers

The concerns of policy makers varied depending on whether they worked in national-level policy making, or in the devolved nations' governments. The two national-level policy makers, one a top-level decision-maker in the Department for Education (DfE), the other a former top-level decision-maker at the Department for Business, Innovation and Skills (formerly BIS; now reorganised as the Department for Business, Energy, and Industrial Strategy – BEIS), highlighted the following issues as their most important priorities:

1. **Sorting out international mobility and visas for HE staff and students.** From their comments, it was clear that collaboration among the different arms of the government around these issues has not gone smoothly; this has proved to be one of the most difficult internal negotiation processes. Political interests and public

¹⁰⁵ Source: Royal Society, <https://royalsociety.org/~media/policy/Publications/2017/2017-05-technopolis-role-of-EU-funding-report.PDF>, pp. 15-17

¹⁰⁶ Source: UUK, <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/economic-impact-on-the-uk-of-eu-research-funding-to-uk-universities.aspx>

commitments of different government individuals have pushed negotiations in very different directions.

2. **Considering the possible forms of continued membership in EU and other international funding schemes and the future of the UK research agenda in relation to the EU.** Some of the key issues they focus on are whether the UK should have formal partnerships with the Horizon 2020 and similar programmes or whether it should focus, instead, on “softer aspects”, such as research collaborations across borders. If the latter focus is chosen, then the questions they see emerging are: Where should the centres and hubs for those be located? What would that mean for researchers transferring between such hubs? How should the free movement of labour be facilitated?
3. Additional questions around HE funding-collaborations with the EU concerned decisions on whether to continue participation in **Erasmus+ and similar EU exchange programmes**. Based on a cost-benefit analysis, they are seen by many in the government as ‘bad deals’ for the UK:

it was supposed to be an exchange programme but we ended up with many more EU students coming into Britain under Erasmus than leaving... it's costing us [huge sums] each year in terms of the students coming in from the rest of the EU.

4. **Intertwining ‘market considerations’ with other priorities**, especially monitoring how the UK’s market share in teaching and research is decreasing compared to European and other English-speaking competitors, as well as the way UK universities should play into the wider, global market.
5. **Re-thinking student funding eligibility rights**, and dealing with the fact that EU students have been allowed to take out UK student loan funding. The two policy makers argued that this issue brings about two pressing questions: How will this type of student financing work after Brexit? How does that interplay with Home Office rules on visas and student loans? In the short term, to maintain stability, DfE and BEIS are focusing on making the necessary commitments that there will be no immediate changes to the system. In the longer term, they are trying to work out what the UK should offer and what it shouldn’t. Equally, they are trying to design a system that can cope with the challenges that have already emerged over issues of high levels of fraud and error around the awarding of student loans and maintenance grants, and addressing the high non-repayment threshold

among students who have moved abroad. DfE and BEIS have made it clear that dealing with such issues is easier being members of the European Union, because there are reciprocal arrangements in place.

6. **Maintaining compatibility with EU (and international) ‘quality regimes’ and keeping the UK higher education system’s interplay with Bologna** – making sure that the UK higher education system is integrated into a common approach across the EU and that degrees hold currency internationally. While they don’t think that Brexit will necessarily impact on that, it’s something that they are conscious of and monitoring closely.
7. Relating to the previous point, they argued that there might be **a move in the EU towards some of the UK’s quality systems of measurement**, such as the Research Excellence Framework (REF) and the Teaching Excellence Framework (TEF). As one of the policy makers put it,

we are quite aware of other countries watching what we are doing with our latest reforms, particularly on TEF, because others have thought about it but no-one’s necessarily taken the plunge in quite the way we have yet.

Policy makers in the devolved nations had additional and/or different concerns than their English counterparts; these issues will be briefly discussed in the last, country-specific section of this report.

14.3.2. National level - UK-wide mission groups

Among the mission groups, there has been a very uneven mobilisation around Brexit, as their priorities vary widely. Some of the largest sector-wide bodies – partly pushed by the government – argue that **the sector shouldn’t be seen as ‘re-moaners’**. So, they claimed, universities should get on board with the changes, see it as an opportunity and finally reach out to places beyond Europe, internationalise their degree courses and help the government design a visa system that works for the higher education sector. One key mission-group leader argued:

Brexit is a threat because we did not articulate what we want under this scenario. We have a global brand. The world is bigger than Europe. Point is somewhere else, not in Brussels.

Many of the UK higher education mission-groups have membership that benefited greatly from the EU’s structural funds and loss of that funding is

thought to be detrimental to some universities, just as it will be for local communities that developed partnerships with universities via those funds. Among the reasons some of these mission groups raised concerns is that they see the **distribution of UK research funding as highly concentrated and tipped in favour of a few large players in the higher education field**, while many smaller universities can't access such funds, even though they do collaborative projects that benefit local communities and the regional economy. In contrast, they see the EU structural funds as distributed in a less concentrated and 'elite university' focused way. As one mission group argued, "*one of the challenges is to get the government to replace EU funding with domestic funding, and then to get them to distribute it in a similarly un-concentrated fashion.*"

Interestingly, as some of the other, research-intensive university mission groups argued, the **EU funding schemes** have also been **used** to the opposite effect, successfully **advocating for a more concentrated distribution of research moneys within the UK**:

we have tried to prioritise merit, so anything that threatens to downgrade merit as the key criteria is obviously met with some concern ... the fact that the ERC grants were very much based on merit ... influenced UK policy to try and retain an emphasis on excellence and merit ... We also used World Bank reports that argued that don't spread your funds too thinly, concentrate on building a few strong institutions. Go for quality as opposed to quantity ... we certainly used that and shoved it in the face of British policymakers.

These research-intensive university mission groups argued that leaving the EU could be detrimental for their members, as there could be a shift away from merit-based considerations in UK higher education policy making, distributing funds in less selective ways.

Finally, concerns of some of the other mission groups focused on the status of EU staff and students and the increase in xenophobia and racism.

14.3.3. Institutional leadership

Top-level university management flagged a series of different issues that are of high concern.

- 1. Loss of European students.** Even in cases where HEIs don't have high EU student numbers, university leaders worried that there will be knock-on effects across the sector, meaning that large institutions that see a reduction in their EU student numbers will 'venture' into new regions (e.g. institutions in the south start stronger recruitment in the north) and into new student recruitment areas (e.g. 'elite' institutions that are losing EU students will take 'disadvantaged' students from smaller institutions under the guise of 'widening access').

Related to this issue, there was concern among institutional leaders and sector bodies as to whether the institutions affected can manage their own decline, to match the decline in student numbers. As a senior manager at University 1 put it,

the question ... in terms of financial sustainability ... is that if you are one of those universities that's relied on growing your EU numbers... then does Brexit constitute the final straw? The question is ... can you manage your decline to match your student number decline? ... In theory you could, if you could sack academics fast enough to match the decline and restructure your degree programmes ... In practice, it's a question whether you will hit a cash crisis, if you've got borrowing as well, based on happier days.

- 2. Future status and retention of European staff, and recruiting new staff from EU countries.** As a senior manager in University 2 put it, "*Our greatest concern is the position and welfare of our EU staff and students.*" Although policy makers often argue that stories about the loss of academic staff have been anecdotal so far, with no real evidence of an 'exodus', our case studies revealed that in some universities staff are headhunted by continental universities, and some non-UK EU nationals – especially those in senior positions and with 'portable' research funding – have already left for EU universities. While it can be argued that the numbers of such senior academics are insignificant, their moves had serious knock-on effects for junior researchers with project-linked contracts (many of them non-UK EU citizens as well), whose livelihoods were lost, often with less than a month's notice. One example in University 1, from a social sciences department, highlighted how such a move left many junior academics in limbo/unemployed:

it was like maybe fifteen different people and there was almost fifteen different solutions, some of them could transfer, some of them didn't want to go, some of the grants weren't portable out of

the UK, some of them were, some of them were twenty per cent ... So we tried to transfer them as much as we could, and help to facilitate their move as much as we could. In the end it was quite a drama, so the senior staff, they go, but it was the junior staff who suffered the most.

3. Loss of administrative, back-office and other support staff in universities. As

a senior manager in University 1 put it,

we, like all the service industries, are reliant on a supply of labour from mainly Eastern Europe. The people who are in our kitchens and our service areas are very well educated, and they are here for all the reasons that the low-pay service industry has got dependent on that source of labour. So, there is a real question whether it's possible to keep the place going without that layer of expertise and experience and attitude ... And this is where we might have to rethink our salary policies, if we want to keep these places going.

4. Loss of access to European research funding, academic networks and universities.

Although universities try and offset these impacts, they think that bilateral agreements (the types universities have with the USA, China, etc.) will not replace the advantages that come with embeddedness in larger networks, as has been the case with Europe. Some of our UK interviewees told stories of their non-UK European partner universities getting “cold feet”, and so UK universities being marginalised or left out of collaborative projects. As a University 1 physics department academic put it, “*from my own experience... people are keen for the UK to participate but they are less keen for the UK to be leading projects*”.

5. Loss of access to the European Regional Development Fund (ERDF) is seen

in most of our case study universities as a threat to their work with local communities and the regions. As one of the Vice Chancellors put it, smaller universities could not break into the UK “research council cartel” but were very successful with the ERDF, being able to develop incubation hubs, engage with small and medium-size companies, support staff and students in being more entrepreneurial, etc. Although they hope that the UK industrial strategy might replace some of that funding, they think that the “market failures” that have such a large impact on some UK regions will not entirely be offset by UK funds.

6. **Some universities are concerned that they will end up as teaching-only institutions as EU research money will dry up** and the already existing inequalities in research funding (and dominance of large research universities) will be further magnified by steeper competition for and reduction in overall amounts of funding.
7. Concerns that **government bodies might consider supporting collaborations only with those EU countries that have the ‘most productive’ research networks with the UK**. As a senior manager in University 1 highlighted,

I’ve heard people say, well if you look at the data for UK, our key collaborators are France, Germany, Italy, Spain and the Netherlands ... so maybe it’s in the best interest of the UK ... to concentrate on where we are getting most benefit and most value, where most of our jointly authored papers are, our joint patents, and stop subsidising the rest ... Now, if you are an accountant, that makes absolute sense, but what that doesn’t actually take account of the non-financial benefits of collaboration in Europe.
8. Discourses around Brexit have led to concerns that **the UK might be perceived abroad as “a really xenophobic country”**. So, to counteract that, as one of the VC’s of a Scottish university put it, “*we are travelling quite a bit to convey the message that we are friendly, we still welcome you*”.

14.3.4. Academics on permanent contracts

Academics on permanent contracts, regardless of their citizenship status, were mostly anxious about issues that were similar to those raised by national level policy makers and institutional leaders. However, in addition, they worried that **Brexit could possibly intersect with and magnify the effects of the restructurings in the UK HE sector** that took place over the past decade (e.g. entry of alternative providers; increased competition under quasi-market conditions; marketisation; increase in academic-industry/business collaborations; increased state and institutional control over teaching/research processes, etc.). There was wariness that **Brexit will be used as an excuse to push further organisational restructurings**, resulting in the closing of academic departments and large-scale redundancies. As one academic – who herself was in redundancy negotiations – argued, academics might not be able to resist further restructurings, as “*the whole system operates on*

our fears and anxieties to implement changes that would have been unimaginable a decade ago”.

Or, as a senior manager in University 1 argued,

it's convenient for management to use Brexit as the excuse for panic, and doing what they wanted to do, but couldn't do it under the proper label... as opposed to a hard, cool, calculation, that says two years from now we are going to be short of twelve million pounds.

14.3.5. Main concerns for academics on insecure contracts

The main concerns for academics on insecure contracts are as follows:

- Concerns for continuity in research funding. A majority of this category of interviewees are post-doctoral researchers who rely heavily on external funding, European or otherwise and are uncertain about perspectives for further funding as a result of Brexit.
- Some expressed concerns for the sustainability and/or quality of research in their respective fields should EU staff leave their institutions.
- Concerns about access to the NHS, child benefits, pensions and easy access to their home countries were expressed. This was particularly the case of one interviewee who was working from abroad (where his family still lives) for part of the year under a flexible work arrangement.
- The nature of the job market for postdoctoral positions is such that some participants had moved from country to country several times before recently taking up positions in the UK. These participants expressed fears that their right to stay in the UK would be threatened on the basis of their recent residency in the UK.
- More generally participants felt that the referendum result meant they were no longer 'welcome' in the UK.

Perceptions of university support were mixed. One participant pointed out that despite the supportive public discourse of University 2, in fact University 2 was not renewing contracts and had announced via an internal email that there would be a recruitment freeze. Staff on insecure contracts felt particularly threatened in this climate.

14.4. Strategies to deal with problems/concerns

Across national, institutional and individual levels there seemed to be agreement that all things related to Brexit change very quickly, and so future strategies will be dependent on the course negotiations take. However, at national and institutional levels a few strategies seem to be emerging. Government representatives and UK HE mission groups

- pushed for stronger internationalisation beyond Europe;
- argued for increasing business-industry-HE collaborations;
- changed emphasis in new funding made available to the sector to support a shift in academic research trends and non-academic engagement (e.g. Global Challenges Research Fund, Industrial Strategy Challenge Fund);
- encouraged universities' stronger involvement with regions;
- highlighted the importance of entrepreneurialism, engagement with guilds, apprenticeship schemes, training and skill development activities, links with the further education sector.

While institutional-level leadership engaged with these national level discourses, they indicated that these narratives are narrowing the debate and diverting focus from the more immediate concerns of the sector. As a senior leader in University 1 put it:

our broad argument has been that... universities are an essential part of society, they absolutely contribute to industry, and the industry strategy contains as its first pillar science and innovation. So, we could be part of trade agreements... but there are many ways in which universities contribute outside of that sphere too.

Thus, while University 1 engaged with such national-level 'agendas', they also endeavoured to have their own concerns included in national debates and policymaking. To be able to do this, they created a set of background offices with the sole remit of focusing on Brexit-related issues. As a result, a network of support departments engaged in data collection and analysis across the university and got involved in national and EU level lobbying, providing evidence to the government, and building alliances with other sector players (mainly universities and mission groups). In addition, within their own institution, they tried to anticipate and prepare

for possible structural changes in UK (research) funding and new collaborations with non-EU players. As one senior manager argued:

There are certain actions that I think will need to be taken at university level ... the UK Global Challenges research fund ... is grand challenge led, and it's interdisciplinary. So, there's a key example of where individuals just seeking money is less likely to be successful than an institutional programme that has got buy-in and support across the place. So, I've set up a group that will steer that for the institution ... the Industrial Challenge Strategy fund may be the same, but we haven't decided whether that's going to require more yet. Second is, in a sense independent of what happens in the EU, but is indicative of perhaps given additional urgency, which is relationships with organisations outside the EU. And that includes business and government examples. How do we build relationships with those? We are thinking about how we seed collaborations with injection of university money, but that's a finite resource, so we'll have to look at what's the best way to do that across the university. And other examples like that will be how do you deal with China? ... We [as most other research universities] get representations every week from state governments ... wanting to have our name and pour lots of money into collaborations. So how do we decide what a strategic aim is there, and how do we support the objectives of the academic divisions to achieve those aims? That's again because of resource, and to some degree because of reputation, something that will need to have a more coordinated university response.

In contrast, University 2 – based on claims made during an interview with one senior management person – seemed to have a less coordinated institutional approach to Brexit, building its 'strategy' primarily on the individual reputation, contacts and skills of their Vice Chancellor:

our university is unusually engaged around Brexit, primarily because we have a vice-chancellor for whom this is a very important issue ... and the culture of an institution reflects the personal perspective of the vice-chancellor, and we have a vice-chancellor who is extremely international in his outlook ... So, the university, even before Brexit, had a particularly international dynamic that had

been shaped by the vice-chancellor. And the academic community, almost exactly a year ago, was going through this period of trying to deal with a seismic shock ... which was a sense that the country had made a decision that doesn't look particularly rational to us ... and the VC here, I think, has been really impressive in the way that he's taken that shock and then used it to drive a response, so rather than saying, you know, this is awful, this is terrible, a much more, 'Let's actually get on the front foot here and be proactive in terms of putting across our message about where we sit'. So I think it is partly, it's partly been a response of the university because of the culture that he's created, but it's partly been that he is just eminently international and has a role that is outward looking and therefore has taken the initiative, and the university has followed.

14.5. Brexit in relation to concurrent changes and trends

14.5.1. Cooperation/competition

Strikingly, when issues of 'cooperation' and 'competition' were raised, most of our interviewees, discussed the topic along a few 'faction lines' that reflected some of the on-the-ground changes and realities in the sector, both nationally and internationally.

- **National level institutional behaviour:** Most interviewees, when discussing the changes Brexit will bring about, feared an increase in competition among UK HE institutions. It was clear, however, that they attributed these changes not to the 'new realities' brought about by Brexit, but by the concurrent changes that stem from the UK government's marketisation agenda. Nevertheless, as they expected Brexit to result in a decrease in resources for which universities can compete (staff, students, funds, networks, business partnerships, etc.) they also predicted a more market-like/corporate behaviour on the part of institutional leadership.
- **National level individual/disciplinary behaviour:** Academics often pointed out that, in the short to medium term, Brexit would lead to the mobilisation of and greater engagement with professional networks and societies, strengthening collaborations within their academic fields in the UK. While these networks were originally mobilised to give a strong voice, visibility and

representation to the interests of a disciplinary field in the government's Brexit negotiations (e.g. physics, humanities, medicine, arts, etc.), it was implied that increased cooperation at the academic level could/might help counterbalance an overall decline in global standing of the respective UK scientific fields.

- **EU/international level institutional behaviour:** When conceptualising competition and cooperation at an EU/international level it was implied that there is a dividing line between institutional interests and behaviour – with universities striving to maintain their networks and non-competitive/collaborative relationships across the continent – and structural realities, where national governments in general, and the UK government in particular, will want 'science' to be the motive force that drives a country's economy and growth, pushing the sector into more global/European competition. Interviews with UK policy-makers seemed to confirm these institutional assumptions, as the language used made clear that one of the government's priorities is to closely monitor UK HE's standing in a 'global competitive arena', engineering change if/when the risks of 'sliding down' materialise.
- **EU/international level individual/disciplinary behaviour:** From the interviews, it seemed that as a result of the strains that Brexit put on the sector, the discursive space in which individual/disciplinary/academic cooperation/competition could be discussed narrowed. Discourses of cooperation/competition across the EU became reflective not of 'realities' (whatever they might be) – where competition/cooperation could co-exist and are constitutive parts of sciences and academia – but of an idealised and value-led framing of a binary: '(good) cooperation' was something that 'always' represented the sector and '(bad) competition' was an externally/structurally imposed expectation by political realities/forces. In this frame, the only way to think about/mention competition was in conjunction with merit-based competition, as 'meritocracy' was perceived as a 'higher-order value'. While at the national level (within UK narratives) this binary was occasionally challenged (e.g. by some of the mission groups and 'non-elite' universities), in relation to EU networks it became the dominant frame.

14.5.2. Casualisation of academic staff and barriers to career progression

As a recently published report revealed, UK universities are staffed by high proportions of staff on insecure contracts.¹⁰⁷ University 1 features among those flagged in the report as having high numbers of staff on casualised contracts. Research indicates that the proportion of non-UK staff is much higher among staff on insecure contracts, compared to staff in permanent positions (Khattab and Fenton, 2016). At University 2, over 40 per cent of Grade 7 research staff are not UK citizens.

While some participants identified as free movers, some were in effect limited in their mobility by their family status. For instance, some had a partner with whom they only shared one language, English, making it difficult to move to a non-English-speaking country as a couple. Reflecting on researcher mobility, participants were generally supportive of it in principle, but most wanted to settle down, as if they themselves had moved 'enough'.

With one exception, the participants on insecure contracts were white. As such, they did not report experiences of overt racism. Eastern-European participants (or partners of Eastern Europeans) were more likely to report xenophobic attitudes (outside the university). Even participants who felt protected by their whiteness, Northern-European origin and/or accent (ability to pass as British), shared an awareness of an increasingly deleterious climate for foreigners – with the university workplace being, to some extent, a protective bubble from the outside world.

The issue of gender discrimination was also raised. One participant in particular commented on the sexist climate pervading UK universities and on the difficulty it posed for women as they strove to progress in their careers – an issue that particularly affected women in precarious positions.

As such Brexit adds a layer of uncertainty to already uncertain career prospects; in a way it brings into sharp relief the other perceived barriers to career progression.

¹⁰⁷ UCU, https://www.ucu.org.uk/media/7995/Precarious-work-in-higher-education-a-snapshot-of-insecure-contracts-and-institutional-attitudes-Apr-16/pdf/ucu_precariouscontract_hereport_apr16.pdf

14.6. Academic labour/mobility – staff perspectives

14.6.1. Non-national staff on permanent contracts

Regarding the nature of the non-UK staffs' concerns, some clear dividing lines emerged:

Citizens/non-citizens

Non-UK citizens' concerns most often revolved around employment rights, right-to-remain, family rights (e.g. partners and children's status, access to healthcare), and the impact of loss of employment on residency and housing rights, benefits as well as rights to access mortgages.

Non-UK academics who already received their UK citizenship were less concerned about the ways Brexit would impact on their working rights, but worried about the quality of their future teaching and research, in case their professional collaborations become limited by lack of access to the large EU research and exchange schemes. However, they were still concerned about the ways Brexit could influence their life quality (increase in xenophobia and racism, their children being harassed at school; being 'cut off' from their parents who lived abroad; loss of value of their savings and assets), and the exercising of their 'global citizenship' rights (e.g. portability of their pension rights).

Structural inequalities that emerged from regional inequalities within the EU and were often reproduced/translated into the UK HE structures

Based on country of origin, there seemed to be a clear divide between the citizens of 'well-to-do (European)' countries and those who came from 'east-central and southern Europe'. Surprisingly, especially in the light of the media narratives that stressed how highly valued European staff are in universities, there were hardly any non-UK academics in senior positions in our sample (this was not due to sample-bias, it rather reflects realities on the ground). The few that there were came almost exclusively from 'well-to-do western' countries (e.g. the US, Canada and Australia, and in Europe from Germany, France, the Netherlands). Some evidence emerged from on-record interviews and off-record discussions that it is much more difficult for citizens of eastern and southern European countries (e.g. Greece, Spain, Romania, Poland, Hungary, etc.) to get permanent positions in higher education institutions than it is for their 'western' counterparts. Justifications for these discrepancies often draw on the principle of 'meritocracy' and are linked to the differential value of undergraduate and PhD degrees awarded by western/eastern/southern HE

institutions, where East-European degrees are viewed as being from 'no-name' institutions. Some argued that there was also a strong negative institutional bias towards 'easterners':

I feel that even the mood has changed... Brits differentiate between different nationalities within the European Union.... And I think Polish, everything Eastern European, this is what even Farage, who is married to a German, says 'you know the difference between German and Romanian, don't you?'... [As a German citizen from western Germany] I haven't had the personal experiences [but] I observe it vis-a-vis other colleagues within the university.

Another issue that emerged was the greater mobility limitations placed on people who come from European countries with 'less-developed' economies and higher education systems, and more unstable political systems (e.g. political shifts in Hungary and Poland, but also in Greece, Spain, etc.) frequently expressed concerns that there is no place to which they are able to safely return and that they would, therefore, do whatever it takes to remain in 'western' academia. In contrast, academics from 'western' countries (and in more senior positions) often argue that they have many options:

I will not apply for citizenship... out of principle ... if I have to leave it's not worth staying, because if someone who has been here for twenty-five years, has taken up responsibilities in this country, is asked to leave, then for me it's not worth staying because the mood in the country ... has changed so much that I don't see any reason to stay. I can find jobs elsewhere, I'm not committed to the country just for the sake of the country ... I was offered a chair in Germany, I was approached by a university in Belgium, I have a second post in Italy and they are making noises, do you want to [move], and so on.

Another point that emerged regarding the east/west divide in terms of structural inequalities was that academics from 'eastern' countries seemed to be more concerned about Brexit and its impacts on their lives. They felt they had more limited financial assets and support from their families than their western counterparts. As a result, they often found it more difficult to 'hang in there' during the early periods of their postdoctoral studies. They also felt more insecure because they thought that their regional expertise and in-depth knowledge of eastern and southern Europe and

its languages were less highly valued in academia, making them more vulnerable to redundancies and limiting their ability to be recruited by other (western) academic systems. Finally, they also felt that because the UK employment market was opened to them much later than to their western colleagues, they had fewer residency years and were more at risk of being refused permanent residency/citizenship. However, this evidence is still anecdotal, and its effects seemed to possibly be diminished by other structural factors (e.g. type of institution, disciplinary field, age, origin of the PhD degree, previous mobility and employment history).

14.6.2. Staff on insecure contracts

The issues that affect non-UK staff are amplified for individuals on insecure contracts.

In the event of a hard Brexit, such staff would be dependent on continuous employment to secure the right to stay in the UK. However continuous employment is not guaranteed for researchers who depend on grants. It is also an issue for those employed to teach on an hourly paid basis, or employed on rolling contracts that do not cover the summer months.

The popularity of the UK as a destination for post-doctoral researchers is due to the availability of post-doctoral research positions and the ability of contract researchers to secure further funding. Several of the interviewees would not have moved to the UK unless they thought there was a reasonable chance of having their contracts extended and eventually securing a permanent position. Should initial grants growing into permanent positions become an unrealistic possibility, researchers contemplating coming to the UK will find such a choice much less appealing.

In addition, staff on insecure contracts tend to be paid less. This makes them financially vulnerable if they lose access to the NHS, to child benefit and other entitlements. Due to the nature of the ECR job market they may not have resided in the UK long enough to be eligible for permanent residency.

Among the 11 non-UK staff interviewed, one had already organised his departure. Another (who had lived in the UK for a number of years) was organising to secure citizenship. The others adopted a 'wait and see' attitude: they were tempted to leave the UK but were 'stuck' due to the lack of opportunities in their home countries and/or due to personal factors.

14.7. Transversal questions

14.7.1. Is there EU/ national advocacy / lobbying on Brexit?

Interviews with HE mission groups and university leadership clearly indicated that there is very strong behind-the-scenes lobbying and national-level advocacy around Brexit. The relationships between mission groups emerged as being fragmented and often tense. So, while the ‘Russell Group’ is often represented more prominently in public debates and the media, some of the other mission groups claimed to have better access to and more impact on government consultations and negotiations. Thus, some argued that their members act as ‘government experts’ because – over the years – cuts to budgets across civil service and government departments meant that the government had to rely to a much greater extent on the expertise of mission groups. This led to the development of a “*slightly narrow, technocratic policy world*”, but also a much larger influence from the sector on policymaking processes.

Of the 14 universities from which data on Brexit was collected, University 1 seemed to be the most active and successful in lobbying across the EU and within the UK, while they also seemed to be the university that engaged most holistically with issues around Brexit. The reasons for this were manifold. Partly, this stemmed from the financial standing, power and reputation of the university. However, and more importantly, it was a result of the university’s long-term engagement and good contacts and networks within policy-making circles in the EU and the UK government. Another important factor was that, right after the referendum, the university allocated financial resources and staff that was able to focus exclusively on national advocacy and ‘strategising’ around Brexit. In the process, their experiences with EU bureaucrats, UK civil servants, MPs and the House of Lords, as well as policymakers in the Department for Education and the Department for Business, Energy, and Industrial Strategy, were mostly positive. Several of our senior management interviewees highlighted that all these bodies were keen to engage with them and use the evidence they submitted. However, as some argued, the Department for Exiting the EU (DEx EU), the key Brexit arm of the government, proved extremely difficult to cooperate with:

The department that I think has been a big frustration has been DEx EU... my interactions with them have been quite sparse, but partly it's that there seems to be a degree of arrogance that we have all the data, there's not much you can tell us, we don't really need your

help... so you know there's a clear disconnect there between the sector and the government negotiators. And that, for me, is a very worrying thing... maybe that's just an unwarranted worry, but I worry that what will end up happening is that in the many, many, big issues that the government needs to negotiate, universities and higher education will be a small ancilla, and even the best intentions, which we can all agree with, will simply get overlooked because there are too many other things to worry about. And I think that will be to the detriment of the long-term interests of the UK in trying to continue to drive a knowledge-led economy.

University 2, while it also engaged in national-level lobbying and advocacy, seemed to be more focused on a few specific issues:

we are lobbying hard as an institution to try to get, first, clarity around the status of our EU staff and students, and second, to ensure that the damage from Brexit, in terms of international student recruitment, is minimised.

As pointed out earlier in this report, University 2's approach was primarily built around the figure of a 'strong leader', that of the Vice Chancellor, limiting to some degree – at least compared to University 1 – the efficiency and impact of such lobbying/advocacy. However, as the academic interviews revealed, there was strong 'grassroot-level' engagement and advocacy taking place within the institution, where academics tried to engage with UK and EU professional bodies to raise disciplinary concerns and advocate for change:

[E]very few months we get together, all heads of physics, at the Institute of Physics in London, and we had a session which involved someone from the Brexit Department who was basically wanting positives and negatives about Brexit. So, we had a session with that poor civil servant, and we basically could think of many, many negatives, and not so much the positives, but we made our views quite clear, and that person then took that back to the Department of Brexit ... I felt that the things which that civil servant was raising indicated a lack of awareness really of the risks ... I don't know whether it was passed on, but we felt that it was important to try and make our view known about the concerns of the negative impact of Brexit on UK physics. We've also had a follow-up meeting where

the head of the German Society, equivalent to our Institute of Physics, came to us, and we had a kind of discussion with him, and the position is that one of our heads of physics goes to an equivalent meeting in Germany to kind of look at what the risks are but maybe what we can do within, sort of Society level to kind of help, mitigate against some of the risks.

Some of the other universities where research was conducted followed a different strategy. Instead of national level lobbying and advocacy, they engaged with local and regional administrative bodies and business/trade organisations, requesting to be included in all regional development strategies, trade negotiations, devolved administration decisions, etc. Their main aims were, first, to create partnerships that would allow them to increase their civil society-business-university collaborations, and second, to have access to and more easily internationalise beyond the EU.

14.8. Country-specific questions and areas of interest

14.8.1. UK devolution

One of the country-specific issues in the UK is the fact that higher education is a (partly) devolved matter, and so most HE related issues fall under the remit of the Scottish Parliament, the National Assembly for Wales, and the Northern Ireland Assembly. Research policies and research funding are still centralised to some degree. Thus, policymakers in the devolved nations had additional and/or different concerns and considerations than those of their English counterparts.

Scotland

In Scotland, the two policy makers we interviewed highlighted some of the following issues:

- 1. Possible loss of EU staff and how to replace them** if visa restrictions were to be introduced. As there is a particularly high concentration of EU staff in certain subject areas in Scotland, e.g. in STEM subjects, various aspects of some fields/disciplines could be hard hit.
- 2. Possible loss of EU students.** In Scotland, because of the favourable fee arrangements for EU students as compared to England, there are a high number of EU students at certain universities and in certain disciplines. In some areas, it was argued, concentrations of EU students are so high, and their transition to the

Scottish labour market is currently so smooth, that not only the higher education sector would be hard hit, but also some areas of the labour market could suffer.

3. Pushing for **different visa arrangements for Scotland**, if the UK takes ‘the hard way’. Some of the models they are considering are in Canada, where different provinces can have different arrangements. One of the policy makers argued that from 2004 to 2008 there was a pilot program in place, called the Fresh Talent Initiative (<http://www.gov.scot/Resource/Doc/47210/0025759.pdf>), that allowed Scotland to have slightly different EU student visa arrangements than the rest of the UK:

the evidence that’s available ... indicates that the program didn’t create a problem in terms of general immigration by the back door, you weren’t having a flood of people coming into Scotland and heading to other parts of England.

Wales

The two policy makers that were interviewed expressed frustration with the whole ‘Brexit process’. They argued that while the Welsh government put together a policy document that could be called *“Brexit, this is what we want - a list of all the things we consider to be important to sustain post-Brexit”* their issue was how strong the UK government will be during the Welsh-UK negotiations and *“the extent to which the Welsh Government will be able to prevail upon the UK Government for some of the money [not paid into the EU budget] to come back into Wales”*.

They saw Wales as more restricted/determined by UK-level policy making than Scotland, because Wales is less able to go its ‘separate way’ as it *“doesn’t have any prospect of independence, like Scotland, so [Theresa May’s government] doesn’t need to keep Wales sweet”*. However, they argued that because of the “centrifugal forces” that push the Westminster government towards allowing more devolution, both outside of England (in the three nations of Scotland, Northern Ireland, Wales) and within England (the push for ‘city-regions’, such as London or Manchester), the combined negotiating power of these devolutionary forces might increase, benefiting Wales as well. Regardless of these processes, in the short-term, they’ve seen the negotiating power of the Welsh HE sector diminished as HE policy makers and institutional leaders are unable to conduct direct negotiations with Westminster, they must go through the Welsh government, *“so, the only way we can influence them is by making sure that they are as well informed as we could possibly get them to be.”*

As a result, the Welsh interviewees mainly highlighted issues similar to those emphasised by national-level policymakers, such as **staff and student mobility, research funding and collaborations**, etc. The only thing they pointed to as a much greater problem in Wales was the likely **termination of the structural funds and the European Regional Development monies** which paid for “*an enormously large amount of PhD and post-graduate training in Wales, but also for a large amount of infrastructure cost of Research and Innovation.*”

Nonetheless, they also claimed that although Brexit will bring about some great difficulties for the Welsh HE sector, “*fundamentally, what’s more of an issue is short-term funding, which is more about the tuition fee policy of the Welsh Government than it is about Brexit.*”

Northern Ireland

The civil servants interviewed in Northern Ireland highlighted the great difficulty of carrying out any meaningful collaborations and/or negotiations, either with Westminster or the other devolved nations, without a Northern Irish government being in place:

the dynamic here has changed given the lack of ministerial cover to actually have a policy position on some of the issues. So, you know, what is our ultimate policy position on Brexit? That’s a matter for a minister as opposed to a matter for a civil servant. So, while Scotland and Wales have pretty defined positions on Brexit, it’s more difficult for us at the minute.

Nevertheless, the key issues in Northern Ireland, they argued, are very similar to those in the rest of the UK:

- **access to international talent, both staff and students**
- **international student and staff mobility**
- **research collaborations and remaining part of EU wide research networks**
- **research funding from EU and its possible replacement with UK funding**
- **Erasmus, Erasmus+**

Three differences which they highlighted were:

1. the fact that **90 per cent of their EU students came from the Republic of Ireland** “*so very much concentrated on one constituent or one country*”;

2. the discussions/**negotiations that started around finding a certain arrangement between the UK and Ireland** relating to common travel, common borders, student mobility, trade, logistics, etc. and how to feed HE concerns and priorities into those discussions;
3. concerns that **post-Brexit there will be an increased risk for people not choosing the UK, and specifically Northern Ireland**, as a destination of choice for HE studies, which would raise serious financial sustainability issues for the higher education sector in Northern Ireland.

14.8.2. Disciplinary differences

While size, location, internationalisation, and balance between teaching and research all seemed to be perceived as bigger risk factors in relation to Brexit than disciplines, data collected for this report shows that disciplines – and particular subfields within disciplines – will be impacted unevenly by the Brexit process. While the data should be treated with some caution, as no comprehensive statistical overview of disciplinary differences are available yet, a few important issues were highlighted by our interviewees:

1. There are larger clusters of EU students and staff in some fields than in others, impacting on the viability of such departments, and having knock-on effects in regional labour markets if the current smooth transition for EU students from study to work were to be disrupted. STEM subjects were most often mentioned, but economics, European studies, modern languages, medical research, and certain areas in social sciences could all be affected.
2. Pressures for disciplines often emerge from different directions; in some cases risks are seen to come from the teaching side and decreases in student numbers, leading to the closing of departments. In other cases pressures emerge from the research side – some departments receive more than 60-70 per cent of their income from research grants. If a portion of that income were to be lost, they might shrink below a viable size and therefore be closed.
3. There was concern that ‘blue-sky’ research will disappear, as that has been largely funded from EU grants, and there might be a stronger push for ‘applied’ research. While some of the disciplines did not see this as a significant change (e.g. fisheries/agriculture in biological/environmental sciences, malaria research and some other fields in medical sciences, some areas in economic geography),

others were highly worried about impacts (e.g. sociology, philosophy, humanities, European studies, languages, but also some STEM subjects).

4. Another concern, raised by a senior management in University 1, was that some EU agencies that are key for UK researchers' global positioning/connectivity will be moved out of the UK:

the European Medicines Agency will move out of London soon and our ability ... to influence regulation will [eventually] diminish and perhaps disappear entirely. And I think people are nervous about that connectivity and that influence. Of course, there are those who say our own regulatory regime will open lots of new opportunities. So, I think it's hard to say.

5. In some of the equipment and resource-intensive research areas (e.g. physics, astronomy, etc.) there were concerns that access to key research facilities located abroad (often outside the EU) will become impossible or require very long wait times. As an academic in University 2 argued,

[W]ithout European funding ... for physics it would be a disaster, and I think the expectation is that if we lose access to European funding and networks, in the near future, it will be a real disaster, a challenge for high cost subjects like physics...

6. However, there were also concerns in/for disciplines that are traditionally seen as less 'resource-intensive'. As the Head of Research in University 1 argued, humanities researchers in the UK, and in their university in particular, were quite successful in receiving EU funds. They see funding in these fields becoming more challenging if they have to rely on UK funding only:

[I]t's always hard to raise research money in the humanities ... People generally say it's a lower cost field and certainly that's true, that you don't have to have laboratories, but you do have to have libraries and digital resources and other things, so it's not cost free ... And I think what we are already seeing is change in culture in humanities ... we are seeing an increased appetite for external engagement in creative ways, with external organisations that may be NGOs, may be charities, may be other entities, that can help engage in research, define research, support research ... And I think we are keen to be able to demonstrate and articulate how

humanities and social sciences do contribute to the national good. Even in economic terms, but also in other ways, about being a healthy society.

7. Brexit has been used by universities as a justification to implement long-postponed restructurings. This, in turn, affected some departments much more than others – e.g. in the fields of arts and humanities, as well as in social sciences, where there seems to be much larger scale redundancies than in STEM or business-related subjects.

15. Appendix 1. Indicative interview questions

Topic guide A

- Among your international partnerships and activities (both EU and non-EU), which are the most important to your institution? (Fw: income / strategic positioning / institutional identity)
- What determines the balance of activities inside versus outside Europe?
- In what fields are international partnerships and engagement the strongest/the most beneficial?
- What are your main concerns regarding the impact of Brexit on your institution/department? (Fw: impact on formal alliances / collaborations / funding / staffing / programmes / research / student recruitment)
- How do you plan to compensate for the main Brexit-related problems you foresee emerging? (Fw: Steps already been taken; plans for new markets)
- How do you engage with the government and sector bodies to communicate your university's concerns and influence decision making? (Fw: Main demands to government)
- Do you expect to see an increase/decrease in competition between countries and HE institutions? (Fw: Competition or cooperation)
- What are the benefits of having international staff for your institution? (Fw: for institutional image)
- In your opinion, what draws non-national staff to apply for work at your institution? (Fw: recruitment of students as staff;
- Any sign of an 'academic exodus'? / increased volume of applications from the UK? (Fw: How many non-UK workers can you afford to lose? If immigration rules will be very strict, will you be able to replace with local graduates?)
- What steps has your institution taken so far in relation to EU staff retention? (Fw: How could your institution support non-UK workers? Would you consider hiring UK candidates / non-EU candidates instead of EU candidates?)
- How could the UK/your university remain attractive as a destination for staff?

Topic guide B

- Current employment situation and citizenship/residency status
- Employment and migration history
- Non-national status and field/institution
- Impact on Brexit on your current situation
- Future prospects

16. Appendix 2. Case study report template

1. Overview of research conducted

- Type of institution
- Number of interviews
- Participant profile (national level / management / academics (senior) / temporary)
- If applicable: other research incorporated e.g. previous projects

2. Present situation: Significance of cooperation with the UK at both national and institutional level; to include perceptions and available data:

- Significance of cooperation with the UK (as such as well as in relation to other partners) / in research, in education, student and staff mobility, other areas as applicable
- Density of networks (to include financial impact, reputational impact, formal and informal networks)
- Background statistics (indicative list)

- Erasmus staff and student numbers from/to the UK
- Other internationally mobile students from the UK out of total number of international students (at each institution and if available, nationally)
- Other internationally mobile staff from the UK and out of total number of international staff (at each institution and if available, nationally)
- Staff with UK qualifications
- Number of H2020 projects involving UK partners
- Other research projects / other funding received jointly with UK partners
- Joint publications with UK partners
- Joint / double degrees with UK institutions

3. Main concerns / opportunities

- National level

- Institutional level - leaders
- Institutional level - academics (Nationals/non-nationals/temporary?)
- Silences

4. Plans/strategies to deal with problems / concerns

Including partnerships, new regions, recruitment plans

5. Brexit in relation to concurrent changes and trends

- Cooperation/competition
- Internationalisation
- Ideas about the future of HE (national level) – teaching, research, innovation
- To what extent does the impact of Brexit correspond with concurrent changes at national and regional levels?

6. Future perspectives

- Effect on attractiveness of EU research
- What are the implications for EU initiatives, such as the EHEA and ERA?
- Changes in the EU landscape – in terms of partnerships and mobility

7. Academic labour/mobility – staff perspectives

- Non-national staff
- (Issue of staff on insecure contracts)

8. Transversal questions

- Gain / loss in UK staff / students
- Is there EU/ national advocacy / lobbying on Brexit?
- How high is the confidence in the Brexit negotiations?
- Link between discourse and practice and how do we find out?

9. Questions that emerged / country-specific questions or areas of interest

- e.g. disciplinary differences
- Links to / shift towards other regions

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