

REPUTATIONAL IMPACTS OF INTERNATIONAL RESEARCH AND INNOVATION

Professor Muthu De Silva
Dr Maryam Ghorbankhani

Birkbeck, University of London

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5.1. UK's bilateral funding programmes

The UK generates a strong reputation for collaborative R&I through its strategic bilateral funding agreements with countries such as Australia, Brazil, Canada, Germany, Japan, Luxembourg, Norway, South Africa, South Korea, Switzerland and the USA. Government, funding agencies, and other related stakeholders are developing mechanisms to enhance bilateral collaboration. The agreements facilitate the exchange of knowledge and expertise through forums, specialist workshops, and conferences. They are also focusing on the bilateral development of new products, services, technological processes, business development opportunities, and societal value. Additionally, independent impact assessment agencies are being commissioned to conduct evidence-based assessments of bilateral agreements. These bilateral agreements result in enhancing the reputation of the UK as a trusted and reliable partner for co-funding, and a leader in bilateral collaboration for research, technology, and innovation, driving technological advancements, economic growth, entrepreneurialism, and addressing global challenges. The generated reputation results in financial, relational, resource, research, innovation, political, social and environmental impacts [Figure 5.1].

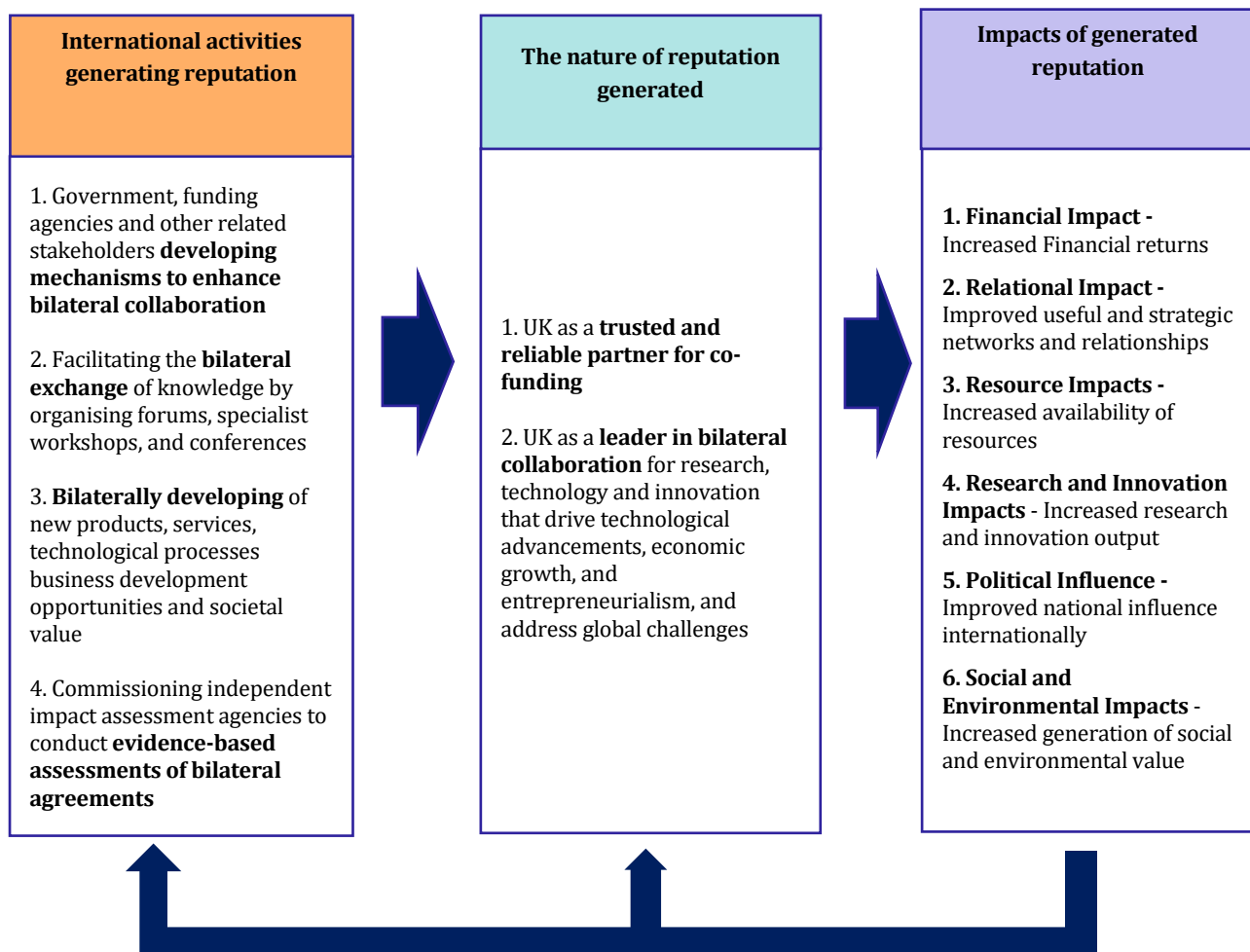


Figure 5.1: UK's bilateral funding programmes generating reputational impacts

5.1.1 International activities



Government, funding agencies and other related stakeholders developing mechanisms to enhance collaboration

Through bilateral agreements, the UK and UKRI engage in discussions with various international actors to improve funder-to-funder partnerships. These international partnerships allow UKRI to develop collaborative research and innovation funding programmes addressing global challenges and boosting economic growth. Examples of such international collaborations include Lead agency agreements with Sao Paulo Research Foundation, Luxembourg and Science Foundation Irland. UKRI's Arts and Humanities Research Council (AHRC) is collaborating on eighteen projects with the German Research Foundation (DFG), supported by a £6 million joint-fund. UKIR supports international collaboration teams under the Lead Agency Agreements providing a framework for joint peer review of proposals by two funding agencies in different countries. For example, the National Science Foundation (NSF)

in the US and the Engineering and Physical Sciences Research Council (EPSRC) of UKRI in pursuit of their international collaboration and through the NSF-EPSRC Lead Agency Agreement, aim to promote transatlantic collaborative research by creating mechanisms that reduce barriers researchers may encounter when conducting international research.



Facilitating the exchange of knowledge by organising forums, specialist workshops and conferences

Depending on the focus, bilateral agreements aim to foster knowledge exchange among companies and research organisations in the countries involved. Since these bilateral agreements consider the unique strengths and characteristics of businesses, research organisations and other stakeholders of both countries, greater complementarity is achieved. Another key aim of bilateral agreements is to facilitate the exchange of knowledge and expertise by organising forums, specialist workshops, and conferences. For instance, the UKRI's collaboration with North America includes organizing talent and mobility opportunities, such as exchanges and networking schemes for doctoral students and researchers. This fosters the exchange of knowledge and expertise between UK and North American institutions, enhancing the research capabilities of both regions.



Developing new products, services, technological processes, business opportunities and societal value

Bilateral agreements also support the joint development of new products, services, processes and commercial output. For instance, the UK-China collaboration has resulted in the development of rapid COVID-19 testing solutions and research to reduce antibiotic-resistant diseases. Additionally, UKRI-supported projects in China have produced over 100 intellectual property outputs and created 24 UK spinout companies, demonstrating the tangible commercial outputs of these collaborations. Projects funded under the SNSF-UKRI partnership include developing a new tool for eye imaging and sustainable solutions for circular plastics, showcasing innovation and commercial output.

UKRI's collaboration with the US and Canada has led to investments of over £3 billion, opening doors to new collaborations and leveraging funding from outside the UK. These collaborations have not only supported the development of new technologies but have also contributed to economic growth and societal benefits in both regions. Bilateral relationships between UKRI and Brazilian National Councils have been strengthened through significant projects such as a flagship climate science initiative in the Amazon region and research expeditions aimed at enhancing understanding of the Amazon's biodiversity and socio-cultural diversity. Other examples of funder-to-funder collaborations include UKRI's collaborations with the Swedish Research Council, the Wallenberg Foundations and a number of universities, as well as the

Research Council of Norway (RCN). These efforts aim to enhance collaborations in addressing global challenges.

These collaborations empower researchers to conduct studies on topics of international significance, spanning a diverse range from land ownership and post-industrial marginalization to new insights in fields such as computing, medical sciences, and poetry responding to historical scientific developments. Additionally, other projects address emerging strategic challenges, such as promoting international justice through historical exploration and learning.



Commissioning independent impact assessment agencies to conduct evidence-based assessments of agreements

The outcomes of these agreements are often reviewed independently. Such reviews are important to further improve the relationship. UKRI India's impact on enhancing the UK-India research and innovation relationship has been independently evaluated by Elsevier. The assessment highlights the significant outcomes of UKRI India-funded projects, including their contribution to publications, development of technical products, and overall enhancement of the research ecosystem in both countries. These reviews offer recommendations for enabling funding, developing partnerships, deepening R&I, and ensuring the effectiveness of UKRI's international collaborations with the aim of maximizing the value of public funding, demonstrating the economic, technological, and societal impacts of UKRI's bilateral collaborations.

5.1.2 The nature of the generated reputation



UK as a trusted and reliable partner for co-funding

Successful engagement and delivery of these bilateral agreements have proven the UK to be a trusted and reliable partner in multi-million collaborative R&I projects worldwide. UKRI's partnerships with funding agencies in Sweden, and its partnership with India- supporting 260 projects and funded by fifteen funding agencies are just a few examples that demonstrate the UK's strong reputation as a trusted co-funder of international projects addressing the mutual interests of countries and common global challenges.



UK as a leader in bilateral collaboration for research, technology and innovation that drive technological advancements, economic growth, and entrepreneurialism and address global challenges

The joint efforts in multiple bilateral agreements with countries with complementary knowledge, skills, resources and networks further demonstrate the UK's commitment to

tackling global issues through collaborative R&I. The broad range of international projects with a specific focus on country-specific strengths, social and economic needs, aspirations, and impacts underscore the UK's commitment to driving economic prosperity, social well-being, technological advancement, and competitiveness both at national and international levels. Successful collaborations and the development of new technologies and products highlight the UK's supportive environment for innovation and entrepreneurship.

For instance, the UKRI - India agreement has facilitated funding commitments of close to £400 million, supporting over 260 projects. These projects have generated an additional £450 million in further funding, mainly from public bodies, non-profit organizations, and commercial entities. The willingness of other funders to invest shows how the enhanced reputation of the UK and associated partners owing to the bilateral collaborations, developed trust and confidence, a reflection of the UK as a leader in international collaboration for developing R&I.

5.1.3 The impacts of the generated reputation

Table 5.1: Impacts of reputation generated through UK's bilateral funding programmes

Types of Impact	Specific Impacts
1. Financial Impact - Increased Financial returns	Enhanced business developmental opportunities for businesses of all sizes Enhanced access to funding and foreign investment
2. Relational Impact - Improved useful and strategic networks and relationships	Enhanced opportunities to access, strengthen, collaborate with, and/or develop new, useful local, regional, national and international networks
3. Resource Impacts - Increased availability of resources	Improved access to, and/or develop new, knowledge, expertise and resources
4. Research and Innovation Impacts - Increased research and innovation output	Improved opportunities to engage in larger international projects to innovatively develop new products, services and technologies for local and global markets
5. Political Influence - Improved national influence internationally	Strengthened bilateral relationships and trust between the UK and other nations, improving the UK's political influence
6. Social and Environmental Impacts - Increased generation of social and environmental value	Enhanced opportunities to jointly address mutual social and/or environmental challenges through bilateral R&I

Case Study: UKRI in North America Bilateral Funding Agreement

The UKRI in North America Bilateral Funding Agreement facilitates collaborative research and innovation projects between the UK and North American partners, leveraging mutual strengths to address global challenges and drive scientific advancements.



International R&I activities:

The breadth and scale of UK partnerships with North America have played a vital role in advancing institutional and individual research and innovation, from foundational partnerships to transatlantic careers. Since 2015, UKRI has funded around 3000 awards involving collaboration with North America, with over £3bn of investment which has opened doors to new knowledge and leveraged funding from outside the UK. UKRI has a crucial role to play in ensuring these valuable connections and collaborations can flourish.

The UKRI North America Office developed the first MoU on Research Cooperation with the US National Science Foundation in 2013. This MoU created the underpinning conditions for increasing collaboration between the two agencies, including Lead Agency opportunities, with a simpler application process enabling hundreds of talented researchers to collaborate on cutting-edge fundamental research. The UKRI North America Office, with staff based in Washington, DC, and Ottawa, plays a pivotal role in catalyzing and connecting to ensure partnerships deliver ever-increasing impact. Often drawing on UKRI NA Office networks, to date there have been around 100 collaborative research programmes supporting many research awards worth hundreds of millions of pounds, providing UK and US researchers with funding to address shared priorities across a vast range of research topics.

Over the past 15 years, the UKRI NA Office has enabled collaborations with over 50 funding partners across the US and Canada, and by extension with hundreds of US and UK universities. This network includes but is not limited to Federal Government departments, funding agencies, research institutes, and laboratories with hundreds of millions of dollars (US and Canadian) in annual budgets and hundreds of thousands of employees.

UKRI continues to engage across all disciplines and sectors in outstanding programmes with North American partners.

The activities associated with the joint agreement range from a longstanding collaboration on the Ecology and Evolution of Infectious Diseases, especially pertinent given the COVID-19 pandemic, to creating the conditions for future connections and emerging research areas such as International Summer Schools on quantum technologies. The joint agreement continues to scale up strategic engagement in global challenge areas, supporting UK government priorities. By building on this successful bilateral engagement, the UKRI recently joined US and Canadian partners in two major multilateral initiatives on clean energy and climate change, with a total of ~£25m UK investment, alongside an additional ~£60m from North American partners.



The nature of reputational impacts generated:

This bilateral agreement has increased trusted research partnerships. The reputation developed through the agreement and associated activities of the mutual understanding of each other results in a significant and long-term investment of time and resources in creating new streamlined, flexible, and responsive models for transatlantic research, through a combination of core funding, the Lead Agency mechanism and additional funding streams. The physical presence of the UKRI NA Office has resulted in in-person interactions essential for deep networks in both North America and the UK, and a deep understanding and trust of the research landscape and funding mechanisms across jurisdictions, essential for UK's reputation building as a reliable partner for co-funding.

Source: <https://www.ukri.org/wp-content/uploads/2023/06/UKRI-09062023-Digital-9266-North-America-Impact-Assessment-TC-V4.pdf>

References

Evaluation of the Fund for International Collaboration (FIC). Interim Impact Evaluation Report. (2023).

Available at: <https://www.ukri.org/publications/fund-for-international-collaboration-fic-interim-impact-evaluation-jul-2023/>

Swiss National Science Foundation (SNSF). (2003). Available at:

<https://www.snf.ch/en/X1KnbbGgoPsJUVOH/news/launch-of-thirty-projects-thanks-to-switzerland-uk-collaboration>

UK-India: Partnerships for Growth with Research and Innovation.

Available at: <https://www.ukri.org/publications/uk-india-partnerships-for-growth-with-research-and-innovation/>

UK Innovation and Research (UKRI). (2024). UKRI Brussels. Available at: <https://www.ukri.org/what-we-do/international-funding/our-international-offices/ukri-Brussels/#contents-list>

UK Innovation and Research (UKRI). (2024). UKRI China. Available at: <https://www.ukri.org/what-we-do/international-funding/our-international-offices/ukri-china/#contents-list>

UK Innovation and Research (UKRI). (2024). UKRI India. Available at: <https://www.ukri.org/what-we-do/international-funding/our-international-offices/ukri-india/#contents-list>

UK Innovation and Research (UKRI). (2024). UKRI North America. Available at: <https://www.ukri.org/what-we-do/international-funding/our-international-offices/ukri-north-america/#contents-list>

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About the Innovation and Research Caucus

The IRC supports the use of robust evidence and insights in UKRI's strategies and investments, as well as undertaking a co-produced programme of research. Our members are leading academics from across the social sciences, other disciplines and sectors, who are engaged in different aspects of innovation and research system. We connect academic experts, UKRI, IUK and the ESRC, by providing research insights to inform policy and practice. Professor Tim Vorley and Professor Stephen Roper are Co-Directors. The IRC is funded by UKRI via the ESRC and IUK, grant number ES/X010759/1. The support of the funders is acknowledged. The views expressed in this piece are those of the authors and do not necessarily represent those of the funders.

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