

REPUTATIONAL IMPACTS OF INTERNATIONAL RESEARCH AND INNOVATION

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4.3. UK's interactions with global R&I forums

The UK's reputation in R&I is significantly enhanced through a variety of strategic activities that engage global research forums and stakeholders. Through the UK's engagement in global forums, the UK is actively funding, raising awareness, and shaping activities across strategic arenas with major geopolitical players. Additionally, the UK engages in global forums through its international presence, ensuring a robust and collaborative global presence and associated international R&I support. Due to these interactions, the UK is recognized as a thought-leader and influencer in the global R&I landscape. Additionally, the UK's leadership in global forums makes the UK a committed and exemplary member of the international community, consistently contributing to and shaping global R&I initiatives. The reputation leads to generating financial, relational, resource, research, innovation, political, social, and environmental impacts (Figure 4.3).







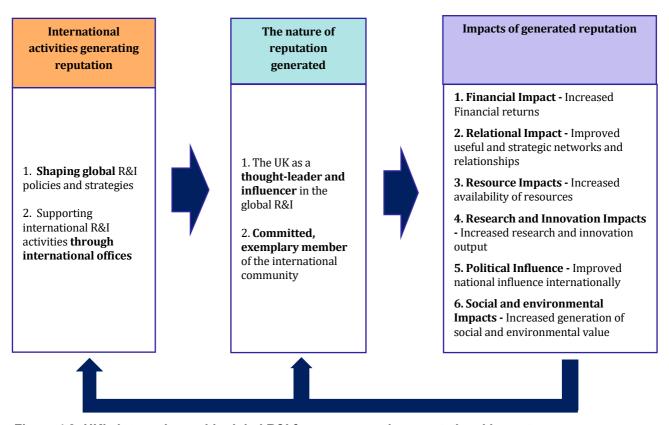


Figure 4.3: UK's interactions with global R&I forums generating reputational impacts

4.3.1 International activities



Shaping global R&I policies and strategies

In global R&I forums, the UK engages in shaping global R&I policies and strategies by fostering dialogue, raising awareness on critical issues, and influencing global R&I agendas (Science & Technology, 2024).

The UK has played a significant role in the Global Research Council (GRC), a virtual organisation comprised of global science and engineering funding agencies aimed at fostering long-term multilateral research and collaboration across continents. From 2017-2022, UKRI held the GRC secretariat, influencing its vision and strategy. It also supported establishing working groups on issues such as Equality, Diversity, and Inclusion (EDI) and Responsible Research Assessment (RRA), helping to shape the global dialogue on R&I policies. By being an active participant in multilateral policy fora, the UK is influencing global thinking and showcasing the UK's thought leadership on global R&I.

The UK's strategic engagement with major geopolitical players includes planning and executing long-term strategies and associated R&I in areas such as nuclear resilience and conventional







stockpiles. This approach enhances the UK's leadership within NATO by continuing the modernization of its armed forces, conducting associated R&I, and drawing on lessons from conflicts like the Ukraine war. Investments in programs like AUKUS and Global Combat Air Programme (GCAP) with Italy and Japan, bolster the UK's national defense capabilities and support global arms control and counter-proliferation efforts. The engagements in these global forums offer clear signaling of the UK's leadership in R&I in key sectors.

The UK's Science and Innovation Network (SIN), with its 65 locations across 4 regions Europe, Asia Pacific, India, Middle East and Africa, and the Americas, builds partnerships and collaborations in science, technology, and innovation, thereby influencing global science diplomacy. SIN' strong networks with local science and innovation organisations support UK policy abroad benefiting both the UK and the host country. SIN's notable success stories include European research programme for offshore wind and marine energy with France, which delivered commercial benefits for the UK, leveraged research funding and influence policy to support UK objectives and address global challenges. The activities underscore SIN's leading impact in maintaining the UK's scientific base, strengthening the competitive advantage of its innovative businesses and addressing shared opportunities and threats. The network aims to showcase the UK 's excellence and leadership in science, technology and innovation on a global scale, while actively fostering partnerships that benefit the UK and provide valuable insights, strengthening UK 's reputation as a leading global R&I collaborator (UK Science and Innovations Network).

Another example is the <u>international partnership on marine protected areas, biodiversity and climate change</u> with Chile. The initiative involved the government agencies such as UK's Joint Nature Conservation Committee (JNCC); Chile's Ministry of the Environment; the National Oceanic and Atmospheric Administration (NOAA) and the Office of National Marine Sanctuaries, both from the US; the Ministry of Energy and Environment, Costa Rica; and the French Biodiversity Agency (OFB).

The UK continues to lead the global research community by establishing new forums and platforms that enhance awareness and support informed decision-making. For instance, the UK launched the Global Coalition on Telecommunications (GCOT) in October 2023, in collaboration with representatives from the US, Australia, Canada, and Japan, to address future telecommunications issues. The UK demonstrates its commitment to fostering global cooperation and reinforces its role as a leader in international R&I by creatively filling gaps in the current multilateral and multi-stakeholder architecture, building global coalitions and likeminded groups, including 'digital deciders,' to shape critical technology and policy development.







By adopting a systems approach and working with international partners on issues such as AI, digital standards, and data governance, the UK shows its dedication to global collaborative R&I. Through initiatives such as the G7, the UK-hosted Future Tech Forum, the UK AI Standards Hub, and collaborations with the Organisation for Economic Co-operation and Development (OECD) via the Global Forum on Technology and the Global Partnership for AI, the UK addresses gaps in the current multilateral and multi-stakeholder architecture. This involves building global coalitions and forming like-minded groups beyond traditional partners, including 'digital deciders' on critical technology and data use, development, and policymaking (IRR, 2023). Additionally, on another international scale, the UK launched the 'Global Forum on Technology' at the OECD focusing on quantum technologies, engineering biology and immersive technology, supported by £2 million of UK funding over a three-year period.

Through forums such as the G20 and the Five Eyes intelligence alliance, the UK advocates for responsible technological advancements and cybersecurity measures, thereby influencing global R&I agenda and security policies. Additionally, the UK has strengthened its science and technology partnerships worldwide, for instance through AUKUS (a trilateral security partnership for the Indo-Pacific region between Australia, the UK, and the US) and through collaboration in global institutions like the G7, G20, NATO, and the International Telecommunication Union (IRR, 2023).

The UK government has also made a commitment to support developing countries via International Climate Finance (ICF) in responding to the global challenges and opportunities of climate change. Between 2016 and 2021, the ICF, endorsed by three government departments including the Foreign, Commonwealth and Development Office (FCDO), Department for Business, Energy and Industrial Strategy (BEIS) and Department for Environment Food and Rural Affairs (Defra), made an investment of £5.8bn, to tackle climate change. As a result, the ICF delivered all UK aims: strengthening global peace, security, and governance, strengthening resilience and response to crises, promoting global prosperity, tackling extreme poverty, and assisting the world's most vulnerable populations. Through participating in multi-lateral fundings, such as the Carbon Initiative for Development (Ci-Dev) - a Word Bank trust fund that supports private finance for clean energy in low-income countries, the UK assists communities to use land in ways that reduce emissions and improve productivity whilst protecting and restoring forests that support important biodiversity and fragile eco-systems. The UK's pivotal role in securing the Paris Agreement in 2015, was demonstrated by its success in reducing emissions quicker than other member countries in G20. All these proactive efforts illustrate the UK's pivotal role in global forums as a leader in climate change, domestically and internationally, including the associated R&I activities.









Supporting international R&I activities through international offices

The UK actively supports bilateral programmes and fosters collaborative R&I initiatives through UKRI (UK Research and Innovation) offices in China, India, North America, and Europe. These offices collectively bolster the UK's stature as a global leader in R&I through strategic international collaborations and serve as vital hubs for deepening partnerships and facilitating innovation across diverse research landscapes, thereby positioning UKRI as a key player in global research and innovation efforts. The collaborations enabled through these offices not only strengthen scientific ties but also contribute to addressing global challenges and advancing technological frontiers, underscoring the UK's commitment to international cooperation in research and development.

For instance, the UKRI office in China actively supports multilateral programmes and fosters significant international collaborations. Since its establishment in 2007, the UKRI China office has performed crucial roles, such as providing strategic insights into China's research landscape, negotiating joint funding programmes, managing key relationships to raise UKRI's profile, and communicating the impact of UKRI's work. UKRI India, established in 2008, has facilitated nearly £400 million in funding commitments across over 260 projects, fostering transformative research partnerships and yielding significant scientific outputs and technical innovations. Meanwhile, UKRI North America, has overseen over £3 billion in collaborative investments since 2015, promoting dialogue and joint initiatives in crucial research areas like climate change adaptation in the Arctic. Additionally, UKRI's office in Brussels (i.e. UK Research Office in Brussels) supports UK participation in Horizon Europe, the EU's €95.5 billion research and innovation programme, where UK academics and businesses have historically secured substantial funding, positioning the UK as a leading beneficiary alongside Germany. UKRI's role as a trusted advisor and promoter of UK research strengths within EU institutions, further enhancing UKRI's impact, and ensuring maximal engagement and influence in European research and innovation policy. These offices collectively underscore the UK's commitment to fostering global research partnerships and advancing scientific excellence across continents.

Additionally, there are other types of networks that the UK is engaged in, which support UK businesses' international engagements. The UK's Intellectual Property Office's IP Attaché Network helps companies in global collaborations navigate intellectual property challenges, ensuring efficient innovation and cooperation. The UK has also established the UK Telecoms Innovation Network, bringing together large companies, SMEs, and academics to stimulate innovation and collaboration, supporting UK companies' participation in global standards organizations (Science & Technology Framework, 2024).







4.3.2 Nature of the generated reputation



Thought leader and influencer in the global R&I agenda

By actively participating in multilateral organizations and taking on leadership roles in forums like the OECD and G7 can influence global research policies, shape norms and standards in critical scientific and technological areas, and maintain its status as a pivotal player in setting the global research agenda.

The UK positions itself as a leader in responsible research and innovation practices sometimes with a sectoral focus such as in AI and cybersecurity. For instance, hosting the inaugural global AI Summit and subsequent events has solidified the UK's role as a pivotal influencer in AI ethics and regulation on the global stage. Following hosting the first Global Investment Summit, the UK announced the creation of three new regulatory sandboxes. The establishment of the AI Safety Institute and the signing of the Bletchley Declaration during the AI Safety Summit exemplify the UK's commitment to advancing safe and responsible AI development worldwide. Furthermore, initiatives like joining the Global Cross Border Privacy Rules Forum as the first Associate Member and attracting US Venture Capital firm Flagship Pioneering to establish its first base outside the US in London underscore the UK's proactive approach to driving global R&I agendas (Science & Technology Forum 2024). These actions not only demonstrate the UK's leadership in international R&I policies but also reinforce its influence in shaping future technological and ethical standards globally.

The UK has launched a campaign to increase applications to Horizon Europe, targeting R&D-intensive UK firms. This campaign emphasises the availability of over £80 billion for researchers, academics, and businesses of all sizes, aiming to maximize UK participation in Horizon Europe, and leveraging the country's expertise to drive innovation and economic growth on a global scale. At the same time, UKRI has put into effect comprehensive monitoring and evaluation frameworks for current international funds, ensuring accountability and optimizing their utilization effectiveness. These plans serve as a blueprint for developing robust monitoring and evaluation frameworks for future funds, aligning with recommendations to streamline bureaucracy and optimize the impact of R&I investments (Science & Technology Framework 2024). This strategic approach underscores the UK's commitment to maximizing the efficiency of its international engagements and leveraging data-driven insights to enhance its global R&I influence and benefits.

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Committed, exemplary member of the international community

The UK's investments in global forums demonstrate its commitment to global cooperation and security, strengthening its reputation as a reliable and dedicated international partner in R&I.







The UK's involvement in global forums has enhanced its reputation as a supporter and role model of international R&I practices. This influence is exemplified by India's establishment of the National Research Foundation (NRF), modelled on successful international bodies like the UK Research and Innovation (UKRI), showcasing the UK's role as an influencer in the global R&I agenda. UKRI's office in India has been involved in discussions regarding the establishment of the new National Research Foundation (NRF) in India and has provided valuable insights into bilateral relationships in-country, exerting 'soft' influence. The NRF was established aiming to consolidate India's fragmented research funding landscape, promote interdisciplinary research, and address national priorities such as clean energy and climate change. UKRI's well-established reputation and expertise in these areas make it a natural partner for the NRF (British Council 2024). This creates opportunities for UK institutions to engage in new research partnerships with Indian universities and colleges, thereby further strengthening bilateral collaborations. The UK's engagement in global forums enhances the UK's global influence and helps partner countries achieve their research and innovation goals (British Council 2024).

4.3.3 Impacts of generated reputation

Table 4.3: Impacts of reputation generated through UK's interactions with global R&I forums

Types of Impact	Specific Impacts
1. Financial Impact - Increased Financial	Enhanced international investment in the UK
returns	
2. Relational Impact - Improved useful	Enhanced status of the UK in international forums
and strategic networks and relationships	
3. Resource Impacts - Increased	Enhanced access to international funds and
availability of resources	scientific capacities for R&I
4. Research and Innovation Impacts -	Increased nation-to-nation /multilateral
Increased research and innovation output	collaborations in delivering ground-breaking
	research
5. Political Influence - Improved national	Increased "Soft" influence of the UK in global
influence internationally	decision and policy making
6. Social and environmental Impacts -	Enhanced ability to shape international
Increased generation of social and	engagement for generating social and
environmental value	environmental value







Case Study: UKCDR in GLoPID-R: A global coalition of research funders

The UK Collaborative on Development Research (UKCDR) partners with government departments and research funders to strengthen and elevate the UK's international development research sector. For over ten years, UKCDR has united UK research funders to discuss priorities and coordinate efforts, ensuring the maximum impact of international development research. As a neutral and impartial entity, UKCDR is governed by the Strategic Coherence of ODA-funded Research (SCOR) Board.

UKCDR's 2022-2025 strategy focuses on three main pillars: mapping, analysis and foresight; convening for joint action; and sharing information and best practices. These efforts aim to highlight the effectiveness and value for money of UK research for development, assess the overall impact of UK investments, bridge funding and delivery gaps, and enhance collaboration with influential funding bodies and key stakeholders to address global challenges.



International R&I activities:

During the COVID-19 pandemic, the collaboration between GloPID-R (Global Research Collaboration for Infectious Disease Preparedness) and UKCDR (UK Collaborative on Development Research) has been instrumental. GloPID-R, supported by 35 member funding organisations and 8 observers including CEPI, EDCTP, ERINHA, ESSENCE on Health Research, GAVI, GOARN, ISIII and WHO enhances preparedness by strengthening research capacity, especially in low-resource settings, to impact global health. It coordinates the funders activities and facilitates the development of groundbreaking regional and international research to ensure a timely and effective response to infectious diseases with pandemic potential, by tracking emerging research trends, identifying key priorities, and providing tools and practical guidance for funding organizations.

<u>UKCDR</u> and <u>GloPID-R</u> developed a project tracker-live database of funded research projects related to the COVID-19 pandemic, that supports coordination and information sharing among key global funding organisations. The GloPID-R and UKCDR, in collaboration with the COVID-19 Clinical Research Coalition organized the virtual <u>COVID-19 Research in Low & Middle Income Countries event</u>, brought together global funders and researchers actively engaged in COVID-19 research across LMICs. In addition, a Living Mapping Review of future research funding has been developed that includes an analysis of research based on UKCDR-GloPID-R Project Tracker, aligned with the priorities outlined in the UN Research Roadmap for the COVID-19 Recovery.



The nature of reputational impacts generated:

All these activities of the coalition between UKCDR and GloPID-R highlight the UK as a thought leader and influencer in the global R&I agenda, demonstrating its commitment as an international member by facilitating international R&I and providing financial and scientific support. The generated reputation leads to multilateral collaborations in groundbreaking research, enhanced status in international collaborative forums, and improved access to international funding and scientific capacities.

Sources: https://www.glopid-r.org/; https://www.glopid-r.org/; https://www.glopid-r.org/; https://www.glopid-r.org/; https://www.glopid-r.org/</a







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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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