

# REPUTATIONAL IMPACTS OF INTERNATIONAL RESEARCH AND INNOVATION

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# 5.2. UK's multilateral funding programmes

The UK's engagement in multilateral funding programmes such as EU Horizon Europe plays a crucial role in enhancing its reputation in research and innovation globally. Politicians and stakeholders take a proactive role in negotiating bespoke deals with improved financial terms to ensure that UK scientists have access to the world's largest research collaboration programmes and international researchers benefit from the UK's strengths. Additionally, these funding programmes foster global research collaborations by creating opportunities for UK researchers and businesses to collaborate with international counterparts. These programmes also offer access to unique resources and infrastructure further enhancing these efforts, and promoting a robust and interconnected research environment. These programmes thus improve the UK' reputation as a proactive and influential leader in international collaborative research, innovation, and technology advancement. These activities also reinforce the UK's leading role in global R&I, complemented by the demonstration of the UK's dedication to driving economic prosperity and social well-being at both national and international levels. The enhanced reputation generates financial, relational, resource, research, innovation, political, social, and environmental value [Figure 5.2].







### Impacts of generated **International activities** The nature of reputation reputation generating reputation generated 1. Financial Impact -Increased Financial returns 1. Proactive role by 2. Relational Impact politicians and stakeholders in negotiating a bespoke deal Improved useful and strategic 1. UK' reputation as a with improved financial terms networks and relationships proactive and influential to ensure that UK scientists **leader** in international 3. Resource Impacts have access to the world's collaborative research, Increased availability of largest research collaboration innovation, and technology resources programme advancement 4. Research and Innovation 2. Fostering global research **Impacts** - Increased research 2. UK's dedication to driving collaborations by creating and innovation output economic prosperity, and opportunities for UK social well-being at national 5. Political Influence researchers and businesses to and international levels. Improved national influence collaborate with international internationally countries 6. Social and Environmental 3. Offering access to unique **Impacts** - Increased resources generation of social and environmental value

Figure 5.2: UK's multilateral funding programmes generating reputational impacts

## 5.2.1 International activities

# Proactive negotiation for bespoke deals in multilateral funding programmes

The UK government and stakeholders negotiate a bespoke deal for the UK's association in multilateral funding programmes. For instance, such negotiation has occurred concerning the UK's association with Horizon Europe, ensuring favourable financial terms and equal participation rights for UK scientists. By securing a tailored agreement, UK leaders showcased a proactive commitment to strengthening collaborative relationships with European and global partners in association with Horizon Europe in 2023. These negotiations not only benefit the UK but are also of significant value to partner countries, which immensely benefit from the UK's strong research, innovation, and associated resources and infrastructure.

The Horizon Europe agreement solidified its commitment to collaborative research, enabling UK-based entities to participate fully in the program alongside EU counterparts. This negotiation emphasized the UK's dedication to maintaining its leadership in global research and innovation efforts despite Brexit uncertainties. This proactive approach assures UK researchers of ongoing access to significant funding opportunities and collaborative networks and enables UK







researchers to lead consortia in cutting-edge projects across fields like health and artificial intelligence. Moreover, inclusion in Horizon Europe's governance enhances the UK's influence and role in shaping collaborative research agendas, driving economic growth, and cementing its role as a leading force in global science and technology.

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# Fostering global research collaborations

Through active participation in multilateral funding programs, the UK expands the breadth and influence of its research endeavours, exemplifying leadership in establishing global research networks. In initiatives like the Trans-Atlantic Platform for Social Sciences and Humanities (T-AP), the UK underscores its dedication to global collaboration in research and innovation, fostering substantial partnerships extending beyond European borders. The UK contributes to the excellence of the European Research Area (ERA) along with non-EU European countries, such as Norway, Iceland, and Switzerland. Canada's participation in Horizon Europe exemplifies this commitment, enhancing collaborative efforts between Canada and the UK and reinforcing transatlantic research alliances, thereby promoting research, innovation, and knowledge exchange. For instance, Canada's affiliation with Horizon Europe expands collaborative ventures between Canada and the UK and strengthens transatlantic research alliances, promoting innovation and the exchange of knowledge.

Another example is the Human Frontier Science Program (HFSP), established in 1989, which has granted over 7000 awards to researchers from more than 70 countries, and 28 HFSP awardees have later received the Nobel Prize for their scientific contributions. The program encourages interdisciplinary collaboration across fields such as physics, mathematics, chemistry, computer science, bioinformatics, nanoscience, engineering, and biology to advance our understanding of complex biological systems. Similarly, The Belmont Forum, established in 2009, to advance transdisciplinary science related to global environmental change has by 2020 awarded over €150 million in funding, benefiting 132 projects and more than 2,000 scientists worldwide.

The UKRI also announced the first projects under the £110 million Climate Adaptation and Resilience research programme at the Africa Climate Summit and UN High-Level Political Forum, supporting groundbreaking research in 26 African and Indo-Pacific countries. Moreover, the £337 million International Science Partnerships Fund (ISPF) offers UK researchers and innovators access to global talent, large-scale facilities, and diverse research ecosystems. This includes Global Centres for Clean Energy programme in collaboration with the US, Canada, and Australia, and a partnership with Japan to develop new technology for nuclear waste disposal.







Participation in programs like Copernicus, the European Earth Observation program, provides UK researchers access to state-of-the-art Earth observation data and services. Access to unique resources such as Copernicus enhances the UK's research capabilities in areas requiring extensive data and infrastructure. Through Copernicus, UK researchers can access highresolution satellite imagery, real-time data on atmospheric composition, and comprehensive climate change indicators. The ability to leverage such advanced data attracts international collaborators seeking to utilize the UK's expertise in environmental monitoring and data analysis. Thus, the UK strengthens its innovative skills and showcases its scientific capabilities in fields such as environmental science, climate change, and space technology. This access not only supports the UK's scientific endeavours but also positions it as a preferred partner for global research initiatives.

These multilateral funding programmes underscore the UK's capacity to engage with leading global research entities, reinforcing its status as a centre for pioneering research and innovative advancements at an international scale.

# 5.2.2 The nature of reputation generated

UK's reputation as a proactive and influential leader in international research collaborations, innovation, and technology advancement

Engagement in these multilateral funding programmes significantly enhances the UK's reputation and commitment to international research, collaboration, innovation, and technology advancement. This leadership demonstrates the UK's strategic vision and reliability in maintaining its position at the forefront of global research and innovation. The UK solidifies its role in shaping collaborative research agendas and establishes itself as a leading force in global science and technology.

# **>>** UK's dedication to driving economic prosperity, and social well-being at national, EU, and international levels

By fostering global research collaborations, the UK exemplifies its dedication to expanding the breadth and influence of its research endeavour in driving economic prosperity, and social wellbeing at national, EU, and international levels. Engaging in multilateral funding programs and initiatives enables the UK to collaborate with international countries on addressing common social-economic challenges, demonstrating the UK's dedication to driving economic prosperity, and social well-being at national, EU, and international levels.







# 5.2.3 Impacts of generated reputation

Table 5.2: Impacts of reputation generated through UK's multilateral funding programmes

Types of Impact	Specific Impacts
1. Financial Impact - Increased Financial	Enhanced business developmental opportunities
returns	for businesses of all sizes
	Enhanced access to funding and foreign investment
2. Relational Impact - Improved useful and	Enhanced opportunities to access, strengthen,
strategic networks and relationships	collaborate with, and/or develop new, useful local,
	regional, national and international networks
3. Resource Impacts - Increased	Improved access to knowledge, expertise and
availability of resources	resources
	Enhanced opportunities to access new national and international infrastructure and/or engage in national and international infrastructure development  Enhanced perceiving of the UK as a resource for future R&I
4. Research and Innovation Impacts -	Opportunities to engage in larger international
Increased research and innovation output	profitable, and strategically relevant projects
5. Political Influence - Improved national	Strengthened international relationships and trust
influence internationally	between the UK and other nations, improving the
	UK's political influence
6. Social and Environmental Impacts -	Enhanced opportunities to collaboratively address
Increased generation of social and	global challenges
environmental value	
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# Case Study: UK's multilateral agreement in Copernicus

Copernicus is the Earth observation component of the European Union's Space Programme, dedicated to monitoring our planet and its environment for the benefit of all European citizens. It provides information services that utilize data from satellite Earth observation and in-situ (non-space) sources.



### International R&I activities:

The European Commission oversees the programme, which is implemented in collaboration with Member States, the European Space Agency (ESA), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), the European Centre for Medium-Range Weather Forecasts (ECMWF), EU Agencies, Mercator Océan, the European Environment Agency (EEA), and the Joint Research Center (JRC).

Since rejoining Copernicus as a full participating state from January 1, 2024, the United Kingdom has significantly broadened its engagement and opportunities within the Copernicus Space Component, leveraging its reputation as a proactive and influential leader in international research collaborations, innovation, and technology advancement.

For instance, UK-based companies are actively participating in ESA's procurement processes via the ESA-STAR portal, which grants access to Invitations to Tender (ITTs) and enables companies to express interest well ahead of tender deadlines. The European Space Agency (ESA) coordinates the delivery of data from upwards of 30 satellites. This proactive involvement enhances their competitiveness in securing contracts for constructing, launching, and operating Copernicus Sentinels. Moreover, UK entities have the opportunity to apply to join the pool of Copernicus Contributing Missions (CCM) through ESA's Dynamic Purchasing System, thereby contributing supplementary data to the Copernicus services and expanding their engagement in the program.

European Earth observation data providers also play a crucial role in Copernicus as contributing missions, enhancing the program's capabilities to meet Earth observation needs across Europe. Companies seeking to join the pool of commercial data providers can submit applications via ESA's Dynamic Purchasing System, accessible through a simple registration process in ESA's procurement system, ESA-star portal. This participation fosters collaboration among commercial providers, advancing Europe's Earth observation objectives by complementing Sentinel data with very high-resolution data. The ongoing CCM procurement process, managed by ESA, aims to integrate advancements in commercial remote sensing technology to meet current and future demands of the Copernicus services, benefiting European citizens with free and open access to Sentinel data and Copernicus services.



# The nature of reputational impacts generated:

Through these initiatives, the UK reinforces its reputation as a capable user of unique data and consolidates its position as a leading force in global Earth observation and space technology. Moreover, the UK's enhanced role in Copernicus underscores its capability to contribute to cutting-edge solutions in environmental monitoring and disaster management, thereby bolstering its global standing in space technology and Earth observation science. This reputation not only facilitates technological innovation within Europe but also strengthens international collaborations aimed at addressing global challenges through advanced satellite data and analytics.

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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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